Vertical Recommendation for Use sheets (RfUs)

of the European Coordination of Notified Bodies in the field of PPE

Vertical Group 1 - status in November 2015	<u>Vertical Group 1</u>	-	status	in	November	2015
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<u>Vertical Group 2</u> - status in November 2015

<u>Vertical Group 3</u> - status in March 2013

<u>Vertical Group 4</u> - status in November 2015

<u>Vertical Group 5</u> - status in December 2012

Vertical Group 7 - status in December 2012

Vertical Group 8 - status in November 2015

<u>Vertical Group 9</u> - status in November 2015

<u>Vertical Group 10</u> - status in November 2015

<u>Vertical Group 11</u> - status in November 2015

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 1 "Head Protection" of the European Coordination of Notified Bodies in the field of PPE

No.	Version	Reference	Key words	Approved by Vertical Group 1	Approved by Horizontal Committee	Approved by PPE Expert Group
01.001	02	EN 397:1995 (+A1) & EN 397:2012, Clause 6.11.2	Industrial helmet, lateral deformation test, test procedure	18/04/2012	12/12/2012	12/03/2013
01.002	04	EN 812:2012	Industrial bump caps, ventilation	18/07/2014	30/12/2014	19/09/2015
01.003	04	Various	Shock absorption, falling headform, alignment, procedure	08/05/2014	30/12/2014	19/09/2015
01.004	02	EN 1384:1996, EN 1384:2012	Helmets for equestrian activities, peak, deflection	22/04/2013	30/12/2014	19/09/2015
01.005	00	General	Helmet sizing	31/05/2010	15/06/2011	15/05/2012
01.006	04	Various	Kerbstone anvil	08/05/2014	30/12/2014	19/09/2015
01.007	00	All	Test method standards	31/05/2010	15/06/2011	15/11/2012
01.008	00	EN 443:2008, Clause 5.7	Retention system effectiveness, Pre-requisites	31/05/2010	15/06/2011	15/11/2012
01.009	00	EN 443:2008, Clause 5.4, 5.5	Shock absorption, Resistance to penetration	31/05/2010	15/06/2011	15/11/2012
01.011	01	EN 397:1995 & 2012, Clause 6.1.4	Chin strap anchorage	18/04/2012	12/12/2012	12/03/2013
01.012	01	Various	Secondary impacts	18/04/2012	12/12/2012	12/03/2013
01.013	01	En 1078:1997 & 2012, Clause 4.6.3	Retention system, Fastening device	18/04/2012	12/12/2012	12/03/2013
01.014	01	Various	Penetration test block, radius	18/04/2012	12/12/2012	12/03/2013
01.015	02	EN 1077:2007, clause 5.4	Test area	08/05/2014	30/12/2014	19/09/2015
01.016	03	EN 397:1995 & 2012, EN 812:1997 & 2012	Shock absorption, resistance to penetration, impact velocity	08/05/2014	30/12/2014	19/09/2015
01.017	01	EN 397:1995 & 2012, Clause 5.2.1	Very low temperature, pre-conditioning	18/04/2012	12/12/2012	12/03/2013
01.018	01	EN 397:1995 & 2012	Harness, internal vertical clearance	18/04/2012	12/12/2012	12/03/2013
01.019	01	EN 443:2008, Clause 4.11 Flame resistance	Helmets for fire fighting; flame resistance	18/04/2012	12/12/2012	12/03/2013
01.021	01	EN 397:2012 + A1:2012, clause 5.2.5	Molten metal splash, assessment	19/07/2013	30/12/2014	19/09/2015
01.022	01	Various	Test position, penetration testing, molten metal testing	22/04/2013	30/12/2014	19/09/2015

Status: November 2015

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 1 "Head Protection" of the European Coordination of Notified Bodies in the field of PPE

No.	Version	Reference	Key words	Approved by Vertical Group 1	Approved by Horizontal Committee	Approved by PPE Expert Group
01.023	01	EN 12492:2012, clause 5.6	Penetration testing, sample restraint	22/04/2013	30/12/2014	19/09/2015
01.024	01	EN 397:2012 + A1:2012, EN 12492:2012	Dual-marking	22/04/2013	30/12/2014	19/09/2015
01.025	01	EN 397:2012 + A1:2012, clause 6.12.2	Molten metal test, orientation	19/07/2013	30/12/2014	19/09/2015
01.026	01	EN 397:2012 + A1:2012, clause 4.9	Ventilation, area measurement, covers	19/07/2013	30/12/2014	19/09/2015
01.027	01	EN 443:2008, clause 5.4.1	Shock absprption, headforms	19/07/2013	30/12/2014	19/09/2015
01.028	01	EN 443:2008, clause 5.8	Retention system strength, headforms	19/07/2013	30/12/2014	19/09/2015
01.029	01	EN 812:2012, clause 5.8	Marking	19/07/2013	30/12/2014	19/09/2015
01.030	01	EN 12492:2012, clause 4.1.4	Ventilation	19/07/2013	30/12/2014	19/09/2015
01.031	02	EN 1384:2012, clause 4.1	Thickness measurement, area of protection	08/05/2014	30/12/2014	19/09/2015
01.032	01	EN 1384:2012, clause 6.2	Test sequence, sample restoration	19/07/2013	30/12/2014	19/09/2015
01.033	01	EN 14052:2012 + A1:2012, clause 5.2.2	Resistance to penetration, helmet test support	19/07/2013	30/12/2014	19/09/2015
01.035	01	Various	Test headforms, helmet size	18/07/2014	30/12/2014	19/09/2015
01.036	01	EN 13484:2012, figure 2	Extent of coverage	18/07/2014	30/12/2014	19/09/2015
01.037	01	EN 1385:2012, clause 5.2 & figure 1	Coverage	18/07/2014	30/12/2014	19/09/2015
01.038	01	EN 1385:2012, clause 7.8 & figure 4	Retention system effectiveness	18/07/2014	30/12/2014	19/09/2015
01.039	01	EN 397:2012, clause 7.1 f)	Helmet shell, materials, marking	18/07/2014	30/12/2014	19/09/2015

Note: Recommendation for Use sheets which deal with withdrawn and / or superseded standards and which no longer apply to new certifications are published as reference for previous files.

Status: November 2015

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CNB/P/01.001 Revision 02 Language: E

***	RECOMMENDATION FOR USE						
Number of pages: 1	Date: 10 April 2012		Approval by :	Approved on :			
Origin: VG 1			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	18/04/2012 12/12/2012 12/03/2013			
Question related to:		EN/prEN: EN 397:1995 (+A1) & EN Other: 397:2012					
Annex: Ar	icle:	Clause: 6.					
Key words: Industrial helmet, lateral d	eformation test, test proc	edure					
Question: In the case of helmets whi use "bridging elements" so				s, is it permissible to			
Background: differing results in the lateral deformation test of one industrial helmet type had been reported for UTAC and BSI. Different location of the loading plates on the sides of the helmets turned out to be the reason for the discrepancy. Whereas UTAC located the loading plates directly on the shell, notwithstanding any localized projections such as rivets, BSI bridged the projections on the shell by means of wooden elements.							
Solution:							
No.							
The test procedure in whice elements) is the relevant of 397 does not allow any other states and the states of the	one for the lateral deforma						
Sent to: members of the VG	other(s) VG 🔀 HC (2)	⊠ TC ((3) SC (4) other	er (5)			
(5)							



CNB/P/01.002 Revision 04 Language: E

* * *	RECOMMENDA		
Number of pages: 1	Date: 9 June 2014	Approval by :	Approved on :
Origin : VG 1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	18/07/2014 30/12/2014 19/09/2015
Question related to:		EN/prEN: EN 812:2012	Other:
Annex:	Article:	Clause: 4.7	
Key words:			
Industrial bump cap	os, ventilation		
Question:			
those found at the	esigned with 'cut-outs' that exter rear of a bump cap designed wit flexing of the shell for comfort o	th the appearance of a basebal	I cap or those
Should such cut-ou	t features be considered as hole	es for ventilation purposes?	
Solution:			
No.			
Sent to: Members of	the VG	□ TC (3) □ SC (4) □ oth	er (5)
(5)			



CNB/P/01.003 Revision 04

	PPE-Directive 89/686/EEC + amendments			Language: E	
* * *					
Number of pages: 2	Date: 07/05/14		Approval by :	Approved on :	
Origin : VG 1	1			08/05/2014	
				30/12/2014	
				19/09/2015	
Question related to:		EN/prEN:	Various	Other:	
Annex:	Article:	Clause:		U	
Key words:		- 11			
Shock absorption, fall	ing headform, alignment, pro	ocedure			
Question:					
What is the correct po absorption testing?	sitioning procedure of the h	elmeted h	eadform for falling hea	adform shock	
The following standard	ds are affected:				
EN 966 : 1996 (+A1/A	2) & EN 966 : 2012	clau	se 7.2.3		
EN 1077 : 2007			se 5.5 (refers to EN 1	3087-2 : 2000 cl. 5.3)	
EN 1078 : 1997 (+A1)			se 5.4		
EN 1080 : 1997 (+A1)			se 5.4		
EN 1384 : 1996 (+A1)			se 6.4		
EN 1385 : 1998 (+A1)			se 7.6		
	A1) & EN 13087-2 : 2012		se 5.3		
EN 13484 : 2001 & EI			se 5.7		
EN 13781 : 2001 & EI	N 13781 : 2012	clau	se 5.4		

Solution:
Align the target impact point with the centre of the anvil and rotate the headform so that the centre of gravity of the headform, target impact point and anvil centre all lie on the same vertical axis.
Ideally, positioning should also place the line tangential to the external surface of the helmet at the target impact point, parallel to the anvil surface. However, if this cannot also be achieved, then priority shall be given to the alignment between headform centre of gravity, target point and anvil centre.
In circumstances when a tangential impact cannot be achieved, it is accepted that this may lead to the target impact point not being the first point of impact. This is acceptable so long as the first point of contact with the anvil is not so close to the edge of the anvil as to affect the test.
Considerations:
The various standards include various and differing statements regarding positioning:
"the system shall comprisea system by which the point of impact can be brought into correspondence with the centre of the anvil." (e.g. EN966, EN1078, EN1080, EN1385)
"The impacts shall be directed towards the centre of gravity of the headform." (e.g. EN1077)
"shall comprisea system to align the impact site with the centre of the anvil." (e.g. EN1384)
"The test headform shall be so positioned that the designated point on the helmet is vertically above the centre of the anvil. The plane tangential to the point of impact shall be horizontal." (e.g. EN13781)
Some of the standards include more than one of these statements, whilst some do not describe the positioning.
If the headform CoG is not aligned with the target impact point and the centre of the anvil, rotation will occur which may affect results. If the target point of impact is not tangential with the anvil and is not the first point of contact, this will also induce rotation which again may affect results. VG1 considers that the effect of rotation caused by misalignment of the CoG is more critical and therefore alignment of the CoG should be prioritised.
Sent to: ☑ members of the VG ☐ other(s) VG ☑ HC (2) ☑ TC (3) ☑ SC (4) ☐ other (5)
(5)



CNB/P/01.004 Revision 02 Language: E

***	RECOMMENDATION FOR USE				
Number of pages: 1	Date: 2012-04-10	Approval by :	Approved on :		
Origin: VG1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2013-04-22 2014-12-30 2015-09-19		
Question related to:		EN/prEN: EN 1384:1996 & EN1384:2012	Other:		
Annex:	Article:	Clause:			
Key words: Helmets for e	questrian activities, peak, deflection				
Question:					
For the purpose of testing	peak deflection, what should be considered	ed a peak, because the definitions given a	are not clear?		
This sheet relates to the f	ollowing standards:				
EN 1384:1996 (+A1) & EI	N 1384 : 2012 clauses 3.10, 5.5 &	6.8			
Solution:					
	eyes may be provided by an extension forw the construction of the helmet, such an extension to wearer from, the helmet.				
not made from the same	ose construction incorporates a shell fitted material as the protective padding (that is, is the protective padding, it is considered no	it is made from the same material of the s			
	ose construction does not incorporate a sh considered not to be a peak if it is integral				
Sent to: Members of	the VG	□ TC (3) □ SC (4) □ other □ TC (3) □ SC (4) □ other	ner (5)		
(3): TC158 (5):					



PPE-Directive 89/686/EEC + amendments RECOMMENDATION FOR USE

CNB/P/01.005

Revision 00 Language: E

Number of pages: 1	Date : 27 April 2010		App	proval by :		Approved on :
Origin : VG1				Vertical Group		
			$\overline{\mathbf{A}}$	Horizontal Committe		
			$\overline{\mathbf{Q}}$	Standing Committee		15/05/2012
Question related to: General		EN/prEN	:		Othe	er:
Annex:	Article:	Clause:				
Key words : Helmet sizing						
Question:						
During certification a manufa	acturer submits helmets, declaring	g size rang	es. V	Which actions should the	ne No	tified Body/Test
Laboratory take in relation to		<i>5</i>				
(Note, this document is based	l upon R2003_1 issued 28/03/03)				
Solution:						
If a manufacturer submits a h Laboratory should check that	elmet for certification, declaring declared sizes are correct.	the size or	size	range of the helmet, the	he No	otified Body/Test
The test report should state the range in centimetres.	ne tested sizes or size range, and t	the certification	ate s	hould clearly state the	appro	oved sizes or size
Marking of the helmet with s	izes not covered by the certificat	ion should	not l	e allowed.		
<u> </u>		N 2				
	f the VG other(s) VG	\bowtie HC	(2)	\square TC (3) \boxtimes	SC ($(4) \Box \text{other } (5) $
(5)						



CNB/P/01.006 Revision 04 Language: E

RECOMMENDA				
Number of pages: 1 Date: 7 May 2014	Approval by :	Approved on :		
Origin: VG 1	✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	08/05/2014 30/12/2014 19/09/2015		
Question related to:	EN/prEN: Various	Other:		
Annex: Article:	Clause:			
Key words: Kerbstone anvil				
Question: How shall a test be performed using the kerbstone The following standards are affected:	anvil?			
EN 966 : 1996 (+A1/A2) & EN 966 : 2012				
Solution:				
The kerbstone anvil simulates the pavement edge;	this means it has to be conside	ered of endless length.		
For practical and technical reasons these anvils ha	ve a limited length as specified	in the standards.		
Test shall be performed in such a way that the edg results (for example by directly contacting, during p		le, do not affect the		
Sent to:	□ TC (3) □ SC (4) □ other	er (5)		



PPE-Directive 89/686/EEC + amendments RECOMMENDATION FOR USE

CNB/P/01.007 Revision 00

Language: E

Number of pages : 1	Date : 27 April 2010		Approval by :			Approved on :	
Origin: VG1			\checkmark	Vertical Group Horizontal Committee Standing Committee	e	15/06/2011	
Question related to:		EN/prEN	: All		Other	r:	
Annex:	Article:	Clause:					
Key words: Test method standards							
Question:							
If a specific product standard does not cover all test specifications and possible interpretations and there is no direct reference to test method standards (EN13087 series) how should the Test Laboratory proceed in performing tests and verification?							
(Note, this document is based	upon R2007_1 issued 23/11/07))					
Recommended solution:							
	described or clarified in the app pecific one, the Test Laboratory suct tests.						
	nce between the procedure/equip e product standard shall take prec		proc	duct standard and that	in the	test method	
	nged to highlight individual situal dation for Use sheet can be raised				from	the product standard	
Sent to: members of (5)	f the VG other(s) VG	⊠ нс	(2)		SC (4)	



PPE-Directive 89/686/EEC + amendments RECOMMENDATION FOR USE

CNB/P/01.008

Revision 00 Language: E

Number of pages: 1	Date: 13 May 2009		App	proval by :		Approved on :
Origin:			 ✓ Vertical Group31/05/2010 ✓ Horizontal Committee15/06/2011 ✓ Standing Committee15/11/2012 			15/06/2011
Question related to :		EN/prEN	: EN	443 : 2008	Othe	er:
Annex:	Article:	Clause : 5	.7			
Key words:						
Retention system effecti	veness, Pre-requisites					
Question: EN 13087-5: 2000 clause 4 point f) requires the performance standard to specify the "direction of application of the force". EN 443: 2008 clause 5.7 does not do this, so how shall the force be applied?						
Recommended solution:			1.1		•.•	
The force shall be applied both	th to the front and rear in two sep	arate tests,	alth	ough the order is not o	eritica	II.
The single sample specified b	by EN 443 : 2008 table B.1. shall	be used for	r bot	h tests.		
The single sample must satisfy the requirements for both the front and rear tests in order that the model be considered acceptable. Sent to: members of the VG other(s) VG HC (2) TC (3) SC (4) other (5)						
Sent to: \square members of (5)	f the VG	⊠ нс	(2)		SC	(4) other (5)



PPE-Directive 89/686/EEC + amendments RECOMMENDATION FOR USE

CNB/P/01.009

Revision 00 Language: E

Number of pages: 1	Date: 13 May 2009		App	proval by :		Approved on :
Origin: VG1			$\overline{\checkmark}$	Vertical Group Horizontal Committe Standing Committee	e	15/06/2011
Question related to :		EN/prEN	: EN	443 : 2008	Othe	er:
Annex:	Article:	Clause: 5	.4, 5	.5		
Key words:						
Shock absorption, Resist	ance to penetration					
Question: In the case of helmets fitted or supplied with face protectors that are covered by the definitions of clause 3.18 "integral additional protective function" or clause 3.19 "non-integral protective functions", how should the face protector be positioned when testing to clause 4.2 "Shock absorption" or 4.3 "Resistance to penetration"?						
Recommended solution :						
	placed in its "in-use" position					
Sent to: members of (5)	f the VG other(s) VG	⊠ нс	(2)		SC	(4) other (5)



CNB/P/01.011 Revision 01 Language: E

	RECOMMENDA	RECOMMENDATION FOR COL			
Number of pages: 1	Date: 2012-04-10	Approval by :	Approved on :		
Origin: VG1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2012-12-12		
Question related to:		EN/prEN: EN397:1995 & 2012	Other:		
Annex:	Article:	Clause: 6.1.4			
Key words: Chin strap and	horage	L			
Question:					
Where are acceptable point	nts of breakage for this test?				
	and where the attachment begins can be r which the anchorage may be considered				
Solution:					
Clause 3.9, which provides strap to the 'helmet'.	s the definition for a 'chin strap anchorage'	, is ambiguous, not least because it refe	rs to attachment of the chin		
	is not possible. It has been interpreted that considered to be due to the chin-strap and		conflict with the following		
a) Failure must occur at the shell/headband side of any chin strap adjustment mechanism; b) Failure must not attributable to any chin strap closure device; c) Failure must not occur under the chin or around the jaw area; d) Failure must not occur for what is obviously the chin strap material.					
Sent to: Members of	the VG other(s) VG HC (2)		her (5)		
(3): 158 (5):	. , , , ,	• •			
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CNB/P/01.012 Revision 01 Language: E

* * *	RECOMMENDATION FOR USE			
Number of pages: 1	Date: 14 April 2011		Approval by :	Approved on :
Origin: VG 1			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	18/04/2012 12/12/2012 12/03/2013
Question related to:		EN/prEN: \		Other:
Annex:	Article:	Clause:	l	
Key words: Secondary impacts				
Question:				
Shall the results for	secondary impacts, i.e. after bo	ounce, be	considered when ma	king assessment?
Solution:				
No.				
	ring secondary impacts, i.e. afte			
Sent to: members of (5)	the VG	⊠ TC (3	3) 🛛 SC (4) 🗌 othe	er (5)



CNB/P/01.013 Revision 01 Language: E

* * *	RECOMMENDA					
Number of pages: 1	Date: 10 April 2012	Approval by :	Approved on :			
Origin : VG 1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	18/04/2012 12/12/2012 12/03/2013			
Question related to:		EN/prEN: EN 1078:1997 & 2012	Other:			
Annex:	Article:	Clause: 4.6.3				
Key words: Retention system, F	-astening device					
Question:						
	In cases where the design of the product ensures that the buckle does not sit on the jawbone, is it essential that the fastening device is capable of adjustment?					
Solution:						
No.						
The primary purpos	se of this requirement is to ensu	re that the device does not si	t on the jawbone.			
Buckles positioned under the chin or around the jaw area would need to be moveable. Buckles positioned high on the side of the face that would not sit on the jawbone would not need to be moveable. Sent to: members of the VG other(s) VG HC (2) TC (3) SC (4) other (5)						
(5) members of	the VG	□ TC (3) □ SC (4) □ c	other (5)			



CNB/P/01.014 Revision 01 Language: E

* U * ***	RECOMMENDATION FOR USE				
Number of pages: 1	Date: 10 April 2012		Approval by :	Approved on :	
Origin : VG 1			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	18/04/2012 12/12/2012 12/03/2013	
Question related to:		EN/prEN:	Various	Other:	
Annex:	Article:	Clause:		I	
Key words: Penetration test bloo	ck, radius				
Question:					
What is the correct r	adius for the penetration test	block?			
Solution:					
The radius should be	e 65mm, with a tolerance of ±	1mm.			
Reason:					
•	1), EN 1384 : 2012, EN 12492 that include specifications for	•	•	and EN 13087-3 :	
(EN 13087-3 is refer	rred to by EN 443 : 2008, EN	1077 : 200	7, EN 14052 : 2005 &	EN 14052 : 2012)	
•	EN 1384 : 1996 (+A1) and EN 1384 : 2012 clause 6.5.2 specify a block with a radius of 65mm. They do not include a figure for the block, nor do they specify a diameter.				
EN 12492 : 2000 (+A1) & EN 12492 : 2012 include a figure showing a block of radius 66.5mm with a diameter of 165mm. These dimensions are incompatible.					
EN 13087-3 : 2000 figure 1 shows the radius of the test block as 65mm, but the diameter as 160mm. These dimensions are incompatible.					
Either of the diameters stated would give a circumference larger than 495mm. The radius of 65mm would give a diameter that would permit the relevant sizes of helmet to be fitted and allow movement to test different positions.					
Sent to: Members of t	ne VG	2) X TC ((3) SC (4)	er (5)	
(5)					

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CNB/P/01.015 Revision 02

	11 L-Directive 03/000/LEG - amendments			Language: E
* * * *	RECOMMENDATION FOR USE			
Number of pages:	Date: 2014-05-07 Appr		Approval by :	Approved on :
Origin: VG1			○ Vertical Group ○ Horizontal Committee ○ Standing Committee	
Question related to:		EN/prEN:	EN 1077 : 2007	Other:
Annex:	Article:	Clause: 5	.4	*
Key words: Test area				
Question: How should the specified	test area be marked on the helmet?			
Considerations:				
EN1077:2007 is the only shelmet.	standard (in the field of head protection) th	at defines th	ne impact test area on the hea	dform rather than on the
	the test area has to be reproduced on the l test areas being marked on the helmet, an			how this should be marked,
Solution:				
The test area should be p	rojected horizontally from the headform to	the outer he	elmet surface.	
side corners (points C, D, the vertical longitudinal pla	1 – Lines helmet outer shell 2 – Lines test area horizonta	ngitudinal pit shall be co	ane, while for front and rear p innected by lines, using for ex	oints (points A' and B) along ample a flexible rule.
Sent to: Members of	the VG	⊠ TC	(3) SC (4)	er (5)
(3): TC158 (5):				



CNB/P/01.016 Revision 03 Language: E

* * *	RECOMMENDA		
Number of pages: 1	Date: 7 May 2014	Approval by :	Approved on :
Origin : VG 1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	08/05/2014 30/12/2014 19/09/2015
Question related to:		EN/prEN: EN 397:1995 & 2012	Other:
		EN 812:1997 & 2012	
Annex:	Article:	Clause: EN 397 – 6.6.2, 6.7.2 / EN 81	2 – 6.5.2, 6.6.2
Key words:			
Shock absorption, F	Resistance to penetration, impac	ct velocity	
Question:			
	value for the maximum permitte city for the stated drop height?	ed difference between the actua	al impact velocity and
Solution:			
No, the permitted di	ifference should be 5% maximu	m.	
0.5% is impractical	and all other TC158 standards t	that specify a similar requireme	ent state 5%.
Sent to: members of	the VG other(s) VG HC (2)		er (5)
(5)			



CNB/P/01.017 Revision 01 Language: E

* # *	RECOMMENDA'		
Number of pages: 1	Date: 10 April 2012	Approval by :	Approved on :
Origin : VG 1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	18/04/2012 12/12/2012 12/03/2013
Question related to: Annex:	Article:	EN/prEN: EN 397:1995 & 2012 Clause: 5.2.1	Other:
Key words: Very low temperatu	re, pre-conditioning		
Question:			
	erform shock absorption and pe C or -30°C has been requested		very low temperature
Solution:			
Yes, because testing	ng at -10°C is a mandatory requi	irement.	
Sent to: Members of	the VG other(s) VG HC (2)		ner (5)
(5)			



CNB/P/01.018 Revision 01 Language: E

***	RECOMMENDATION FOR USE				
Number of pages: 1	Date: 2012-04-18	Approval by :	Approved on :		
Origin: VG1 2010		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2012-12-12		
Question related to:		EN/prEN: EN397:1995 & 2012	Other:		
Annex:	Article:	Clause:			
Key words: Harness; Inter	nal vertical clearance	1			
Question: Can an industrial helmet w	rith an EPS liner in place of a conventiona	ll harness comply with EN397?			
Solution:					
Probably not.					
There is no specific requirement that requires the use of a conventional harness. However, the Note under clause 3.5 implies that a certain design was being considered when the standard was written. Whilst the presence of an EPS liner may not be cause for failure in itself, the group could not envisage a situation in which compliance with the requirements of clause 4.4 Internal vertical clearance could be met with an EPS liner instead of a conventional harness. The requirements for Internal vertical clearance relate to ventilation. Whilst EN397 has dealt with this in a design restrictive manner, Notified Bodies must ensure that helmets meet ALL requirements of a standard in order to be marked with the standard number.					
Sent to: ☑ members of the VG ☐ other(s) VG ☑ HC (2) ☑ TC (3) ☑ SC (4) ☐ other (5)					
Sent to: members of (3): 158 (5):	the VG other(s) VG HC (2)	0 ⊠ TC (3) ⊠ SC (4) □ ot	ner (5)		



CNB/P/01.019 Revision 01 Language: E

***	RECOMMENDATION FOR USE		
Number of pages: 1	Date: 2012-03-22	Approval by :	Approved on :
Origin: VG1 Head Protection	on	✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2012-12-12
Question related to:		EN/prEN: EN 443 : 2008	Other:
Annex:	Article:	Clause: 4.11 Flame resistance	
Key words: Helmets for Fir	re Fighting; Flame resistance		
Question:			
5.13 "flame resistance" by	ne tests described in EN 443:2008 "Helme the tests described in EN 136:1998 clause ling to clause 6 of the standard with "EN44	es 7.6.3 and 8.5.2 during an Approval ar	
Solution:			
No.			
The tests in EN 443:2008 to	clauses 4.11 and 5.13 are completely diffe	erent from the tests in EN 136:1998 claus	ses 7.6.3 and 8.5.2 with regard
- time of impact,			
- distance of the burn	ners and sample under test,		
- burner flame,			
- positioning of the te	est sample.		
Sent to: members of t	the VG other(s) VG HC (2)	☐ TC (3) ☐ SC (4) ☐ ott	ner (5)
(5)			
<u> </u>	<u> </u>		



CNB/P/01.021 Revision 01 Language: E

***	RECOMMENDA ⁻				
Number of pages: 1	Date: 2013-04-22	Approval by :	Approved on :		
Origin: VG1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2013-07-19 2014-12-30 2015-09-19		
Question related to:		EN/prEN: EN 397:2012 + A1:2012	Other:		
Annex:	Article:	Clause: 5.2.5			
Key words: Molten metal	splash, assessment				
Question: Shall assessment be limit	ed to the 50mm radius circle onto which the	e liquid metal is poured, or shall it apply t	o other areas of the helmet?		
Solution: Assessment shall apply to the shell of the helmet. With reference to the definition of clause 3.4, 'brim', the shell does not include a brim or gutter.					
Reason: The 50mm radius circle is just a target point for pouring of the metal.					
Sent to: members of	the VG		er (5)		
(3): TC158 (5):					



CNB/P/01.022 Revision 01 Language: E

* * *	RECOMMENDATION FOR USE		
Number of pages: 1	Date: 2013-04-22	Approval by :	Approved on :
Origin: VG1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2013-04-22 2014-12-30 2015-09-19
Question related to:		EN/prEN: Various (see below)	Other:
Annex:	Article:	Clause: Various (see below)	*
Key words: Test position,	Penetration testing, Molten metal testing		
Question:			
Certain standards make r cap is not defined, so what	reference to the "top" of the helmet/bump cat is the "top"?	ap when defining certain test positions. T	he top of the helmet/bump
Solution:			
of the headform, should t	np cap is that point on the outside surface the helmet/bump cap be fitted normally to a et/bump cap when fitted to the test headfor	headform of appropriate size. This may,	
This applies to the following	ng standards/clauses:		
EN 397:2012 + A1:2012 (EN 812:2012 clause 6.6.3) EN 12492:2012 clause 5. EN 14052:2012 +A1:2013	3 6.1		
Sent to: Members of	f the VG	□ TC (3) □ SC (4) □ oth	er (5)
(3): TC158 (5):			



CNB/P/01.023 Revision 01 Language: E

* * *	RECOMMENDATION FOR USE			
Number of pages: 1	Date: 2013-04-22	Approval by :	Approved on :	
Origin: VG1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2013-04-22 2014-12-30 2015-09-19	
Question related to:		EN/prEN: EN 12492:2012	Other:	
Annex:	Article:	Clause: 5.6	.u	
Key words: Penetration tes	ting, sample restraint			
Question:				
How much restraint shall b	e used to hold a sample in position for tes	sting?		
Solution:				
As little restraint as possibl reasonably significant amo	e shall be used, but enough to ensure tha unt of restraint.	It the test is performed correctly. In some	e cases, this may be a	
Rationale:				
For some designs of helmet, rotating the helmet upon the test block in order to target different parts of the 50mm radius circle may result in the test block being able to pass between the harness so that the shell rests on the test block. This situation would not occur when such a product was fitted on to a person or a full test headform. This was agreed to be an unfair condition and that sufficient restraint strapping should be used to prevent such occurrence during the test.				
Sent to: ⊠ members of t (3): TC158 (5):	he VG	☑ TC (3) ☑ SC (4) ☐ oth	ner (5)	



CNB/P/01.024 Revision 01 Language: E

$\star\star\star$	RECOMMENDATION FOR USE			
Number of pages: 1	Date: 2013-04-22	Approval by :	Approved on :	
Origin: VG1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee		
Question related to:		EN/prEN: EN 397:2012 + A1:2012 and EN 12492:2012	Other:	
Annex:	Article:	Clause:		
Key words: Dual-marking				
Question:				
Is it possible to approve a	product dual-marked for compliance with E	EN397:2012 + A1:2012 and EN12492:20	12?	
Solution:				
Yes.				
One way to achieve this is	described below.			
In principle, the helmet shall satisfy the design and performance requirements of each standard. In order to do this, the product can be provided with two chin-straps, one to satisfy the retention system requirements of EN397 and the other to satisfy the retention system requirements of EN12492. In such a case, the chinstraps must be very clearly labelled as to the applicability for each standard and the user instructions shall state clearly how the helmet is to be configured in order to satisfy each standard.				
Sent to: Members of	the VG	□ TC (3) □ SC (4) □ oth	er (5)	
(3): TC158 (5):				



CNB/P/01.025 Revision 01 Language: E

* * *	RECOMMENDATION FOR USE		
Number of pages: 1	Date: 2013-04-22	Approval by :	Approved on :
Origin: VG1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2013-07-19 2014-12-30 2015-09-19
Question related to:		EN/prEN: EN 397:2012 + A1:2012	Other:
Annex:	Article:	Clause: 6.12.2	u
Key words: Molten metal te	est, orientation		
Question:			
	the helmet and headform be placed when	the test is performed?	
Solution:			
	ertical and the helmet fitted in a normal we		
Sent to: members of t	he VG		er (5)
(3): TC158 (5):			



CNB/P/01.026 Revision 01 Language: E

***	RECOMMENDATION FOR USE		
Number of pages: 1	Date: 2013-04-22	Approval by :	Approved on :
Origin: VG1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2013-07-19 2014-12-30 2015-09-19
Question related to:		EN/prEN: EN 397:2012 + A1:2012	Other:
Annex:	Article:	Clause: 4.9	l
Key words: Ventilation, are	ea measurement, covers		
Question:			
Which area of ventilation s	hould be assessed when the helmet incluent the same area as the aperture(s) in the		e the area of the aperture(s) in
Solution:			
The area of the smallest ap	perture(s) should be assessed, whether the	nis/these be in the cover/external layer or	n the internal layer.
Sent to: Members of t	the VG other(s) VG HC (2)		er (5)
(3): TC158 (5):			



CNB/P/01.027 Revision 01 Language: E

	RECOMMENDA	RECOMMENDATION FOR COL	
Number of pages: 1	Date: 2013-04-22	Approval by :	Approved on :
Origin: VG1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2014-12-30
Question related to:		EN/prEN: EN443:2008	Other:
Annex:	Article:	Clause: 5.4.1	ــــــــــــــــــــــــــــــــــــــ
Key words: Shock absorpt	ion, headforms		
Question:			
For shock absorption testing headforms that comply only	ng of area 1a, should the headforms comp ly with EN 960:1994?	ly with the requirements of EN 960:2006	S, or is it acceptable to use
Solution:			
The headforms should con	mply with EN960:2006.		
Rationale:			
	requires testing to be performed in accord. According to referencing rules, it could be		
However, EN 443:2008 its	elf makes dated reference to EN 960:2006).	
Therefore, the interpretation headform sizes complying	on has been made that testing should be pwith EN 960:2006.	erformed in accordance with EN 13087-	2:2000, but using equivalent
Sent to: members of t	the VG		her (5)
(3): TC158 (5):			
(-).			



CNB/P/01.028 Revision 01 Language: E

**				
Number of pages: 1	Date: 2013-04-22		Approval by :	Approved on :
Origin: VG1			□ Vertical Group □ Horizontal Committee □ Standing Committee	2014-12-30
Question related to:		EN/prEN:	EN443:2008	Other:
Annex:	Article:	Clause: 5.		l
Key words: Retention system	n strength, headforms	l .		
Question:				
For retention system strengt headforms that comply only	h testing, should the headforms comply with EN 960:1994?	with the req	uirements of EN 960:2006, or	is it acceptable to use
Solution:				
The headforms should comp	oly with EN960:2006.			
Rationale:				
EN 443:2008 clause 5.8 req to EN 960:1994. According	uires testing to be performed in accordar to referencing rules, it could be assumed	nce with EN I that the he	13087-5:2000. EN 13087-5: adforms should therefore con	2000 makes dated reference nply with EN 960:1994.
However, EN 443:2008 itself	f makes dated reference to EN 960:2006) .		
Therefore, the interpretation headform sizes complying w	has been made that testing should be prith EN 960:2006.	erformed in	accordance with EN 13087-5	:2000, but using equivalent
Sent to: Members of the	e VG	□ TC ((3) SC (4)	er (5)
(3): TC158 (5):				



CNB/P/01.029 Revision 01 Language: E

***	RECOMMENDA	RECOMMENDATION FOR OCE	
Number of pages: 1	Date: 2013-04-22	Approval by :	Approved on :
Origin: VG1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2013-07-19 2014-12-30 2015-09-19
Question related to:		EN/prEN: EN 812:2012	Other:
Annex:	Article:	Clause: 5.8	
Key words: Marking			
roy notes marting			
Question:			
In clause 7.2.3 d), is the re	ference to clause 7.1 correct?		
Solution:			
No, reference should be to	clause 7.2.2. instead		
Rationale:			
	e significance of the markings under claus ropean Standard', and requiring the signific		
EN 397:2012 + A1:2012 cl must be explained.	ause 7.2.3 d) includes a very similar requi	rement, but instead it is the optional mar	kings for which the significance
It has been interpreted tha	t the requirement in EN 812 was intended	to be of a similar to that in EN 397.	
Sent to: members of t	the VG other(s) VG HC (2)		ner (5)
_			(0)
(3): TC158 (5):			



CNB/P/01.030 Revision 01 Language: E

***	RECOMMENDATION FOR USE		
Number of pages: 1	Date: 2013-04-22	Approval by :	Approved on :
Origin: VG1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2013-07-19 2014-12-30 2015-09-19
Question related to:		EN/prEN: EN 12492:2012	Other:
Annex: 09-	Article:	Clause: 4.1.4	
Key words: Ventilation			
Question:			
	ct to include adjustable ventilation that inc	cludes settings that would reduce the area	a of ventilation to less than the
Solution:			
Yes. Ventilation features s	hall be adjusted to their maximum openin	ng when measurements are taken.	
Sent to: Members of the	he VG		er (5)
(3): TC158 (5):			



CNB/P/01.031 Revision 02 Language: E

				gg
RECOMMENDATION FOR USE				
Number of pages: 1	Date: 2013-04-22	Į.	Approval by :	Approved on :
Origin: VG1			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	30/12/2014
Question related to:		EN/prEN: E	N1384:2012	Other:
Annex:	Article:	Clause: 4.1		
Key words: Thickness me	asurement, Area of protection	И		
Question: For measurement of thick be made?	ness of protective padding in the are	a of protection but o	outside of the test area, wh	ere should this measurement
Solution:				
	be made 12mm up from the lower ende minimum thickness measured within		strated below (see also Fi	gure 1 of EN1384) and shall
	ZONE 2	ZONE 1	ZONE 3	AA' -~ RF₁F₂
Rationale:				
The test area equates to zone 1 of the illustration. The minimum thickness within this area should be measured to determine the minimum thickness to be used for comparison purposes.				
The minimum area of protection comprises zones 1 and 2 of the illustration.				
Zone 3 indicates a portion of the helmet that falls neither within the minimum area of protection nor the test area.				
·	must cover zones 1 and 2. Coverage		•	
=	m which edge of the area of protection			
	at it should be 12mm from the lower of compared to the minimum thickness in			ove. The minimum thickness
Sent to: Members of	the VG	HC (2) 🔀 TC (3)) SC (4)	ner (5)
(3): TC158 (5):				

- (1) Essential safety requirement(2) HC = horizontal committee



CNB/P/01.032 Revision 01 Language: E

	RECOMMENDA	RECOMMENDATION FOR COL	
Number of pages: 1	Date: 2013-04-22	Approval by :	Approved on :
Origin: VG1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2014-12-30
Question related to:		EN/prEN: EN 1384:2012	Other:
Annex:	Article:	Clause: 6.2	
Key words: Test sequence	e. sample restoration		
, ,	· '		
Question:			
Is it acceptable to restore	samples following reversible damage befor	re performing the next test in the test sec	quence?
Solution:			
No, samples should be tes	sted without restoration.		
Rationale:			
	ccur during testing which could influence thave a detrimental effect on penetration resi		ence, e.g. detachment of
Some standards specify a	sequence of testing just to minimise the ne	umber of samples required for a test pro	gramme.
	d in this case that the sequence of testing following each test before moving on to the		quantities, therefore samples
Sent to: members of	the VG other(s) VG HC (2)		ner (5)
_		∠3 10 (0)	
(3): TC158 (5):			



CNB/P/01.033 Revision 01 Language: E

Origin: VG1 Vertical Group				
Vertical Group	Number of pages: 1	Date: 2013-04-22	Approval by :	Approved on :
Annex: Article: Clause: 5.2.2 Key words: Resistance to penetration, helmet test support Question: Is the sample tested on a headform, as suggested by clause 5.2.2? Solution: No, the sample is tested on the test block specified by EN 13087-3. Rationale: It has been interpreted that reference to a headform was an editorial error.	Origin: VG1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2013-07-19 2014-12-30 2015-09-19
Annex: Article: Clause: 5.2.2 Key words: Resistance to penetration, helmet test support Question: Is the sample tested on a headform, as suggested by clause 5.2.2? Solution: No, the sample is tested on the test block specified by EN 13087-3. Rationale: It has been interpreted that reference to a headform was an editorial error.	Question related to:		EN/prEN: EN 14052:2012 + A1:2012	Other:
Question: Is the sample tested on a headform, as suggested by clause 5.2.2? Solution: No, the sample is tested on the test block specified by EN 13087-3. Rationale: It has been interpreted that reference to a headform was an editorial error.	Annex:	Article:		
Is the sample tested on a headform, as suggested by clause 5.2.2? Solution: No, the sample is tested on the test block specified by EN 13087-3. Rationale: It has been interpreted that reference to a headform was an editorial error. Sent to: members of the VG other(s) VG HC (2) TC (3) SC (4) other (5)	Key words: Resistance to	penetration, helmet test support		
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No, the sample is tested on the test block specified by EN 13087-3. Rationale: It has been interpreted that reference to a headform was an editorial error. Sent to: members of the VG other(s) VG HC (2) TC (3) SC (4) other (5)	Is the sample tested on a l	headform, as suggested by clause 5.2.2?		
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Rationale: It has been interpreted that reference to a headform was an editorial error. Sent to: members of the VG other(s) VG HC (2) TC (3) SC (4) other (5)				
It has been interpreted that reference to a headform was an editorial error. Sent to: members of the VG other(s) VG HC (2) TC (3) SC (4) other (5)	No, the sample is tested o	n the test block specified by EN 13087-3.		
It has been interpreted that reference to a headform was an editorial error. Sent to: members of the VG other(s) VG HC (2) TC (3) SC (4) other (5)	Pationalo:			
Sent to: ☑ members of the VG □ other(s) VG ☑ HC (2) ☑ TC (3) ☑ SC (4) □ other (5)		t reference to a headform was an editorial	error	
	Triad boom interpreted the	troioronos to a ricadiorini was an oditorial	onor.	
(3): TC158 (5):	Sent to: members of	the VG other(s) VG HC (2)	□ TC (3) □ SC (4) □ otl □ otl □ TC (3) □ Otl □ TC (4) □	ner (5)
	(3): TC158 (5):			



CNB/P/01.035 Revision 01 Language: E

Which headform sizes are appropriate Solution: For a given manufacturer's claimed he	e for claimed helmet sizes? ead size or head size range for Headform size designation 445 455 465 475	Helm	Horizontal Committee Standing Committee rious eral headforms should be so net size (mm) 560 560/570 570	
Annex: Article Key words: Test headforms, Helmet six Question: Which headform sizes are appropriate Solution: For a given manufacturer's claimed he Helmet size (mm) 450 460 470 480 490 500 510 520	e for claimed helmet sizes? ead size or head size range for Headform size designation 445 455 465 475	Clause: General Clause: Helm	headforms should be somet size (mm) 560 560/570 570	selected as follows: Headform size designation 555 565 575
Rey words: Test headforms, Helmet six Question: Which headform sizes are appropriate Solution: For a given manufacturer's claimed he Helmet size (mm) 450 460 470 480 490 500 510 520	e for claimed helmet sizes? ead size or head size range for Headform size designation 445 455 465 475	a helmet, test	headforms should be s net size (mm) 560 560/570 570	Headform size designation 555 565 575
Question: Which headform sizes are appropriate Solution: For a given manufacturer's claimed he Helmet size (mm) 450 460 470 480 490 500 510 520	e for claimed helmet sizes? ead size or head size range for Headform size designation 445 455 465 475	Helm	net size (mm) 560 560/570 570	Headform size designation 555 565 575
450 460 470 480 490 500 510 520	ead size or head size range for Headform size designation 445 455 465 475	Helm	net size (mm) 560 560/570 570	Headform size designation 555 565 575
Solution: For a given manufacturer's claimed he Helmet size (mm) 450 460 470 480 490 500 510 520	ead size or head size range for Headform size designation 445 455 465 475	Helm	net size (mm) 560 560/570 570	Headform size designation 555 565 575
Helmet size (mm) 450 460 470 480 490 500 510 520	Headform size designation 445 455 465 475	Helm	net size (mm) 560 560/570 570	Headform size designation 555 565 575
Helmet size (mm) 450 460 470 480 490 500 510	Headform size designation 445 455 465 475	Helm	net size (mm) 560 560/570 570	Headform size designation 555 565 575
450 460 470 480 490 500 510 520	445 455 465 475		560 560/570 570	555 565 575
460 470 480 490 500 510 520	455 465 475		560/570 570	565 575
470 480 490 500 510 520	465 475		570	575
480 490 500 510 520	475		+	
490 500 510 520				:00:0
500 510 520			580 590	595
510 520	485 495		600	605
520	505		610	615
	515		620	625
330	525		630	635
540	535		640	645
550	545		040	040
Headform sizes stated by manufacture a laboratory to choose a headform of sheadform still to be considered an apport of the choices of headforms available for Sent to:	size designation one either sid propriate headform for the state	e of any stated ed size range o performance s	size or size range by t of the helmet under test standard used for asses	the manufacturer, and such a t.
(3): (5):	other(s) VG 🔀 HC (2)			



CNB/P/01.036 Revision 01 Language: E

Number of pages: 1	Date: 2014-06-03	Approval by :	Approved on :
Origin: VG1		✓ Vertical Group✓ Horizontal Commit✓ Standing Commit	2014-07-18 littee2014-12-30 tee2015-09-19
Question related to:		EN/prEN: EN 13484:2012	Other:
Annex:	Article:	Clause: Figure 2	
Key words: Extent of cove	rage	L	
Question:			
Is the dimension of 25,5m	m between points D & E correct?		
- · · ·			
Solution:	orror		
No, the drawing includes a	an enor.		
The 25,5mm dimension sh	nould be drawn between the vertical transv	erse plane and point E.	
Rationale:			
EN 13484:2012 figure 2 pl	aces point E at 25.5mm behind point D, bu	ut also behind the vertical transvers	e plane.
This is in contradiction, be	cause 25,5mm behind point D would be in	front of the vertical transverse plan	e.
EN 1077:2007 figure 1 is v	very similar and shows point E positioned 2	25,5 mm behind the vertical transve	rse plane.
Sent to: members of	the VG	□ TC (3) □ SC (4) □	other (5)
(3): (5):			
• • • • • • • • • • • • • • • • • • • •			



CNB/P/01.037 Revision 01 Language: E

* * *	RECOMMENDATION FOR USE		
Number of pages: 1	Date: 2014-06-11	Approval by :	Approved on :
Origin: VG1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	
Question related to:		EN/prEN: EN 1385:2012	Other:
Annex:	Article:	Clause: Clause 5.2 & Figure 1	~
Key words: Coverage			
Question:			
Should point C be the mid	l-point of A-Z when measured over the sur	face of the headform, or when projected f	rom the side?
Solution:			
	-point of A-Z when measured over the sur		
Sent to: members of	the VG		er (5)
(3): (5):			



CNB/P/01.038 Revision 01 Language: E

^ * ^	RECOMMENDATION FOR COL				
Number of pages: 1	Date: 2014-06-11	Approval by :	Approved on :		
Origin: VG1		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee			
Question related to:		EN/prEN: EN 1385:2012	Other:		
Annex:	Article:	Clause: Clause 7.8 & Figure 4	U		
Key words: Retention system effectiveness					
,					
Question:					
In figure 4, where should the	he 600mm vertical dimension be measured	d from?			
Solution:					
	asured upwards from the reference plane.				
	·				
Rationale:					
With reference to EN 1078	3:2012 figure 5, an AA line was marked to s	show a section in the drawing.			
	erroneously in figure 4 of EN 1385, as no sertical dimension to extend upwards from the		other standards that include this		
Sent to: members of	the VG	□ TC (3) □ SC (4) □ c	other (5)		
(3): (5):					
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \					



CNB/P/01.039 Revision 01 Language: E

^ * ^	RECOMMENDATION FOR COL				
Number of pages: 1	Date: 2014-06-11	Approval by :	Approved on :		
Origin: VG1 2014 annual meeting		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2014-07-18 2014-12-30 2015-09-19		
Question related to:		EN/prEN: EN 397:2012	Other:		
Annex:	Article:	Clause: 7.1 f)			
Key words: Helmet shell, Materials, Marking					
Question:					
In the case of a helmet for abbreviation of the material	which the exterior comprises multiple com I shall be marked?	ponents of different materials, what is the	ne shell for which the		
Solution:					
The shell shall be considered predominant component sh	ed to be the predominant component of the lall be marked.	ne exterior of the helmet and an abbrevia	ation for the material of that		
Abbreviations for the mater component upon which it is	ials of other components may also be ma marked.	rked, however, the abbreviation used m	ust match the material of the		
Sent to: members of the	ne VG		ner (5)		
(3): (5):					

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 2 "Respiratory Protective Equipment" of the European Coordination of Notified Bodies in the field of PPE

No.	Version	Reference	Key words	Approved by Vertical Group 2	Approved by Horizontal Committee	Approved by PPE Expert Group
02.003	01		Variations - Conformity	18/05/2011	12/09/2011	15/05/2012
02.005	04	EN 14594 - EN 14593	Airlines; mobile high pressure air supply system; CE marking	01/12/2012	15/02/2013	12/03/2013
02.015	03		Test panel, total inward leakage testing (TIL), inward leakage testing (IL)	12/04/2012	12/12/2012	12/03/2013
02.017	01		Reduced test panel; inward leakage	18/05/2011	12/09/2011	15/05/2012
02.018	04	EN 149:2001	Modified PPE	18/04/2013	12/03/2015	01/10/2015
02.025	01	EN 136	Full face mask, flammability, head harness	18/05/2011	12/09/2011	15/05/2012
02.027	03	EN 136,Clause : Requirements § 7.6 testing § 8.5 & 8.13	Full face mask, flammability, head harness	12/04/2012	12/12/2012	12/03/2013
02.032	01	EN 14594 / ISO 14877, Clause: 7.21 Blasting pressure	Respiratory protective equipments, equipment for blasting, test method	18/05/2011	12/09/2011	15/05/2012
02.036	01	EN 250	Respiratory protective equipments, open-circuit self-contained compressed air diving apparatus (SCUBA), PPE components	18/05/2011	12/09/2011	15/05/2012
02.038	03	All	Respiratory protective equipments, EC Type examination, validity of type examination certificates	12/04/2012	12/12/2012	12/03/2013
02.043	01	EN 137:2006	Respiratory protective equipments, flame engulfment test, bulky devices	18/05/2011	12/09/2011	15/05/2012
02.044	01	EN 13794: 2002, EN 13274-2:2001	Respiratory protective equipments, practical performance tests	18/05/2011	12/09/2011	15/05/2012
02.046	03	EN 13794:2002	Self-contained closed-circuit breathing apparatus for escape (SCCBA); Carbon- dioxide (CO ₂) content	12/04/2012	12/12/2012	12/03/2013
02.047	03	EN 12941 :1998	Powered helmet / hood, filter connection	12/04/2012	12/12/2012	12/03/2013
02.048	01	RPDs EN standards	Equipment standard, test standard	18/05/2011	12/09/2011	15/05/2012
02.049	01		Children, EN testing, CE certification	18/05/2011	12/09/2011	15/05/2012
02.050	03	EN 140:1998, Clause: 9.3 and 8.2.6	Marking; shelf-life; lifetime; half-masks; quarter-masks; pictogram	12/04/2012	12/12/2012	12/03/2013
02.051	01	EN 140:1998, Clause: 6.12.1	Valves, replacement	12/04/2012	12/12/2012	12/03/2013
02.053	02	EN 14594:2005; EN 13274:2001	Abrasive blasting, protective clothing, blasting hood	12/04/2012	12/03/2015	01/10/2015
02.054	02	All	Total Inward Leakage, talking passage	01/12/2012	15/02/2013	12/03/2013

Status: November 2015

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 2 "Respiratory Protective Equipment" of the European Coordination of Notified Bodies in the field of PPE

No.	Version	Reference	Key words	Approved by Vertical Group 2	Approved by Horizontal Committee	Approved by PPE Expert Group
02.055	02	EN 14387:2004 (A1:2008)	Marking, filter packaging	12/04/2012	12/03/2015	01/10/2015
02.056	02	EN 14594:2005; EN 14593:2005	Airlines, temperature conditioning, samples	13/04/2012	12/03/2015	01/10/2015
02.057	02	EN 14594:2005; EN 13274-3:2001	Breathing resistance, Exhalation resistance, continuous flow compressed air line breathing apparatus	12/04/2012	12/03/2015	01/10/2015
02.058	01	-	Reporting, test results	10/04/2014	12/03/2015	01/10/2015
02.059	01	EN 137:2006	Resistance to temperature	10/04/2014	12/03/2015	01/10/2015
02.060	01	EN 137:2006	Temperature performance	10/04/2014	12/03/2015	01/10/2015
02.061	01	EN 149:2001+A1: 2009; EN 1827:1999+ A1:2009	Choice of standard	10/04/2014	12/03/2015	01/10/2015

Note: Recommendation for Use sheets which deal with withdrawn and / or superseded standards and which no longer apply to new certifications are published as reference for previous files.

Status: November 2015

2



CNB/P/02.003 Revision 01 Language: E

* * *	RECOMMENDATION FOR USE		
Number of pages: 1	Date: 2011-05-18	Approval by :	Approved on :
Origin : Vertical Group 2		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2011-05-18 2011-09-12 2012-05-15
Question related to:		EN/prEN:	Other:
Annex:	Article:	Clause:	
Key words: variations, co	nformity		
Question:			
•	riations of essentially the same equipm		
<u> </u>	eries of different facepieces / hoods and	d filters.	
How many tests should be	e performed?		
Solution:			
Perform as many tests as verify the conformity of the		elements in the different versions of the eq	uipment also perform tests to
Comment:			
This suggestion was mad testhouses.	le that Notified Bodies should make the	eir own decisions to establish the same tes	ting procedures for all
Sent to: members o	f the VG	C (2) TC (3) SC (4)	other (5)
(5)			



CNB/P/02.005 Revision 04 Language: E

* * *	RECOMMENDATION FOR USE				
Number of pages: 1	Date: 2012-04-11	Approval by :	Approved on :		
Origin : Vertical Group 2		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2012-12-01 2013-02-15 2013-03-12		
Question related to: Direct	tive 89/686/EEC	EN/prEN: EN 14594 - EN 14593	Other:		
Annex:	Article:	Clause:	u		
Key words: airlines; mobile high pressure air supply system; CE marking					
Question:					
	plies a mobile high pressure air supply sy e used with compressed airline breathing a				
Solution:					
Solution: The standards EN 14594:2005, EN 14593-1:2005 and EN 14593-2:2005 provide for requirements and test methods for mobile high pressure air supply systems intended to be used with compressed airline breathing apparatus. Mobile high pressure air supply systems are a part of the PPE and they shall carry the CE marking in compliance with Directive 89/686/EEC (other Directives may apply). The filter unit is considered to be a spare part of a complete mobile high pressure air supply system, by consequence the filter unit shall not bear a CE marking in compliance with Directive 89/686/EEC (other Directives may apply).					
Sent to: members of	the VG	☐ TC (3) ☐ SC (4) ☐ oth	er (5)		
(5)					



CNB/P/02.015 Revision 03 Language: E

* * *	RECOMMENDATION FOR USE		
Number of pages: 1	Date: 2012-04-12	Approval by :	Approved on :
Origin : Vertical Group 2		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2012-04-12 2012-12-12 2013-03-12
Question related to:		EN/prEN:	Other:
Annex:	Article:	Clause:	u
Key words:			
test panel, total inward leak	tage testing (TIL), inward leakage testing	(IL)	
Question:			
For (total) inward leakage to	esting the EN standards of RPD typically	require a test panel of 10 persons.	
If the RPD is submitted in s	several sizes, should a test house select the	ne test panel to ensure that all sizes have	been tested?
Solution:			
In the case of an RPD being are tested for inward leakage	g submitted for type examination in more ge.	than one size then the test panel should	be arranged so that all sizes
Sufficient specimens shall be	pe provided to enable a total of 10 IL / TIL	tests to be performed.	
It may not be possible to te	st all sizes of RPD.		
Sent to: Members of the	he VG	☐ TC (3) ☐ SC (4) ☐ oth	er (5)
(5)			



CNB/P/02.017 Revision 01 Language: E

***	RECOMMENDATION FOR USE		
Number of pages: 1	Date: 2011-05-18	Approval by :	Approved on :
Origin : Vertical Group 2		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2011-05-18 2011-09-12 2012-05-15
Question related to:		EN/prEN:	Other:
Annex:	Article:	Clause:	
Key words:			
reduced test panel; inward	d leakage		
Question:			
Can a reduced test panel	for inward leakage be used to assess com	pliance for modified respiratory protective	equipment (RPE)?
Suggestion: The inward le	eakage test is not in case of every change a	an appropriate test.	
0.1."			
Solution:			
A reduced inward leakage from the statistical basis for	e test panel (fewer test subjects than specif or the requirements of the standard.	ed in the relevant standard) shall not be	used in order not to deviate
Sent to: Members of	the VG other(s) VG HC (2)	☐ TC (3) ☐ SC (4) ☐ oth	er (5)
(5)			



CNB/P/02.018
Revision 04
Language: E

***	RECOMMENDATION FOR USE			
Number of pages: 1	Date: 2015-01-28	Approval by :	Approved on :	
Origin : Vertical Group 2		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2013-04-18 2015-03-12 2015-10-01	
Question related to:		EN/prEN: 149:2001	Other:	
Annex:	Article:	Clause:	u	
Key words: Modified PPE				
	ering facepiece (EN 149) is modified by adding be used to assess compliance of the mo		panel (fewer tests subjects) for	
Solution: No, it is not possible to reduce the number of tests because the additional exhalation valve has a noticeable influence on the expected performance. Where an exhalation valve is added to a certified filtering half mask (EN 149) the product is considered as a new model.				
Sent to: members of	the VG	☐ TC (3) ☐ SC (4) ☐ oth	er (5)	
(5)				



CNB/P/02.025 Revision 01 Language: E

* * *	RECOMMENDATION FOR USE				
Number of pages: 1	Date: 2011-05-18	Approval by :	Approved on :		
Origin : Vertical Group 2		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2011-05-18 2011-09-12 2012-05-15		
Question related to:		EN/prEN: EN136	Other:		
Annex:	Article:	Clause:	u		
Key words:					
Full face mask, flammabil	ity, head harness				
Question: 1. Shall the head harness of a full face mask be included in the components under test? 2. If a head harness is tested and does not fail the flammability test, but is damaged so that a post-flammability leaktightness test cannot be satisfied, shall this be considered unsatisfactory, or can the damage be compensated for by modification or assistance to the tested sample?					
Solution:					
Solution: 1. All parts of the face mask, including the head harness, shall be exposed to the flame. The exposure of the components shall be such that they are tested under "worst-case" conditions. (Discuss: see RFU 02.027, probably contradiction) 2. The post-flammability leaktightness requirement shall be satisfied without modification or assistance to the device tested.					
Sent to: Members of	the VG	☐ TC (3) ☐ SC (4) ☐ oth	er (5)		
			□ (J)		
(5)					



CNB/P/02.027 Revision 03 Language: E

Number of pages: 1 Date: 2012-04-12 Approval by : Approved on : Origin: Vertical Group 2 Vertical Group 2012-04-12 Horizontal Committee 2012-12-12 Standing Committee 2013-03-12 Question related to: Annex: Article: EN/prEN: EN136 Other: Clause: Requirements § 7.6 testing § 8.5 & 8.13 Key words: Full face mask, flammability, head harness Question: Taking consideration the SC3/ N325 document Q1 Shall the head harness be targeted directly? Q2 How shall the mask be oriented when testing? Q3 Shall burning of the head harness for more than 5s be a failure? Q4 May the mask be removed from the head form between the flammability test and the leak tightness test? Q5 If a product satisfies the post-flammability leak tightness test, even with mechanical damage (which may include breakage) to the
Vertical Group 2012-04-12 Horizontal Committee 2012-12-12 Standing Committee 2013-03-12 Question related to:
Annex: Article: Clause: Requirements § 7.6 testing § 8.5 & 8.13 Key words: Full face mask, flammability, head harness Question: Taking consideration the SC3/ N325 document Q1 Shall the head harness be targeted directly? Q2 How shall the mask be oriented when testing? Q3 Shall burning of the head harness for more than 5s be a failure? Q4 May the mask be removed from the head form between the flammability test and the leak tightness test?
Key words: Full face mask, flammability, head harness Question: Taking consideration the SC3/ N325 document Q1 Shall the head harness be targeted directly? Q2 How shall the mask be oriented when testing? Q3 Shall burning of the head harness for more than 5s be a failure? Q4 May the mask be removed from the head form between the flammability test and the leak tightness test?
Full face mask, flammability, head harness Question: Taking consideration the SC3/ N325 document Q1 Shall the head harness be targeted directly? Q2 How shall the mask be oriented when testing? Q3 Shall burning of the head harness for more than 5s be a failure? Q4 May the mask be removed from the head form between the flammability test and the leak tightness test?
Full face mask, flammability, head harness Question: Taking consideration the SC3/ N325 document Q1 Shall the head harness be targeted directly? Q2 How shall the mask be oriented when testing? Q3 Shall burning of the head harness for more than 5s be a failure? Q4 May the mask be removed from the head form between the flammability test and the leak tightness test?
Taking consideration the SC3/ N325 document Q1 Shall the head harness be targeted directly? Q2 How shall the mask be oriented when testing? Q3 Shall burning of the head harness for more than 5s be a failure? Q4 May the mask be removed from the head form between the flammability test and the leak tightness test?
Q1 Shall the head harness be targeted directly? Q2 How shall the mask be oriented when testing? Q3 Shall burning of the head harness for more than 5s be a failure? Q4 May the mask be removed from the head form between the flammability test and the leak tightness test?
Q2 How shall the mask be oriented when testing? Q3 Shall burning of the head harness for more than 5s be a failure? Q4 May the mask be removed from the head form between the flammability test and the leak tightness test?
Q3 Shall burning of the head harness for more than 5s be a failure? Q4 May the mask be removed from the head form between the flammability test and the leak tightness test?
Q4 May the mask be removed from the head form between the flammability test and the leak tightness test?
,
Q5 If a product satisfies the post-flammability leak tightness test, even with mechanical damage (which may include breakage) to the
head harness, is this a failure?
Solution:
A1 No.
A2 The laboratory shall decide on the appropriate orientations to ensure that all relevant components, with the exception of the head harness, are exposed directly. Three samples shall be tested, with a new orientation for each sample.
A3 Yes. If burning of the head harness for more than 5s results from indirect exposure, then this is a failure.
A4 Yes because this is the practice of the majority of the test houses.
A5 No.
Sent to: ⊠ members of the VG □ other(s) VG ⊠ HC (2) □ TC (3) ⊠ SC (4) □ other (5)



CNB/P/02.032 Revision 01 Language: E

	RECOMMENDATION FOR USE			
Number of pages: 1	Date: 2011-05-18		Approval by :	Approved on :
Origin : Vertical Group 2			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2011-05-18 2011-09-12 2012-05-15
Question related to:		EN14594 /	ISO 14877	Other:
Annex:	Article:	Clause: 7.2	1 Blasting pressure	1
	ments, equipment for blasting, test meth	od		
Question: How should the pressure be	adjusted for the blasting operation with	the checking	device in accordance with F	igure 2?
Solution: At point X of the checking de inserted. For adjusting the point Yube # 44 # 2	evice a small tube (ca. 4 mm diameter) was britished pressure to 4 bar no abrasive management of the state of	which is open terial is adde	against the direction of the b	plasting stream has to be
Sent to: Members of the	e VG		3) SC (4)	er (5)



CNB/P/02.036 Revision 01 Language: E

* * *	RECOMMENDAT				
Number of pages: 1	Date: 2011-05-18	Approval by :	Approved on :		
Origin : Vertical Group 2		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2011-05-18 2011-09-12 2012-05-15		
Question related to: PPE	Directive	EN: 250	Other:		
Annex:	Article: 1§2.c	Clause:	u		
Key words:					
Respiratory Protective equ	uipments, Open-circuit self-contained comp	ressed air diving apparatus (SCUBA), Pl	PE Components		
Question:					
	r, as a SCUBA sub-assembly consisting of rchangeable component of a PPE in the me				
Q2: Provided that, in most cases, a pressure reducer, a medium pressure hose or a demand valve of a diving regulator can be disassembled without using special tools and can apparently be replaced with other similar devices, can they be considered as interchangeable components of a PPE in the meaning of art. 1 §2.c of PPE Directive?					
Solution:					
A1: YES. A diving regulator can be mounted on a SCUBA and removed from it directly by the user with its hands. A diving regulator is specifically designed and manufactured to be interchanged with other similar products on a SCUBA. It will consequently bear one EC marking and it will be provided with its user's manual.					
	e reducer, a medium pressure hose or a de grally designed and manufactured to be dis		and without using any special		
In fact the calibration	of a diving regulator is performed at factory	level exclusively on the assembled device	ce.		
	a medium pressure hose or a demand valventhe manufacturer stating at least the follo		accompanied by an		
	at the product is a spare part of a specified ormation leaflet will give clear reference to t				
	nents of a diving regulator are designed to formed and the need for any subsequent re		er shall provide clear guidance		
Sent to: members of	the VG	☐ TC (3) ☐ SC (4) ☐ oth	er (5)		
(5)					



CNB/P/02.038 Revision 03 Language: E

* * *	RECOMMENDA'				
Number of pages: 1	Date: 2012-04-12	Approval by :	Approved on :		
Origin : Vertical Group 2		✓ Vertical Group✓ Horizontal Commit✓ Standing Committee			
Question related to:		EN/prEN: all	Other:		
Annex:	Article:	Clause:			
Key words:					
Respiratory Protective equ	uipments, EC Type examination, validity of	type examination certificates			
Question:					
If the presumption of conformity for respiratory protective equipment is withdrawn from a harmonized standard, because it is no longer considered to fully satisfy the basic health and safety requirements of Annex II of the PPE Directive, what procedure should be applied by Notified Bodies for existing certificates?					
Solution:					
Notified Bodies shall instru	uct the RPE-manufacturer(s) concerned to	update the certification otherwise th	e certificate shall be withdrawn.		
Transition period should be	e advised by the relevant EU Authority				
Sent to: Members of	the VG	☐ TC (3) ☐ SC (4) ☐	other (5)		
(5)					



CNB/P/02.043 Revision 01

				Language: E		
* * *	RECOMMENDATION FOR USE					
Number of pages: 1	Date: 2011-05-18		Approval by :	Approved on :		
Origin : Vertical Group 2			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2011-05-18 2011-09-12 2012-05-15		
Question related to:		EN 137:20	06	Other:		
Annex:	Article:	Clause:				
Key words: Respiratory Protective Equipm	nents, flame engulfment test, bulky dev	ices				
How should the test been carr	Question: EN 137:2006, method 7.4.1.3 figure 3 specifies the distance between the burner plates. How should the test been carried out for large devices, where the space between the burner plates and the nearest point of the device becomes smaller than 50 mm?					
Solution: Adjust the burner plate(s) position(s) so that the minimum distance between the nearest point of the device and the burner plate(s) becomes 50 mm. This shall be achieved without changing the manikin's position which shall remain in the centre of the original configuration of the burner plates.						
Sent to: members of the (5)	VG	☐ TC ((3) SC (4) other	er (5)		



CNB/P/02.044 Revision 01 Language: E

* * *	RECOMMENDA				
Number of pages: 1	Date: 2011-05-18	Approval by :	Approved on :		
Origin : Vertical Group 2		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2011-05-18 2011-09-12 2012-05-15		
Question related to:		EN 13794:2002 , EN 13274-2:2001	Other:		
Annex:	Article:	Clause:	"		
Key words: Respiratory Protective Equ	uipments, practical performance tests				
Question: EN 13794:2002 refers to w What are the correct refere	vrong activities in the test method standard	d EN 13274-2:2001.			
Solution:					
Replace in clause 7.16.2.2 of EN 13794:2002 the numbers 16, 20, 17, 18 by 7, 9, 13, 8. Replace in clause 7.16.2.3 of EN 13794:2002 the number 16 by 7. Replace in clause 7.16.3 of EN 13794:2002 the number 15 by 1.					
Sent to: members of t	the VG	□ TC (3) □ SC (4) □ oth	er (5)		
(5)					



CNB/P/02.046 Revision 03 Language: E

* * *	RECOMMENDATION FOR USE				
Number of pages: 1	Date: 2012-04-12		Approval by :	Approved on :	
Origin: Vertical Group 2			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2012-04-12 2012-12-12 2013-03-12	
Question related to:		EN 13794:	2002	Other:	
Annex:	Article:	Clause:			
Key words: Self-contained closed-circuit breathing apparatus for escape (SCCBA); Carbon-dioxide (CO ₂) content					
	I 13794, clause 6.19.3, "After the rate D percent by volume", apply for device				
Solution:					
Test as if a new paragraph would be inserted after the first sentence in clause 6.19.2, 2nd paragraph so that the wording "After the rated working duration and up to a breathing resistance of 35 mbar the CO ₂ content shall not exceed 3.0 percent by volume" clearly applies to all self-contained closed-circuit breathing apparatus for escape (SCCBA). Perform the tests in accordance with clause 7.10.1 of the standard.					
Explanatory statement :					
	clude a warning device which allows oxygen is a high inhalation resistance		notice that the rated duration i	s exceeded, the only	
manufactured as to preclude risl	II, clause 1.2 "Absence of risks and ss and other nuisance factors under	foreseeable	conditions of use".	-	
	as it supports breathing, regardless An exceedance of the 3 percent by				
Sent to: Members of the VC	G	☐ TC ((3) SC (4) oth	er (5)	
(5)					



CNB/P/02.047 Revision 03 Language: E

* * *	RECOMMENDA			
Number of pages: 1	Date: 2012-04-12	Approval by :	Approved on :	
Origin: VG2 Respiratory Pr	rotective equipment	✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2012-04-12 2012-12-12 2013-03-12	
Question related to:		EN 12941:1998	Other:	
Annex:	Article:	Clause:		
Key words: powered helme	t/hood, filter connection			
Question:				
and that the system is design	equires that a hood/helmet without integra gned in such a way that it shall not be pos also exclude a design where a connection	ssible to connect a filter directly to the hoo	od/helmet. Does the	
Solution:				
Solution: The breathing hose is considered as an extension of the hood/helmet and therefore the thread restrictions shall be applied also to the end of the breathing hose (see clause 6.3.1 in EN 12941:1998/A2:2008)				
Sent to: Members of the	ne VG	☐ TC (3) ☐ SC (4) ☐ oth	er (5)	
(5)				



CNB/P/02.048 Revision 01 Language: E

* * *	RECOMMENDA				
Number of pages: 1	Date: 2011-05-18	Approval by :	Approved on :		
Origin : Vertical Group 2		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2011-05-18 2011-09-12 2012-05-15		
Question related to:		EN/prEN: RPDs EN standards	Other:		
Annex:	Article:	Clause:			
Key words: equipment sta	ndard, test standard				
Question:					
When test methods differ between device and test standards, which one has to be used?					
Solution:					
Solution: The test method which is required by the device standard has to apply. If the test description in the device standard is misleading/imprecise/incomplete the test standard could give clarification.					
Sent to: Members of	the VG	☐ TC (3) ☐ SC (4) ☐ oth	ner (5)		
(5)					



CNB/P/02.049 Revision 01 Language: E

* * *	RECOMMENDATION FOR USE			
Number of pages: 1	Date: 2011-05-18		Approval by :	Approved on :
Origin : Vertical group 2			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2011-05-18 2011-09-12 2012-05-15
Question related to:		EN/prEN:		Other:
Annex:	Article:	Clause:		
Key words: Children, EN testing, CE of	certification			
Question:				
How to deal with CE certif	fication request for Respiratory Protective D	Devices spec	sially designed for children? (i	.e. based on EN 149)
Solution:				
The PPE directive does n	ot exclude PPE for children.			
	PD standards were not written with conside sible according to just the directive.	eration of the	requirements of children.	
A request for standardisat	tion activities shall be submitted to CEN/TC	79.		
Sent to: Members of	the VG	⊠ TC(3) SC (4)	er (5)
(5)				



CNB/P/02.050 Revision 03 Language: E

* * *	RECOMMENDA				
Number of pages: 1	Date: 2012-04-12	Approval by :	Approved on :		
Origin : Vertical Group 2		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2012-04-12 2012-12-12 2013-03-12		
Question related to:		Harmonised Standard EN 140:1998	Other:		
Annex:	Article:	Clause: 9.3 and 8.2.6	Ч		
Key words: Marking; shelf-life; lifetime; half-masks; quarter-masks; pictogram;					
Clause 9.3 requires that the instructions for use shall include the shelf-life or equivalent of the PPE. In clause 8.2.6 a sample of an appropriate pictogram for marking the shelf-life on the package of the PPE is given.					
Question: How should PPE be mark	ed on the package where the manufacture	r does not define a finite shelf-life?			
Solution: Where the manufacturer claims an infinite shelf-life for the PPE under clause 9.3 no pictogram concerning the shelf life should occur on the package.					
Sent to: Members of	the VG	☐ TC (3) ☐ SC (4) ☐ oth	er (5)		
(5)					



CNB/P/02.051 Revision 01 Language: E

* * *	RECOMMENDATION FOR USE			
Number of pages: 1	2012-04-12		Approval by :	Approved on :
Origin :			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2012-04-12 2012-12-12 2013-03-12
Question related to:		EN/prEN:	EN140:1998	Other:
Annex:	Article:	Clause:	 6.12.1	
Key words: Valves, replacement				
Question: Must valve assemblie	s be able to be replaced as require	ed by claus	se 6.12.1?	
(The wording of claus exhalation valves.)	es 6.9 and 6.12.1 seem incompatik	ble in the c	ase of integral compone	ents of inhalation and
Solution:				
No. If any components of valve assemblies are not intended by the manufacturer to be replaced, that is acceptable.				
Reason: EN 136: 1998 has corresponding requirements in clause 7.10 and clause 7.15.1, but includes additional words in clause 7.15.1 when compared to EN140:1998 clause 6.12.1 which make the requirements compatible. This additional wording is underlined below: "Valve assemblies shall be such that they can be readily maintained and <u>if intended by the manufacturer</u> correctly replaced."				
EN140:1998 clause 6.12.1 should be read as if including the additional words.				
Sent to: ☐ members (5)	s of the VG		☐ TC (3) 🛮 S	C (4)
(~)				



CNB/P/02.053
Revision 02
Language: E

* * *	REGOMMENDATION FOR GGE		
Number of pages: 1	2015-01-28	Approval by :	Approved on :
Origin : VG2 Respiratory	Protective equipment	✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2012-04-12 2015-03-12 2015-10-01
Question related to:		EN/prEN: 14594:2005; 13274-3:2001	Other:
Annex:	Article:	Clause: 7.17.3	
Key words: Abrasive blasting, protect	ive clothing, blasting hood		
Question: The description of the tes be used for the abrasive to What mass of blasting ma	G	should be set but does not mention how i	much blasting material should
Solution: The amount of blasting m blasting material the test.	aterial for the test period of two minutes sh	ould be 6 kg to 8 kg. Care should be take	n to have a continuous flow of
Sent to: Members of	the VG	TC (3)	ner (5)
(5)			



CNB/P/02.054 Revision 02 Language: E

	RECOMMENDATION FOR USE		
Number of pages: 1	Date: 2012-04-11	Approval by :	Approved on :
Origin : VG2		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2012-12-01 2013-02-15 2013-03-12
Question related to:		EN/prEN: all	Other:
Annex:	Article:	Clause:	U
Key words: Total Inward Leakage	, talking passage		
Question: How should the test s	ubject speak during TIL?		
Solution:			
•	ld be instructed as follows: ercise, you should speak clearly ar	nd at a volume so that an adjace	ant colleggue would be
able to hear your word		id at a volume so that an adjace	ent colleague would be
You should not introdu	uce prolonged pauses into the spe	aking, except when breathing.	
The exercise will requ			
Whilst your breathing may follow punctuation of text, you are free to breathe more frequently. It is not intended that you should be over-exerted and struggling to breathe during the exercise."			
Sent to: ⊠ members	s of the VG		SC (4)
(5)			



CNB/P/02.055 Revision 02 Language: E

Number of pages: 1	Date: 2012-04-12		Approval by :	Approved on :
Origin: VG2 Respiratory Prot	ective Equipment		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2012-04-12 2015-03-12 2015-10-01
Question related to:		EN/prEN	: EN14387:2004 (A1:2008)	Other:
Annex:	Article:	Clause:	8.3	
Key words: Marking, filter packaging		11		
	package shall be marked at least with ckage should the markings be given?		g information:"	
_	to the smallest commercially availabl commercially available package is no		most immediate packaging.	
Reason: Other standards that include sin packaging.	milar requirements, e.g. EN 143:2000	clause 9.4,	refer to marking of the smalle	st commercially available
Sent to: Members of	the VG			C (4)
(5)				



CNB/P/02.056
Revision 02
Language: E

Number of pages: 1	Date: 2015-01-28		RECOMMENDATION FOR USE	
Number of pages. 1			Approval by :	Approved on :
Origin : VG2 Respiratory protectiv	e equipment		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2012-04-13 2015-03-12 2015-10-01
Question related to:		EN/prEN: E	EN 14594:2005 - EN 14593:2	Other:
Annex: A	rticle:	Clause:		
Key words: airlines; temperature of	conditioning; samples			
6.1, table 1), EN 14593-2:2005 conditioning and will be used for the remaining tests. The inward leakage test (EN 145 which as received and the other with the rest of the standards. Which test conditions may be app	elated table in the testing section (§6.1, table 1) specifies that fou he flammability test only, while the 194:2005 § 7.14.2.3.1, EN 14593-1 one after the thermal conditioning.	other two w	will be used, two of which vill undergo the thermal condi	will not undergo the thermal tioning and will be used for all requires two samples, one of
Solution: EN 14594:2005 (§ 7.1, table 1), EN 14593-1:2005 (§ 6.1, table 1), EN 14593-2:2005 (§6.1, table 1).				
Sent to: Members of the VG	other(s) VG 🔀 HC (2)	⊠ TC (3) SC (4) other	er (5)
(5)				



CNB/P/02.057
Revision 02
Language: E

RECOMMEND	RECOMMENDATION FOR USE		
Number of pages: 1 2015-01-28	Approval by	: Approved on :	
Origin : VG2 Respiratory Protective equipment		Group 2012-04-12 tal Committee 2015-03-12 g Committee 2015-10-01	
Question related to:	EN/prEN: 14594:2005; 1	13274-3:2001 Other:	
Annex: Article:	Clause: 7.17.3		
Key words: Breathing resistance, Exhalation resistance, Continuous flow com	pressed air line breathing ap	pparatus	
Question: Which could be the reasons to measure the inhalation resistance of a continuous flow compressed air line breathing apparatus according to EN 13274-3, Method 2: setting E [(25×2) l/min] and the exhalation resistance according to EN 13274-3, Method 2: setting H [(40×2.5) l/min]? In EN 139 which is superseded by EN 14594 both, the inhalation and the exhalation resistance were measured at a setting of (25×2) l/min. The test device used in the measurement of breathing resistance (figure 7 in EN 14594) is designed for a sinusoidal flow of (25×2) l/min.			
Solution: A: No reasons evident; Both, inhalation and exhalation resistance should be measured a Method 2: setting E [(25 x 2) I/min]	ecording to EN 13274-3,		
Sent to: ☐ members of the VG ☐ other(s) VG ☐ HC	2) 🛛 TC (3) 🖾 SC	C (4)	
(5)	• •		



CNB/P/02.058
Revision 01
Language: E

* * *				
Number of pages: 1	Date: 2014-04-10	Ap	oproval by :	Approved on :
Origin: VG2			Vertical Group Horizontal Committee Standing Committee	
Question related to:		EN/prEN:		Other:
Annex:	Article:	Clause:		
Key words: Reporting, Test resu	ults			
Question: Is it necessary to report measur	ement values in addition to reporting	the assessmer	nt for each clause?	
Solution: Yes.				
The values used to determine the	ne assessment should be reported.			
Sent to: members of the Vo	G	TC (3)	SC (4) oth	ner (5)
(3): (5):				· /
(-).				



CNB/P/02.059
Revision 01
Language: E

* * *			
Number of pages: 1	Date: 2014-04-10	Approval by :	Approved on :
Origin: VG2		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2014-04-10 2015-03-12 2015-10-01
Question related to:		EN/prEN: EN 137 : 2006	Other:
Annex: Art	icle:	Clause: 7.4.1.1 & 7.4.1.2	u
Key words: Resistance to temperat	ure		
Question: In the case of apparatus incorporati apparatus, or just to the cylinder(s)*		vessels, does the storage time of 12 hou	rs apply to the whole
Solution: The storage time applies to the who	ole apparatus.		
Sent to: members of the VG	☐ other(s) VG ☐ HC (2)	☐ TC (3) ☐ SC (4) ☐ oth	er (5)
(3): (5):			



CNB/P/02.060
Revision 01
Language: E

$\star\star\star$					
Number of pages: 1	es: 1 Date: 2014-04-10		Approval by : Approved on :		
Origin: VG2			□ Vertical Group □ Horizontal Committee □ Standing Committee	2014-04-10 2015-03-12 2015-10-01	
Question related to:		EN/prEN: E	EN 137 : 2006	Other:	
Annex:	Article:	Clause: 6.1			
Key words: Temperature perform	nance				
Question: If the apparatus conforms to the malfunctioned and therefore not	requirements for breathing resistand to have operated 'trouble-free'?	ce, can other	defects result in the apparatu	us being considered to have	
Solution: Yes.					
	uring the test at pressures above the d and therefore not to have operated			apparatus should be	
If leaks are detectable (even by he 'trouble-free'.	nand), the apparatus should be cons	sidered to hav	ve malfunctioned and therefo	re not to have operated	
This is not intended as an exhaustive list as other malfunctions may be observed that are symptomatic of the apparatus not operating 'trouble-free'.					
Contitor M mambage of the VC □ other(a) VC ■ TO (2) ■ TO (2) ■ CO (4) □ other(5)					
Sent to: members of the VG	other(s) VG 🔀 HC (2)	☐ TC (3	S) SC (4) othe	er (5)	
(3): (5):					



CNB/P/02.061				
Revision 01				
Language: E				

* * *	RECOMMENDA				
Number of pages: 1	Date: 2014-04-10	Approval by :	Approved on :		
Origin: VG2		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2014-04-10 2015-03-12 2015-10-01		
Question related to:		EN/prEN: EN 149:2001 + A1:2009 and EN1827:1999 + A1:2009	Other:		
Annex:	Article:	Clause:			
Key words: Choice of star	ndard				
Question: Are there situations in whi	ich both EN149 or EN1827 could be consid	dered an appropriate choice of standard?			
Solution:					
	the scope and description of EN149 and E dered appropriate:	N1827, in the circumstance that all of the	following apply, both		
The mask consists substantially, but not entirely, of filter material The mask does not include inhalation valves. The mask includes a re-usable frame/grid to hold the filter The harness is attached to the re-usable frame/grid The filter protects against particles only The filters are separable from the re-usable frame/grid The filters are replaceable The filters are designed for a maximum of single shift use. It should be noted that the filter may or may not form the primary seal against the face and exhalation valve(s) may or may not be included. Whichever standard is chosen, the product shall satisfy all of the relevant requirements of the chosen standard.					
Sent to: ⊠ members of (3): (5):	the VG	☐ TC (3) ☑ SC (4) ☐ oth	er (5)		

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 3 "Eye and Face Protection" of the European Coordination of Notified Bodies in the field of PPE

Number of RfU	Revision	Reference	Keywords	Approved by Vertical Group 3	Approved by Horizontal Committee	Approved by PPE Expert Group
03-002	03	EN 166, Clause: 7.1.4 and 7.2.2	Minimum robustness, increased robustness, high speed particle impact	01/04/2004	15/06/2011	15/05/2012
03.003	03	EN 167, Clause: 6	Transmittance, uncertainty	20/06/1994		15/12/2005
03.004	03	EN 170, table 1	Transmittance, band width, scanning speed	20/06/1994		15/12/2005
03-009	03	EN 166, Clause: 7.2.6	Damage by fine particles, sand, reference lenses	30/11/2006	15/06/2011	15/05/2012
03-010	03	EN 166, 167, 168, Clause: all	Paint ball	30/11/2006	15/06/2011	15/05/2012
03.011	02	EN 175	Samples, welding protection	15/04/1996		15/12/2005
03.012	02	EN 166, EN 168 article 13	Large dust particles	08/10/2002		15/12/2005
03.013	03	EN 167, Clause 3.2.2	Refractive power, laser, achromatic lens	20/06/1994		15/12/2005
03-016	02	EN 166	Electric risk	30/11/2006	15/06/2011	15/05/2012
03-018	02	EN 166 - EN 1836, Clause: EN 166 § 7.3.3 and EN 1836- A2 § 4.1.4	Reflectance	30/11/2006	15/06/2011	15/05/2012
03-019	02	89/686/ECC, Article 1 & 2	Clip on lenses, component	30/11/2006	15/06/2011	15/05/2012
03-020	02	EN 166: 2001, Clause: 7.3.4	Protection against high speed particle at extremes of temperature	30/11/2006	15/06/2011	15/05/2012
03-021	03	EN 175: 1997, Clause: 5.5	Resistance of welder's shield to damage when dropped	24/11/2010	15/06/2011	15/05/2012
03-022	02	EN 166: 2001, Clause: 7.3.1, 7.3.2	Resistance to surface damage by fine particles – Resistance to fogging - Marking	24/11/2010	15/06/2011	15/05/2012
03-023	01	EN 207	Laser Protection filters made of glass; scale number	24/11/2010	15/06/2011	15/05/2012
03-024	05	EN 166, Clause: 7.2.7	Eye and face protection against electrical arc; additional requirements	24/02/2012	11/10/2012	12/03/2013
03-025	03	PPE-Directive 89/686/EEC, Annex II, Article 2.12	Eye- and face protection against thermal effects by electric arc; Marking	24/02/2012	11/10/2012	12/03/2013

Note: Recommendation for Use sheets which deal with withdrawn and / or superseded standards and which no longer apply to new certifications are published as reference for previous files.

Status: March 2013

1



CNB/P/03.002
Revision 03
Language F

Number of pages : 1	Date : 01/03/2004		Approval by :			Approved on :	
Origin: VG3 Eye and Face Protection		☑ Vertical Group					
			☑	Horizontal Committee .			
			$\overline{\mathbf{Q}}$	Standing Committee		15/05/2012	
Question related to :		EN/prEN : E	: EN 166 Other :				
Annex:	urticle :	Clause : 7.1	: 7.1.4 and 7.2.2				
Key words : Minimum robustness,	, increased robustness, high speed	particle impa	act				
Question: How to check that "no more than the ball"?	5 mg of the ocular material become	es detached f	rom	the surface away from t	the on	e in contact or struck by	
Solution:							
Solution: 1) Recovery of all detached lenses material for weighing seems impractical. 2) Calculate the material detached by difference of weight of the eye-protector is not adequate for determining mg. For both, it could also take into account material detached from another part of the eye protector, and declare the equipment no conform, even though no material is detached from the ocular. A practical solution is that no lens material should become detached from the surface away from the one in contact or struck by the ball and to access that by visual inspection.							
Sent for information to : \square me	embers of the VG other(s) VG	☑ HC (2)	☑ TC (3) ☑ SC (4	1)	□ other (5)	



CNB/P/03.003
Revision 03
Language : E

* * *	REGONNINENDATION FOR USE			
Number of pages : 1	Date : 21/04/2006	Approv	/al by :	Approved on :
		□ но	ertical Group orizontal Committee tanding Committee	
Question related to :		EN/prEN : EN 167	Oth	ner :
Annex :	Article:	Clause : 6		
Key words : transmittance	, uncertainty			
Question :				
Transmittance measureme				
Has the relative uncertainl of values in which the mea	y on the transmittance value to be calculat asure is carried out?	ed on the value of th	ne measure or on the max	kimum value of the range
Solution :				
	nich is applicable to a measured transmitta ne measure is carried out accordingly with			e maximum value of the
Sent for information to :	☐ members of the VG ☐ other VG(s)	□ HC (2) □	1 TC (3)	□ other (5)



CNB/P/03.004
Revision 03
Language · F

DECOMMENDATION FOR LISE

* * *	RECOMMENDATION FOR USE			
Number of pages : 1	Date: 21/04/2006 Approval by:		Approved on :	
Origin: VG3 Eye and Face Protection		☐ Horizontal Committee	20/06/1994 e 15/12/2005	
Question related to :		EN/prEN : EN 170	Other:	
Annex :	Article :	Clause : Table 1	ا	
Key words : transmittance, band with,	scanning speed			
Question : Transmittance measurements : - for 210 mm < λ < 313 mm, the maximum transmittance value does not exceed 3.10-4. Depending on the scanning speed and the wawe range with used, the results are not always the same (especially for the sharp peaks) which can exceed 3.10-4 or not. What are the spectrophotometer settings to apply ?				
Solution :				
- Measure so slowly th	nat a further reduction of speed does not cl	nange the result. Better : stop at the wa	avelength to be measured.	
- Reduce spectral band which until a further reduction does not change the results. Sent for information to: members of the VG other VG(s) HC (2) TC (3) SC (4) other (5)				
Sent for information to :	□ members of the VG □ other VG(s)	☐ HC (2) ☐ TC (3) ☐ SC	(4)	



CNB/P/03.009			
Revision 03			
Language · F			

Number of name 1	D-4- 01/04/000/		Λ			A
Number of pages : 1	Date : 21/04/2006			roval by :		Approved on :
Origin: VG3 Eye and Face Protection				Vertical Group		
		⁻		Horizontal Committee .		
			V	Standing Committee		15/05/2012
Question related to :		EN/prEN : E	EN 1	66	Othe	er:
Annex:	Article:	Clause : 7.2	2.6			
Key words : damage by fine parti	cles, sand, reference lenses					
Question :						
Choice of the reference (sand an	d lenses) used to measure the resis	stance to dam	nage	by fine particles?		
Solution :						
- Sand Reference "P 0,5 to 0,7" s	runnlied by :					
BUSCH QUARTZ GmbH	supplied by .					
Galgenbühlstr 9	A (Cormany)					
92253 SCHNAITTENBACH 845	4 (Germany)					
Tel. (49) 96 221 761						
Fax (49) 96 224 689						
Deference lenges complied by						
- Reference lenses supplied by :	(Cormonu)					
DESAG 31073 GRÜNENPLAN	(Germany)					
Tel. (49) 51 87 771 315						
Sent for information to : 🗹 m	embers of the VG	☑ HC (2	2)	☐ TC (3) ☑ SC (4	1)	□ other (5)



CNB/P/03.010
Revision 03
Language · F

	+			
Number of pages : 1	Date : 21/04/2006		Approval by :	Approved on :
Origin: VG3 Eye and Face Protection			☑ Vertical Group	
			✓ Horizontal Committee	
			✓ Standing Committee	15/05/2012
Question related to :		EN/prEN :	EN 166, 167, 168	Other:
Annex:	Article :	Clause : Al		
Key words : paint ball		•		
Question :				
What are the test to carry out or	the paint ball eye protectors?			
Solution :				
	ssimilate to a face shield. The tests to			
* '	nd for resistance to high speed particl	· ·		
verifying impact test could be al	so performed, using the paint ball gu	n and paint i	palis at a very short distance	of the face shield.
Sent for information to : 🗹 r	members of the VG other VG(s)	☑ HC((2) □ TC (3) ☑ SC (4)



CNB/P/03.011
Revision 02
Language · F

* * *	RECOMMENDATION FOR USE			
Number of pages : 1	Date : 21/04/2006	Ар	proval by :	Approved on :
Origin: VG3 Eye and Face	e Protection	✓	Vertical Group	
			Horizontal Committee Standing Committee	
			-	
Question related to :		EN/prEN : EN	175	Other:
Annex :	Article :	Clause : All		
Key words :				
samples, welding protection	on			
Question :	and the constant of the control of t	and a Communication		المالية
What sample quantities sr	nould be used when testing to those standa	irds for which no	o sample quantities are de	etailed ?
e.g. pr FN 175 - "Personal	protection - Equipment for eye and face p	rotection during	welding and allied proces	sses"
o.g. p. 2.1 o . o.ooa.	protection Equipment of the analysis	. o.comon a.a.m.g	resuming area amou process	
Solution :				
Make reference to similar	requirements in EN 166			
In the cases where similar	requirements do not exist, e.g. "Electrical	insulation", asse	ess three samples	
Sent for information to :	☐ members of the VG ☐ other VG(s)	☐ HC (2)	□ TC (3) □ SC (4) 🗆 other (5)
	.,	. ,	·	



CNB/P/03.012
Revision 02
Language : E

DECOMMENDATION FOR LISE

* * *	RECOMMENDATION FOR USE			
Number of pages : 1	nber of pages : 1 Date : 21/04/2006 Approval by :		Approved on :	
Origin: VG3 Eye and Face Protection ✓ Vertical Group Horizontal Committee ✓ Standing Committee				
Question related to :		EN/prEN : EN 166- EN 168	Other:	
Annex :	Article :	Clause: EN 168 article 13		
Key words : Large dust particles				
Question :				
	ound robin test concerning the test of protection ethod and propose some modifications.	on against large dust particles, this sheet g	ive some explanations	
Solution :				
1- Direction of	the air flow in dust chamber : upwards (EN 16	68 § 13-1-1)		
2- The referen	ce of the suitable agitator must be deleted (El	N 168 § 13-1-1)		
of excess w - s - h	lotting paper is one that has a minimum water ater following one of the two methods bellow queezing the paper with a roller, anging up the paper to drip about 5 minutes. red that there is no more excess of water whe			
4- Before the f	irst reflectance measurement of the blotting p	paper (EN 168 § 13-2), the excess of water	must be removed (see above)	
5- As it is impossible to quantify directly the amount of coal dust circulating within the chamber, the reflectance of the blotting paper outside the goggle has to be measured after the test. This could be done on a second piece of blotting paper, attached vertically on the headform or on any support near the headform (EN 168 § 13-2). A reflectance value of less than 30% would appear to indicate when sufficient coal dust is circulating. The numerical value of the air flow (2.8 m3/min) and pressure (2250Pa) are only indicative (EN 168 § 13-1-1).				
Sent for information to	o: ☐ members of the VG ☐ other VG(s	(s)	I)	



CNB/P/03.013
Revision 03
Language · F

DECOMMENDATION FOR LISE

* * *	RECOMMENDA			
Number of pages : 1	Date: 21/04/2006 Approval by:		Approved on :	
Origin: VG3 Eye and Face	Origin: VG3 Eye and Face Protection		20/06/1994	
Question related to :		EN/prEN: EN 167	Other:	
Annex :	Article :	Clause : 3.2.2	_!\	
Key words : Refractive power, laser, ac	chromatic lens			
Question :				
- If the light source is a las	er, is it still necessary to use an achromation	c lens ? (It seems unnecessary)		
Solution :				
Solution: - ILEE group agrees that it is not necessary.				
Sent for information to :	☐ members of the VG ☐ other VG(s)	☐ HC (2) ☐ TC (3) ☐ SC ((4) □ other (5)	
Control mormation to .	— monipors of the vo — office vo(s)		in Dillor (J)	



CNB/P/03.016
Revision 02
Language · F

Number of pages : 1	Date: 01/04/2004		App	roval by :		Approved on :
Origin: VG3 Eye and Face Protection				Vertical Group		
				Horizontal Committee .		
			$\overline{\mathbf{A}}$	Standing Committee		15/05/2012
Question related to :		EN/prEN : E	EN 1	66	Othe	r:
Annex:	Article:	Clause :				
Key words :						
Electric risk						
Question :						
- How can we test eye protectors	s against electric risk?					
Solution :						
	EN 166 concerning the protection ag ors for use with firefighters, ambular					
Sent for information to : 🗹 n	nembers of the VG	☑ HC (2	2)	☑ TC (3) ☑ SC (4	.)	□ other (5)



CNB/P/03.018
Revision 02
Language · F

Number of pages : 1	Date: 01/04/2004		Approval by :	Approved on :
		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	15/06/2011	
Question related to :		EN/prEN : E	EN 166- EN1836	Other:
Annex:	Article:	Clause : EN	I 166 §7.3.3 and EN 1836-A2	! § 4.1.4
Key words : Reflectance				
Question :				
- Oculars with enhanced reflec	tance in the infrared (EN 166) and eye	e side reflecta	ance (EN 1836) : Is it specula	r or total reflectance?
Solution :				
Total reflectance				
Sent for information to :	members of the VG □ other(s) VG	. ☑ HC(2) ☑ TC (3) ☑ SC (4)	□ other (5)
Sent for information to . 🔟	members of the AO II office (2) AO		z, 편 10 (3) 편 30 (4)	Li otilei (ə)



CNB/P/03.019
Revision 02
Language · F

Number of pages : 1	Number of pages : 1 Date : 01/04/2004		Арр	roval by :		Approved on :
Origin: VG3 Eye and Face Protection			Vertical Group			
			<u>v</u>	Horizontal Committee Standing Committee		
Question related to : Directive 89.	/686/FFC	EN/prEN :			Othe	
_	Article: 1 § 2	Clause :			Ollie	a .
Key words :	G					
Clip on lenses, component						
Question :						
	mination certificate refer to, when a	manufacture	er of	an eye protector (protec	tive go	oggle) intends the use of
Clip-on-lenses?						
Solution :						
Solution .						
	s of the eye protector, in the aim of court by the test house, and an EC ce					
Its technical file and Instructions	for usors shall include a list of all a	uo protostore	a tha	alin an lancas ara dasig	nod to	he used with / attached
	for users shall include a list of all ey E certificate shall verify the performa				neu ic	be used with attached
The FC type-evamination should	I reference the standards / specific	ation used a	as a 1	reference to make sure	that th	ne combination complies
	nations certified, i.e. those satisfacto		13 U I	reference to make sure	triat ti	ic combination complies
Sent for information to :	embers of the VG	☑ HC	(2)	☑ TC (3) ☑ SC (4	.)	□ other (5)



CNB/P/03.020
Revision 02
Language · F

		<u> </u>	
Number of pages : 1	Date: 13/10/2006	Approval by :	Approved on :
Origin: VG3 Eye and Face Protection			30/11/2006
			e15/06/2011
		☑ Standing Committee	15/05/2012
Question related to :		EN/prEN : EN 166 : 2001	Other:
Annex :	Article:	Clause : §7.3.4	
Key words :			
Protection against high sp	eed particle at extremes of temperature		
Question :			
at extremes of temperatur	s tested against and meets the requiremend in your view is it also necessary to test es in order to mark the eye protector with	against and satisfy the requirements of	
Solution :			
- No, it's not necessary. If	protectors pass the high-speed particles to	est at 55°C and -5°C, they also resist a	at ambient temperature.
Sent for information to :	✓ members of the VG □ other(s) VG	☑ HC (2) ☑ TC (3) ☑ SC	(4) □ other (5)



CNB/P/03.021
Revision 03
Language · F

~	1	1		
Number of pages : 1	Date : 2010-11-29		pproval by :	Approved on :
Origin: VG3 Eye and Face Protection		₹	V Citical Citap	24/11/2010
		✓		15/06/2011
		✓	1 Standing Committee	15/05/2012
Question related to :		EN/prEN : EN	l 175 : 1997	Other:
Annex :	Article:	Clause : § 5.5)	
Key words :				
Resistance of welder's shield to	damage when dropped			
Question :				
	Resistance of welder's shields to dar Il not suffer permanent damage likely			sentence says: "Also the filter
Problem :				
the clause. But there is no requested separately, the minimal reduction of VG3 (2010-11-24):		ing/cover plate	es must resist to damage	when dropped when they are
	y that the face shield resists to dro not a fail if the glass filters will bre		eps the oculars in correc	t position : So the test is
	follows: It with oculars. It is not a fail if the into account this amendment. CE			nt from WG4 convenor.
Sent for information to : 🗹 r	members of the VG □ other(s) VG	☑ HC (2)	☑ TC (3) ☑ SC (4)



CNB/P/03.022
Revision 02
Language · F

Number of pages : 1	Date : 2010-11-29		Appro	val by :		Approved on :	
Origin: VG3 Eye and Face Protection		☑ H	Vertical Groupt Horizontal Committee Standing Committee	9	15/06/2011		
Question related to :		EN/prEN : E	EN 166	6 : 2001	Othe	er:	
Annex:	Article:	Clause : § 7	7.3.1 a	and § 7.3.2			
Key words : Resistance to surface damage by fine particles – Resistance to fogging - Marking							
Question :							
Is it acceptable to have anti-foggi anti-scratch on the external face)	ing and/or anti-scratch coatings only? What is the relevant marking?	y on one fac	e of th	e ocular (example :	anti-fog	ging on the internal face,	
Solution :							
the precision that "anti-fogging co It could be more information in ad	e "K" and "N" symbols, but the inforeating is only on internal face of the addition to the information for users, firscratch-side" on the external face.	ocular and a	nti-scra	atch coating is only	on the e	xternal face".	
Sent for information to : 🗹 m	embers of the VG □ other(s) VG	☑ HC(2) 🔽	☑ TC (3) ☑ SC	(4)	□ other (5)	



Draft CNB/P/03.023
Revision 01
Language : E

* * *	RECOMMENDA	RECOMMENDATION FOR USE		
Number of pages : 1	Date : 2010-11-29		Approval by :	Approved on :
Origin : Committee of Gerr	man Notified Bodies (Eye and face prote	ction)	☑ Vertical Group	24/11/2010
			✓ Horizontal Committee	15/06/2011
			✓ Standing Committee	
Question related to :		EN/prEN :	EN 207	Other:
Annex :	Article :	Clause :		
Key words :				
Laser protection filters made	de of glass; scale number			
Question :				
	lence that laser protection filters made of rding to the requirements of EN 207:2009 500 DI LB5?			
Solution :				
Laser protection filters mad provide a specially designed	de of glass intended to protect against la ed reflection coating that inhibits or reduc cale number higher than 10600 DI LB5 i	es the impac	ct of the laser radiation into the	
Sent for information to :☑	members of the VG 3	G ☑ HC	(2) Z TC 85 (3) Z SC (4))



Draft CNB/P/03.024 Revision 05 Language : E

	RECOMMANDATION FOR USE					
Number of pages : 1	Date : 2012-02-07		App	proval by :	•	Approved on :
Origin: Committee of Gern	nan Notified Bodies (Eye and face protecti	ion)	\times	Vertical Group		2012-02-24
			\times	Horizontal Committee .		2012-10-11
			X	Standing Committee		2013-03-12
Question related to : Direc	tive 89/686/EEC	EN/prEN :	EN 1	166	Othe	er:
Annex : II	Article: 3.6	Clause : 7.2	2.7			
Key words :						
Eye and face protection ag	ainst electrical arc; additional requirement	ts				
Question :						
	he thermal protection, in connection with t , EN 166, to fulfil the protective aims of ap					
Solution :						
	est principles GS-ET-29 (2011-05)* "Supused as a standard for EC-type examination		equi	rements for testing and	certific	cation of face shields for
Note: Alternative methods (89/868/EEC.	can be used when they are available and	when they fu	ulfil tl	he essential requiremen	ts of th	ne PPE Directive
* German test principles wr	ritten by: Expert Committee for electrical e	engineering,	Test	- and Certification body	at DGI	JV-TEST.;
Sent for approval to : 🗵 (5)	members of the VG 3 □ other(s) VG	⊠ HC((2)	□ TC 85 (3) ⊠ SC (4	1)	☐ ISO TC94/SC6



CNB/P/03.025
Revision 03
Language : E

***					_	
Number of pages : 1	Date : 2012-02-07		Approval by :			Approved on :
Origin : Committee of Gerr	man Notified Bodies (Eye and face protecti	on)	∨ Vertica	al Group		2012-02-24
			☑ Horizontal Committee			2012-10-11
			Standi	ng Committee		2013-03-12
Question related to : PPE-	Directive 89/686/EEC	EN/prEN :			Othe	r:
Annex : II	Article: 2.12	Clause :				
Key words :						
Eye- and face protection a	gainst thermal effects by electric arc; Mark	ing				
O a atha is						
Question :						
Should the suitability for "li	ive working" be marked on Eye- and face p	orotectors aç	gainst therma	al effects by electr	ric arc	?
Solution :						
appendix II of the PPE dire For PPE that fulfil the GS- working", shall be marked	identity figure 8 the suitability for the protective, signs or marks for statements relevance. ET-29 (2011-05)* requirements, in accordation with the picture sign IEC 60417 – 5216 (see ffects by electric arc are body protection.	ant for secu ance with Ef ymbol of the	rity must be on the one of the order of the	understandable a ly protection and ngle" with additio	nd ver safety n "100	y uniform. y devices for the "live 00V). Eye – and face
	mbol for protective clothes against therma against the thermal hazards of an electr				IEC 6	51482-2 Ed.1:2009 Live
* or a similar method (see	RfU- 03 -024)					
Sent for approval to : (5)	■ members of the VG □ other(s) VG	⊠ HC	(2) 🗆 TC	(3) × SC (4))	□ ISO TC94/SC6

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 4 "Hearing Protection" of the European Coordination of Notified Bodies in the field of PPE

Number of RfU	Version	Reference	Keywords	Approved by Vertical Group 4	Approved by Horizontal Committee	Approved by PPE Expert Group
04.001	03	EN 352-1:2002 clause 4.3.8, EN 13819-1:2002 clause 4.4	Ear-muffs with different wearing modes, headband force	14/09/1993		15/12/2005
04.003	03	EN 352-4:2001, EN 352-1/2/3/5/6/7:2002 clause 6	Wearer information	14/09/1993		15/12/2005
04.004	03		Product modification	06/09/1994		15/12/2005
04.005	03		Testing of HPD without harmonised standards	06/09/1994		15/12/2005
04.006	03	EN 352, EN 13819- 2:2002 clause 4.2, ISO 4869-1	HPD of particular size, sound attenuation measurement	06/09/1994		15/12/2005
04.007	03	EN 13819-1:2002 clauses 4.6, 4.7	Ear-muffs, drop test	06/09/1994		15/12/2005
04.008	03	EN 13819-2:2002 clause 4.2, ISO 4869-1	Sound attenuation, ear plugs in different colours	28/11/1995		15/12/2005
04.009	03	EN 13819-2:2002 clause 4.2, ISO 4869-1	Sound attenuation, custom-moulded ear-plugs	28/11/1995		15/12/2005
04.010	07	EN 352-2: 2002, 89/686/EEC, Annex II, Art.:1.2.1	Corded custom moulded ear-plugs, corded ear-plugs, ear plugs	06/01/2006	24/10/2011	15/05/2012
04.011	03	EN 352-2:2002 clause 4.2.2.4	Re-usable ear-plugs, storage-packaging	28/11/1995		15/12/2005
04.012	03	EN 352-3:2002 clause 4.3.4	Helmet mounted ear- muffs	28/11/1995		15/12/2005
04.014	04	EN 352-4:2001 clause 4.3.2, ISO 4869-4	Level-dependent ear- muffs, criterion levels	25/10/1999		15/12/2005
04.015	05	EN 352-4:2001 clause 4.3.3, EN 13819- 2:2002, ISO 4869-4	Level-dependent ear- muffs, MIRE, measurement noise, volume control	19/10/2001		15/12/2005
04.016	05	EN 352-4:2001 clause 4.3, EN 458	Impulse noise, level- dependent ear-muffs with sound restoration system	19/10/2001		15/12/2005
04.017	04	EN 352-2:2002	Custom-moulded ear plugs	25/10/1999		15/12/2005
04.019	04	EN 352-4:2001, EN 352-8:2002	Level-dependent earmuffs with integrated broadcast-receiver	25/10/1999		15/12/2005
04.020	07	EN 352-6:2002	Communication ear-muffs with an audio input (by wire)	19/10/2001		15/12/2005
04.021	04	EN 352-8:2002	Ear-muffs with broadcast- receivers	25/10/1999		15/12/2005
04.022	04	EN 352-6/8/11:2002	Hearing protection device with audio communication	25/10/1999		15/12/2005
04.023	06	EN 352-5:2002 clause 4.3.2, 6 and Annex B	Testing of active noise reduction ear- muffs	19/10/2001		15/12/2005
04.027	04	EN 352-8:2002	Wireless complete hearing protection systems with reproduced sound for entertainment	26/10/1999		15/12/2005

Status: November 2015

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 4 "Hearing Protection" of the European Coordination of Notified Bodies in the field of PPE

Number of RfU	Version	Reference	Keywords	Approved by Vertical Group 4	Approved by Horizontal Committee	Approved by PPE Expert Group
04.029	04	EN 352-3:2002 clause 4.1, EN 13819-1:2002 clause 4.2.3.2	Adjustability and size- ranges for ear-muffs attached to an industrial safety helmet	25/10/1999		15/12/2005
04.031	04	EN 352-11:2002	Communication ear-muffs receiving and transmitting wireless	11/09/2000		15/12/2005
04.032	05	EN 352-7:2002	Ear-plugs with audio communication	19/10/2001		15/12/2005
04.034	03	EN 352-4:2001 clause B.3 (Annex B)	MIRE-technique, interpolation, extrapolation, criterion level, level-dependent ear-muffs	19/10/2001		15/12/2005
04.035	04	EN 13819-2:2002 clauses 4.2.2, 4.3.2, ISO 4869-1	Test site, reverberation time, level-dependent hearing protector, active noise reduction (ANR) hearing protector	19/10/2001		15/12/2005
04.036	03	EN 13819-2:2002 clause 4.1.4	Insertion loss, asymmetric design, electronic earmuffs	26/06/2001		15/12/2005
04.037	04	EN 13819-1:2002 clause 5.2.3	Nominal size designation, flanged ear-plugs	26/06/2001		15/12/2005
04.038	06	EN 352-4:2001, EN 352-7:2002, EN 352- 1:2002, EN 352-2: 2002, EN 352-3:2002	Level dependent ear-muff/ -plugs, minimum criterion levels	14/10/2013	03/11/2014	19/09/2015
04.039	05		Ear plugs, special use, risk in water	17/09/2004	03/12/2005	15/07/2008
04.040	02	EN 352-7:2002, Clause 4.1.4	Ear plugs, non-passive ear-plugs, special use, impulse noise	06/01/2006	24/10/2011	15/05/2012
04.041	01	EN 352-6: 2002, Clause: Annex B, 89/686/EEC, Annex II, Article: 3.5	Calculation of mean electrical input level, ear muffs with electrical audio input	06/01/2006	24/10/2011	15/05/2012
04.042	02	EN 352-2: 2002, 89/686/ECC, Annex II, Article: 1.3.1	Banded ear plugs worn under the chin, test dimension for sizing	06/01/2006	24/10/2011	15/05/2012
04.043	01	EN 352-2: 2002, 89/686/ECC, Annex II, Article: 2.9	Banded ear plugs, exchange of plugs of banded ear-plugs	06/01/2006	24/10/2011	15/05/2012
04.044	01	EN 352-6: 2002, Clause: 4.2 89/686/ECC, Annex II, Article: 1.2	Ear muffs with electrical audio input, electrical safety	06/01/2006	24/10/2011	15/05/2012
04.045	01	EN 352-2: 2002, 89/686/ECC, Annex II, Article 3.5	Additional check of protective function, custom moulded ear plugs, leakage	19/03/2007	24/10/2011	15/05/2012
04.049	03	EN 352-6:2002	Ear muffs with communication facilities	17/01/2014	03/11/2014	19/09/2015

Status: November 2015

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 4 "Hearing Protection" of the European Coordination of Notified Bodies in the field of PPE

Number of RfU	Version	Reference	Keywords	Approved by Vertical Group 4	Approved by Horizontal Committee	Approved by PPE Expert Group
04.050	02	EN 352-5:2002 + A1:2005	Hearing protectors with	14/10/2013	03/11/2014	19/09/2015
04.051	01	EN 13819-2:2002	Drop test for ear plugs	17/01/2014	03/11/2014	19/09/2015
04.052	01	EN 352-6:2002	Hearing protectors for safety-related communication, user information	17/01/2014	03/11/2014	19/09/2015

Note: Recommendation for Use sheets which deal with withdrawn and / or superseded standards and which no longer apply to new certifications are published as reference for previous files.

Status: November 2015

3



CNB/P/04.001
CNB/P/04.001 Revision 03
Language · F

* * *	RECOMMENDA	TION FOR USE	
Number of pages : 1	Date : 21/04/2006	Approval by :	Approved on :
Origin : VG 4		✓ Vertical Group ☐ Horizontal Committee ✓ Standing Committee	
Question related to :		EN/prEN : 352-1:2002/ 13819-1:2002	Other:
Annex :	Article :	Clause : 4.3.8 of EN 352-1, 4.4 of EN 1	!!
Key words : Ear-muffs with	h different wearing modes, headband force		
	urement of headband force) for ear-muffs i 1. How shall the testing of 'headband force'		
=	eadband force is checked during mechanical of the headband force have to be repeated	•	
Sent for information to :	☐ members of the VG ☐ other(s) VG	☐ HC (2) ☐ TC (3) ☐ SC (4	l)



CNB/P/04.003
Revision 03
Language · F

Number of pages : 1	D-4 04/04/0000					
	Date: 21/04/2006		Appı	roval by :		Approved on :
Origin: VG4 Hearing Protection	ion		V	Vertical Group		13./14.09.1993
		ı	☐ Horizontal Committee			
			V	Standing Committee		15.12.2005
Question related to : Directive 8	39/686/EEC	EN/prEN:3	52-1	/2/3/4/5/6/7	Othe	r:
Annex : II, 1.4 Article : Clause : 6 (of EN 352-1/2/3/5/6/7:2002, of EN 352-4:2001)						352-4:2001)
Key words : Wearer information)					
Question : In which language shall the dra	ft of the wearer information be submit	ted?				
Solution : It was agreed that 1. the manufacturer's draft wea	rer information shall be made in a lan	quage accept	table	e to the test laboratory.		boratory may assist the
	vearer information in the test laborato	ry's official la	ngua	age		
and						
2. that the manufacturer, by sig country of destination in Europe	ning the application form, undertakes ਭ.	to provide an	n ide	ntical translation to the o	official	language(s) of the
Sent for information to :	members of the VG □ other(s) VG	☐ HC (2	2)	□ TC (3) □ SC (4)	□ other (5)



CNB/P/04.004
Revision 03
Language : E

* * *	RECOMMENDA		
Number of pages : 1	Date : 21/04/2006 Approval by :		Approved on :
Origin : VG4 Hearing Prote	ection	✓ Vertical Group	
Question related to :		EN/prEN :	Other:
Annex:	Article :	Clause :	!!
Key words : Product modifi	ication		
Question : Which tests are necessary	for the EC-type examination of a modified	I existing CE marked HPD?	
what, if any, further testing	the EC-type test of a modified existing CE is necessary. In case of doubt the notified dy and presented at the subsequent VG-r	d body may seek guidance through the Vo	
Sent for information to :	☐ members of the VG ☐ other(s) VG	6 □ HC (2) □ TC (3) □ SC (4	4)



CNB/P/04.005
Revision 03
Language : E

***		<u>.</u>				
Number of pages : 1	Date: 21/04/2006		Approval by :	Approved on :		
Origin: VG4 Hearing Prote	tion		☑ Vertical Group	05./06.09.1994		
			☐ Horizontal Committee			
			☑ Standing Committee	15.12.2005		
Question related to : Direct	tive 89/686/EEC	EN/prEN:		Other:		
Annex :	Article :	Clause :	!			
Key words : Testing of HPI	D without harmonised standards					
Question :						
How to test HPDs for which	h no harmonised standard exists?					
Calcation .						
Solution :	C type test of an HDD for which no barma	nicod otondo	ard eviate:			
a) Use the most recent pr	C-type test of an HPD for which no harmo	miseu standa	iiu exists			
	⊑ार, ਹਾ, ਜ ਜਹਾ available, mmittee working document, or, if not availa	ablo				
•	uest suggestions/solutions from other mer					
c) approach vo 4 and req	uest suggestions/solutions from other mer	ilbers.				
Sent for information to :	☐ members of the VG ☐ other(s) VG	☐ HC (2	2) □ TC (3) □ SC (4))		



CNB/P/04.006
Revision 03
Language · F

	REGOMMENDA					
Number of pages : 1	Date : 21/04/2006		Approval by :	Approved on :		
Origin: VG4 Hearing Prote	ction		☑ Vertical Group	05./06.09.1994		
			☐ Horizontal Committee			
			✓ Standing Committee	15.12.2005		
Question related to :		EN/prEN:	352 (all parts), 13819-2	Other : ISO 4869-1		
Annex :	Article :	Clause : 4.	2 (of 13819-2:2002)	'		
Key words : HPD of particular	lar size, sound attenuation measurement	•				
Question :						
How to test hearing protector	ors of particular size in accordance with E	N 13819-2:	2002, clause 4.2.			
Solution:	Desta de la Calada de la Calada de C	. J EN O	20 (all and a) the falls of a con-	to a data to the state of		
VG 4 agrees that, when HP	PDs of a particular size (e.g. large, small) u	under EN 35	o2 (all parts), the following pro	stocol should be used:-		
In the case of an HPD which	ch does not fit all size ranges given in the	standard o	ach tost subject shall be aske	d if the specimen fits. If it		
does, the test shall be perfo	ormed. If it does not, the subject shall be r	ejected fron	n the panel and replacement p	provided.		
Sent for information to :	\square members of the VG \square other(s) VG	□ HC	(2))		



CNB/P/04.007
Revision 03
Language : E

	RECOMMENDATION FOR USE					
Number of pages : 1	Date : 21/04/2006	1	Approval	l by :		Approved on :
		ı	□ Hori	tical Grouptical Group izontal Committee nding Committee		05./06.09.1994 15.12.2005
Question related to :		EN/prEN : 1	3819-1:2	2002	Other	
Annex:	Article :	Clause : 4.6		ı,		
Key words : Ear-muffs, drop test						
Question : How shall ear-muffs be examine	d for damage after drop test?					
Solution: When examining an HPD for dare then replaced.	mage after drop test, if necessary, the	e cushions ar	nd/or line	ers should be remove	ed bef	ore examination and
Sent for information to :	nembers of the VG □ other(s) VG	☐ HC (2	2) 🗆	TC (3)	1	□ other (5)



CNB/P/04.008
Revision 03
Language · F

***	REGOMMENDA						
Number of pages : 1	Date : 21/04/2006		Approval by :	Approved on :			
Origin: VG4 Hearing Prote	ection		☑ Vertical Group	27./28.11.1995			
			☐ Horizontal Committee				
			☑ Standing Committee	15.12.2005			
Question related to :		EN/prEN: 1	3819-2:2002	Other : ISO 4869-1			
Annex:	Article:	Clause : 4.2		·			
Key words : Sound attenua	ation, ear plugs in different colours						
Question : Shall sound attenuation m	Question : Shall sound attenuation measurements be repeated in case a plug is supplied in different colours?						
Solution : If possible, one measurement should be performed and the samples used for that measurement should include all of the colours.							
Sent for information to :	☐ members of the VG ☐ other(s) VG	□ HC (2) 🗆 TC (3) 🗆 SC (4	c)			



CNB/P/04.009
Revision 03
Language : E

* * *	RECOMMENDA				
Number of pages : 1	Date : 21/04/2006	Approval by :	Approved on :		
Origin : VG4 Hearing Prote	ection	✓ Vertical Group ☐ Horizontal Committee ✓ Standing Committee			
Question related to :		EN/prEN: 13819-2:2002	Other : ISO 4869-1		
Annex:	Article :	Clause : 4.2			
Key words : Sound attenua	ation, custom moulded ear-plugs				
Question :					
Some types of custom mo	ulded ear-plugs are offered with a special o	cream intended to ease the insertion of the	e plug into the ear-canal.		
Shall sound attenuation me	easurements be performed using such cre	am?			
Solution :					
The sound attenuation measurements shall be performed without the use of such cream.					
Sent for information to :	☐ members of the VG ☐ other(s) VG	□ HC (2) □ TC (3) □ SC (4)		



CNB/P/04.010
Revision 07
Language · F

Number of pages : 1	Date: 14/11/2005	A	oproval by :	Approved on :
Origin: VG4 Hearing Prote	ection (submitted by BGIA)	✓	1 Vertical Group	06/01/2006
		✓		24/10/2011
		☑	_	I 15/05/2012
Question related to : Direct	tive 89/686/FFC	EN/prEN : EN		Other:
Annex : Annex II	Article : 1.2.1	Clause :	. 002 2.2002	Curor .
Key words : Corded custor	m moulded ear-plugs, corded ear-plugs, ea	ar plugs		
Question :				
By sudden and fast	removal of ear plugs ear drum	ruptures oc	curred, especially w	hen the cord of
	as used to remove the plugs out	of the ear	canal. What should	notified bodies
require from the ma	nufacturer to avoid this?			
Solution :				
	hould add a warning to the user	· informatio	n: "Warning: Sudde	n or fast removal of
	the ear canal may damage the		3	
Sent for information to :		☑ HC (2)	☑ TC 159 ☑ SC (4	other (5)



CNB/P/04.011
Revision 03
Language : F

***	RECOMMENDATION FOR USE			
Number of pages : 1	Date : 21/04/2006	Approval by :	Approved on :	
Origin : VG4 Hearing Prote	ection	✓ Vertical Group☐ Horizontal Committee✓ Standing Committee		
Question related to :		EN/prEN : EN 352-2:2002	Other:	
Annex:	Article :	Clause : 4.2.2.4		
Key words : Re-usable ear	-plugs, storage-packaging			
Question : How should a storage-pack	kaging for re-usable ear-plugs be designed	d?		
Solution: No recommendation can be given. This must be decided by each notified body from case to case.				
Sent for information to :	☐ members of the VG ☐ other(s) VG	☐ HC (2) ☐ TC (3) ☐ SC (4)	



CNB/P/04.012
Revision 03
Language · F

***	RESOMMENDATION FOR SOL			
Number of pages : 1	Date: 21/04/2006	F	Approval by :	Approved on :
Origin: VG4 Hearing Prote	ection	E	☑ Vertical Group	27./28.11.1995
			☐ Horizontal Committee	
		<u> </u>	✓ Standing Committee	15.12.2005
Question related to :		EN/prEN : E	N 352-3:2002	Other:
Annex:	Article :	Clause: 4.3	.4	'
Key words : Helmet-mount	ed ear-muffs			
Question :				
	n fulfilling the reqirements "Adjustablity" for ination be tested and sold as a M-size con			N for the M-size, but >14N for
the L-Size. Can this combi	iliation de testeu anu solu as a M-Size con	ibiliation only	!	
0.1.11				
Solution :	combination can be tested and cald as an	M siza sambiu	action only	
it was agreed that such a d	combination can be tested and sold as an	IVI-SIZE COMDII	iation only.	
Sent for information to :	☐ members of the VG ☐ other(s) VG	HC (2)	other (5)
Control morniquent to .		10 (2	, (0, _ 0 00 (4	, = 50.01 (0)



CNB/P/0	4.014
Revision	04
Language	٠F

* * *	RECOMMENDATION FOR COL		
Number of pages : 1	Date : 21/04/2006	Approval by :	Approved on :
Origin: VG4 Hearing Prote	ction	✓ Vertical Group	
		☐ Horizontal Committee	
		☑ Standing Committee .	15.12.2005
Question related to :		ENprEN: 352-4:2001	Other : ISO 4869-4
Annex :	Article :	Clause: 4.3.2	
Key words :			
Level-dependent ear-muffs	, criterion levels		
Question :			
Should the criterion level (d	lefinded in prEN 352-4:1994) be the mea	n values minus one standard deviation'	?
0.1.6.			
Solution:	e level of protection as established in EN	350 1 0 and 3	
res. This is to get the same	e level of protection as established in EN	332-1, -2 and -3.	
			(1)
Sent for information to :	☐ members of the VG ☐ other(s) VG	☐ HC (2) ☐ TC 159 ☐ SC	(4)



CNB/P/04.01
Revision 05
Language · F

	* * *	RECOMMENDATION FOR USE			
Nun	nber of pages : 1	Date : 21/04/2006	Approval by :	Approved on :	
Orig	Origin : VG 4 Hearing protection		☑ Vertical Group		
			☐ Horizontal Committee☑ Standing Committee		
Que	estion related to :		EN/prEN: 352-4:2001/13819-2:2002	Other : ISO 4869-4	
Ann	ex:	Article :	Clause :/ 4.3.3		
Key	words:				
Lev	el-dependent ear-muf	ffs, MIRE, measurement noise, volume cont	rol		
Que	estion :				
1.		should be used for the testing? Should MIRE kture)-technique be used?	E(microphone in real ear)- or HATS(head	and torso simulator)- or	
2.	Which tolerances sh	nall be aimed at for the generation of the L-o	rientated, M- , and H-orientated noise de	scribed in EN 352-4?	
3.	Which adjustment of	f the volume control shall be used for the tes	sting of the level-dependent function of th	e ear muff?	
Rec	commended solution :				
1.	1. The MIRE-technique as described in Annex B of EN 352-4 (2001) should be used. In the area of the concha the microphone, including supporting elements and electrical leads, shall occupy an area not exceeding 25 mm² in the plane perpendicular towards the centre axis of the ear canal (this differs from ISO/DIS 11904-1). The microphone position shown in Figure 1 a) of ISO/DIS 11904-1:2000 shall be used. , i.e. open ear canal and the port of the microphone shows towards the ear drum and the position is in between the ear canal entrance and the ear drum, preferable near by the ear canal entrance in a distance of a few mm.				
2.	-0.2				
_		and calculate the L _C – L _A value.			
3.	Adjust to maximum \	volume.			
Sen	t for information to :	☐ members of the VG ☐ other(s) VG	☐ HC (2) ☐ TC 159 ☐ SC (4)	



CNB/P/04.016
Revision 05
Language · F

* * *	RECOMMENDATION FOR USE				
Number of pages : 1	Date : 21/04/2006	Approval by :	Approved on :		
Origin: VG 4 Hearing protect	tion (submitted by BIA, Germany)	✓ Vertical Group ☐ Horizontal Committee ☑ Standing Committee			
Question related to :		EN/prEN: 352-4:2001	Other : 458		
Annex:	Article :	Clause : 4.3	II		
Key words : Impulse noise, level depende	ent ear-muffs with sound restoration sys	tem			
Question : In which way shall the peak	Question : In which way shall the peak attenuation of level-dependent ear-muffs with sound restoration system be tested?				
Recommended solution : Note that EN 352-4-2001 does not cover the assessment of protection of ear muffs against the risk of exposure to high peak levels, i.e. L _{peak} ≥ 140 dB. Check first on the ATF (artificial test fixture, EN 24869-3:1993) that the ear-muff works properly. Check with steady noise that the ear-muff is properly fitted onto the subjects head (with electronic switched off). Then measure - using an appropriate noise source i.e. a starting pistol with a peak level of 155-160 dB - the peak attenuation by MIRE-technique (see ISO 11904-1, 2002). If not applicable a suitable HATS (head and torso simulator) or ATF can be used but check the validity of the results.					
Sent for information to :	□ members of the VG □ other(s) VG	☐ HC (2) ☐ TC 159 ☐ SC (4	4)		



CNB/P/04	4.017
Revision	04
Language	٠F

* * *	RECOMMENDATION FOR USE		
Number of pages : 1	Date: 21/04/2006 Approval by:		Approved on :
Origin : VG 4 Hearing protection (submitted by BIA, Germany) ☑ Vertical Group ☐ Horizontal Committee			
Question related to :		EN/prEN: 352-2:2002	Other:
Annex :	Article :	Clause :	
Key words : Custom moulded ear-plugs	3		
Question : Which qualification is requi	red for a person, who makes impressions	of the concha and external ear-canal of	the test subjects?
Recommended solution :			
	a trained specialist for hearing aids or ade		
Sent for information to :	☐ members of the VG ☐ other(s) VG	6 □ HC (2) □ TC 159 □ SC (4	4)



CNB/P/04.019		
Revision 04		
Language · F		

RECOMMENDATION FOR USE				
Number of pages : 1	Date: 21/04/2006	Approval by :	Approved on :	
Origin: VG 4 Hearing prote	ection (submitted by BIA, Germany)	☑ Vertical Group		
		☐ Horizontal Committee☑ Standing Committee		
Question related to : PPE-directive 89/686/EEC EN/prEN : 352-4:2001, 352-8:2002			Other:	
Annex : II	Article: 1.2, 2.3	Clause :		
Key words :				
Level-dependent ear-muffs	s with integrated broadcast-receiver			
Question :				
How should level-depende	nt ear-muffs with built-in broadcast-receive	ers be tested?		
1				
Recommended solution :				
	s with built-in broadcast-receivers should b	e tested in the following way:		
·	r-muff according to EN 352-4:2001 and			
2. as a broadcast ear-muff 8:2002.	using either signal generators or public br	oadcast stations applying the MIRE-tech	nique according to prEN 352-	
Within a final test all functions of the ear-muff shall be set to maximum volume while the test subject is exposed to a diffuse sound field (according to EN 352-4:2001) at criterion level and simultaneously a public broadcast station or a corresponding signal of a signal generator is received by the specimen under test. The maximum sound level achieved in this test situation has to be determined and assessed.				
The manufacturer has to give a warning in the user information: "The audibility of warning signals at a specific workplace may be impaired.".				
Sent for information to :	☐ members of the VG ☐ other(s) VG	☐ HC (2) ☐ TC 159 ☐ SC (4	4)	



CNB/P/04.020
Revision 07
Language · F

RECOMMENDATION FOR USE			
Number of pages : 1	Date : 21/04/2006	Approval by :	Approved on :
Origin : VG 4 Hearing protection (submitted by BIA)		✓ Vertical Group ☐ Horizontal Committee ✓ Standing Committee	
Question related to :		EN/prEN: 352-6:2002	Other:
Annex :	Article :	Clause :	II.
Key words : Communication ear-muffs v	vith an audio input (by wire)		
Question : How should communication	ear-muffs be tested? Which requirement	s shall be fulfilled by these HPDs?	
Recommended solution :			
One way system:			
1. In addition to the require	ements found in EN 352-6:2002, Annex E	s, clause B.3 input voltages shall be give	n in Vrms.
3. Assessment:			
 In case of a SPL-limit the level equal to 85 c 	ation test the limiter; the mean plus one s IB(A) minus 3dB(A).	tandard deviation of the equivalent diffus	se field SPL shall not exceed
- In case of no SPL-limitation test the specification of the manufacturer delivered for the user (e.g. "criterion input voltage level") in order not to exceed the daily exposure limit. Two warnings have to be given in the user information like "When exceeding the specified limits a risk of hearing impairment exists" and "This hearing protector may not be used to restore entertainment.".			
Two way system:			
Check the additional contribution to the SPL by the transmission via the microphone use an artificial mouth according ITU-T Recommendation P.50 (03/93) and P.51 (08/96) with speech simulating noise according to IEC 268-1 from 60 to 100 dB(A) in 5 dB-steps.			
The manufacturer has to give impaired.".	ve a warning in the user information: "The	audibility of warning signals at a specifi	c workplace may be
Sent for information to :	☐ members of the VG ☐ other(s) VG	☐ HC (2) ☐ TC 159 ☐ SC (-	4)



CNB/P/04	4.021
Revision	04
Language	٠F

* * *	RECOMMENDATION FOR USE			
Number of pages : 1	Date : 21/04/2006	Date : 21/04/2006 Approval by :		Approved on :
Origin : VG4 Hearing protection			roup	
☐ Horizontal Commit ☑ Standing Committee				
Question related to : EN/prEN : 352-8:2002			Oth	ner:
Annex:	Article :	Clause :		
Key words :				
Ear-muffs with broadcast-	receivers			
Question :				
Which test method should	be applied for the broadcast receiving fund	ction of a protective ear-muf	f	
i) using that public broad	cast station which results in the highest so	ınd pressure level or		
ii) using a signal generato	or in the laboratory?			
What is the allowable may	imum sound pressure level for the broadca	et restoration of an ear-muf	f with broadcast-r	eceiver?
what is the allowable max	amam sound pressure level for the broader	strestoration of an ear-mar	With broadcast-i	COCIVCI :
Recommended solution :				
	ne selection of the signal source made sho	uld refer to the sound pressi	ure level at the us	er's ear under typical or
worst conditions. If the tes	t laboratory provides typical or worst case cound pressure level produced by the signa	conditions method i) should	be preferred. Usin	ng method ii) the
relationship between the s	ouria pressure lever produced by the signa	r generators and typical or v	7015t case conditi	ons must be determined.
	e standard deviation - obtained out of 16 m shall be lower than 82 dB(A) for the broad		sound pressure le	evels (s. Annex B of prEn
	Shall be lower than 62 ab(rt) for the broad	dot restoration.		
Sent for information to :	☐ members of the VG ☐ other(s) VG	☐ HC (2) ☐ TC 15	9 □ SC (4)	□ other (5)



CNB/P/04	1.022
Revision	04
Language	٠E

RECOMMENDATION FOR USE			
Number of pages : 1	1 Date: 21/04/2006 Approval by:		Approved on :
Origin: VG 4 Hearing protection ☑ Vertical Group 4 ☐ Horizontal Committee ☑ Standing Committee			
Question related to : 89/6	86/EEC	EN/prEN: 352-6/-8/-11:2002,	Other:
Annex : II	<u> </u>		
Key words :			
Hearing protection device	with audio communication		
Question :			
i) Is a hearing protection	n device (HPD) with audio communication a	a hearing protector within the meaning of	directive 89/686/EEC?
ii) Is it possible to certify a communication hearing protector without sound pressure limiter limiting the total exposure of the user according to the requirement given in the PPE-Directive?			
Recommended solution :			
i) It is an HPD if the ma	nufacturer declares it and it should meet th	e requirements of the directive.	
ii) From the technical point of view it is possible to produce every communication hearing protector with a sound pressure level limiter. Therefore in general it should not be possible to certify communication hearing protectors without limiter. In case a specific need exists for no limitation or a limitation at higher values of L _{Aeq} (equivalent continous A-weighted sound pressure level) than those values of L _{Ard} (rating level) given by the			
basic health and safety requirement "Protection against the harmful effects of noise", clause 3.5 of Annex II of the Council Directive of 21 Decemner 1989 on the approximation of the laws of the Member States relating to personal protective equipment (89/686/EEC)			
packaging. In addition	ricted to specific applications. These applic an appropriate warning and a description ot to exceed the daily limit value.		
Sent for information to :	☐ members of the VG ☐ other(s) VG	i □ HC (2) □ TC 159 □ SC (4)

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CNB/P/04.023
Revision 06
Language : E

* * *	RECOMMENDATION FOR USE		
Number of pages : 1	r of pages : 1 Date : 21/04/2006 Approval by :		Approved on :
Origin : VG 4 Hearing prot	rection (submitted by BIA)	✓ Vertical Group☐ Horizontal Committee✓ Standing Committee	
Question related to : EN/prEN : EN 352-5:2002 Other :			Other:
Annex :	Article :	Clause : 4.3.2, 6 and Annex B	
Key words : Testing of active noise red	luction ear-muffs		
i) a combination of pasii) only active data results.2. How to consider the spr	sumed protection values, ISO 4869-2:1994 ssive and active attenuation data or ulting from MIRE(microphone in real ear)-maked of active attenuation (s. prEN 352-5, collect for the testing and how to determine the	neasurements? clause 4.3.3)?	
be calculated as follo $m_{combined,f} = m_{pa}$ $sd_{combined,f} = \sqrt{sa}$ 2. The spread of active att TC 159/WG 2 responsible 3. Pink noise or similar no value; H:high, M:medium a band levels measured with 352-5, clause 3).	sive and active attenuation data as specific ws (this is not specified in EN 352-5:2002) $\frac{1}{d_{active,f}} + m_{MIRE,active-passive,f} \text{m: mean}$ $\frac{1}{d_{active,f}}^2 + sd_{passive,f}^2 \text{Sd: standard of the correst}$ Sequentiation is not to be considered (the correst). Size as described in EN 352-5:2002, Annex and L:low frequency) shall be determined by an the test noise present and the hearing property of the test noise property of the te	attenuation; f: midband frequency of the deviation. sponding paragraph in the draft standard B, clause B.2 shall be used. The relevant y use of the octave band levels calculated otector in i) active and ii) passive mode (active and iii)	was cancelled by the CEN t attenuation data (for H-,M-,L-
Sent for information to :	☐ members of the VG ☐ other(s) VG	□ HC (2) □ TC 159 □ SC (4)



CNB/P/04.027
Revision 04
Language : E

* * *	RECOMMENDATION FOR USE			
Number of pages : 1 Origin : VG4 Hearing prote	Approval by : Approved on : in : VG4 Hearing protection (submitted by BIA, Germany) ☐ Vertical Group 4			
Question related to :		EN/prEN : 352-8:2002	Other:	
Annex :	Article :	Clause :	Other .	
Key words : Wireless complete hearing protection systems with reproduced sound for entertainment				
Question : These sytems transmit sig	nals for example via local induction loaps.	How should such products be tested?		
Recommended solution: They should be tested as	ear-muffs with broadcast-receivers. (s. prE	N 352-8:2002, Annex B, clause B.3)		
Sent for information to :	☐ members of the VG ☐ other(s) VG	i □ HC (2) □ TC 159 □ SC (4	4)	



CNB/P/04.029
Revision 04
Language : E

	RECOMMENDATION FOR USE			
Number of pages : 1	of pages : 1 Date : 21/04/2006 Approval by :		Approved on :	
Origin : VG4 Hearing protectio	n (submitted by BIA, Germany)		Vertical Group 4 Horizontal Committee Standing Committee	
Question related to :		EN/prEN: 352	-3:2002, 13819-1:2002	Other:
Annex:	Article :	Clause : 4.1 of 352-3 and 4.2.3.2 of 13819-1		
Key words :				
Adjustability and size-ranges for ear-muffs attached to an industrial safety helmet				
Question :				
	es not satisfy the requirements of EN swith different head sizes. How to han		4.2.3.2, for any size-rang	ge. On the other hand it fits
Recommended solution :				
The topic has to be discussed	together with Vertical group 1. Contac	t the convenion.		
Sent for information to : □	members of the VG □ other(s) VG	☐ HC (2)	☐ TC 159 ☐ SC (4	1)



CNB/P/04	4.031
Revision	04
Language	٠E

***	RECOMMENDATION FOR USE			
Number of pages : 1	Date : 21/04/2006	Approval by :	Approved on :	
Origin: VG4 Hearing prot	ection (submitted by BIA, Germany)	✓ Vertical Group☐ Horizontal Committee✓ Standing Committee	e	
Question related to : Direct	ctive 89/686/EEC	EN/prEN : 352-11:2002	Other :	
Annex : Annex II	Article :	Clause :	- 11	
Key words : Communication ear muffs receiving and transmitting wireless				
Question :				
How shall these HPD's be	e tested and assessed?			
Recommended solution :				
		31, Revision 02, was included in the draft sta		
Sent for information to :	☐ members of the VG ☐ other(s	s) VG	(4)	



CNB/P/04.032
Revision 05
Language : E

* * *	RECOMMENDA		
Number of pages : 1	Date : 21/04/2006	Approval by :	Approved on :
Origin : VG4 Hearing Protect			
Question related to :		EN/prEN : 352-7:2002 (partly)	Other:
Annex :	Article :	Clause :	
Key words :		11	
Ear-plugs with audio commun	nication		
Question : How shall ear plug	s with audio communication be tested a	and assessed?	
Recommended solution: i) An IEC-711 coupler with (Recent recommendation of the solution) is a solution of the		ollowing the procedures given for hearing	aids in the relevant standards
Sent for information to :	1 members of the VG □ other(s) VG	6 □ HC (2) □ TC 159 □ SC (4	4)



CNB/P/04.034
Revision 03
Language : E

RECOMMENDA	RECOMMENDATION FOR USE				
Number of pages : 1 Date : 21/04/2006	Approval by :	Approved on :			
Origin : VG4 Hearing Protection (submitted by TNO)	✓ Vertical Group ☐ Horizontal Committee ✓ Standing Committee				
Question related to :	EN/prEN : EN 352-4 (2001)	Other:			
Annex: Article:	Clause : B.3 (Annex B)				
Key words : MIRE-technique, interpolation, extrapolation, criterion level, level-dependent ear muffs					
Question: For 3 types of external noises (high frequency orientated noise, medium frequency noise and low frequency orientated noise) at stepwise increased (external) levels the level under the level-dependent ear muff is obtained for 16 ears (8 test subjects) according to EN 352-4 using MIRE-technique (MIRE: Microphone in real ear, s. ISO DIS 11904-1:2000). The external level which corresponds to the level of 85 dB(A) under the hearing protector shall be determined. This external level (minus one standard deviation - as specified in RfU CNB/P/04.014) is called the criterion level.					
1. Because of the level steps and individual characteristics of the terminate level as recommended by EN 352-4. But this graphical interpolation in EN 352-4 to find the external A-weighted SPL?					
2. Because the H-noise specified in ISO 4869-2 shows an L_C - L_A = -2 dB and the L-noise an L_C - L_A = 10 dB but the H orientated noise of EN 352-4 shows (because of technical reasons) an L_C - L_A =-1.2 dB and the L-noise an L_C - L_A = 6 dB an extrapolation is necessary. What procedure to follow in calculating criterion levels for H-value of -2 dB and L-value of 10 dB? The phrase "assuming a linear relationship" in EN 352-4 is very fuzzy. If the external SPLs for H-noise with L_C - L_A =-1,2 dB, M-noise with L_C - L_A =2 dB, and L-noise with L_C - L_A =-6 dB are not on a straight line (as will almost always be the case), extrapolation may lead to large errors (particularly for L-noise).					
3. In finding the external A-weighted SPL (X) at which the mean A-weighted equivalent diffuse field SPL equals 85 dBA (Y), what procedure to follow?					
i. Find X _i belonging to Y for each of 16 cups and calculate mean criterion level (X ₁ +X ₂ ++X ₁₆)/16. Note that X _i will nearly always be a calculated (interpolated) value, not measured directly.					
ii. Calculate the mean Y-curve for all 16 cups. Given fixed measurement values for X (regular 5-dB intervals), the mean criterion level can be obtained by interpolation.					
4. The MIRE-technique (MIRE: Microphone in real ear) proposed for use of testing level dependent ear-muffs by EN 352-4 is described in DIS 11904-1:2000. The sound level under hearing protector shall be measured when the test subject is exposed to an external sound field - according to EN 352-4. EN 352-4 reffers to ISO DIS 11904-1:2000.					
Is it really necessary to have long measurement periods as described in ISO/CD 11904-1, clause 8.1? For a one-third-octave frequency band with midband frequency of 100 Hz, this results in a period of 50 s for each measurement.					
Solution: 1. Use a point-to-point linear interpolation for each ear to a 2. Report the criterion levels as determined by measurements for (Lextrapolation the criterion level for -2 dB and +10 dB, respectively. 3. Take procedure i. 4. Use a measurement period of 20 s for a wideband sound (100 Hz)	$_{ m C-L_A}$)-values of –1,2 dB for H and +6 dB fo	or L, and determine by linear			
Sent for information to : ☐ members of the VG ☐ other(s) VG ☐ HC (2) ☐ TC 159 ☐ SC (4) ☐ other (5)					



CNB/P/04.035
Revision 04
Language · F

* * *	RECOMMENDA ^T		
Number of pages : 1	Date : 21/04/2006	Approval by :	Approved on :
Origin : VG4 Hearing Prof	rection (submitted by INRS, France)	✓ Vertical Group ☐ Horizontal Committee ✓ Standing Committee	
Question related to :		EN/prEN: 13819-2:2002	Other : ISO 4869-1
Annex :	Article :	Clause : 4.2.2 and 4.3.2	!
•	rberation time, level-dependent hearing pro		· .
technique (MIRE: microph the test site under 1,6 s in EN 13819-2 : 2001, requir	el-dependent ear muffs according to EN 35 none in real ear) shall be used. When apply a each of the test bands used as required by res: pparatus, including test sites and sound fie	ing MIRE technique, is it necessary to limy 24869-1?	it the reverberation time of
Solution :			
	eration time of the test site with the require vels (particularly for the L noise) seems to l		
Therefor the sound field u	sed shall comply with the requirements of I	SO 4869-1 except clause 3.11 reverbera	tion time.
Sent for information to :	☐ members of the VG ☐ other(s) VG	☐ HC (2) ☐ TC 159 ☐ SC (4)



CNB/P/04.036
Revision 03
Language : E

* * *	RECOMMENDATION FOR USE		
Number of pages : 1	r of pages : 1 Date : 21/04/2006 Approval by : VG4 Hearing Protection (submitted by BIA, Germany) □ Vertical Group		Approved on :
Origin: VG4 Hearing Prote			
Question related to :		EN/prEN : En 13819-2:2002	Other:
Annex :	Article :	Clause : 4.1.4	l
Key words : insertion loss,	asymmetric design, electronic ear muffs		
Question :		ne test specimen and to test the effect of c	
separate between left and attenuation what is intende restored communication sig deviation shall not be great	right cups. For specific purposes manufaced by the manufacturer, e.g. left cup with k gnals. The mean is taken from all cups an ter than 4,0 dB in four or more adjacent or	nditioned specimen are tested together. Preturers produce electronic ear muffs which ower sound attenuation and right cup with ad the criterion is given in EN 352-1, -3 as ne.third octave bands, and not greater tha ioned special ear muff although the produce.	show different sound higher attenuation and follows: The standard n 7,0 dB in any individual
Solution :			
case the manufacturer has		be applied separately to left and right cup ser information specifying the special purp ical design of the hearing protector.	
Sent for information to :	☐ members of the VG ☐ other(s) VG	G □ HC (2) □ TC 159 □ SC (4))



CNB/P/04.037
Revision 04
Language : E

* * *	RECOMMENDATION FOR USE		
Number of pages : 1	Date : 21/04/2006 Approval by :		Approved on :
Origin : VG4 Hearing Prote	ection	✓ Vertical Group ☐ Horizontal Committee ✓ Standing Committee	
Question related to :		EN/prEN: 13819-1:2002	Other:
Annex :	Article :	Clause : 5.2.3	.I
	designation, flanged ear-plugs		
	ign a nominal size designation to each ear anal are assessed using a gauge comprisir ne circular hole?		
Solution :			
At least that flange showin	g the smallest and that one with the larges	it diameter shall seal one circular hole.	
Sent for information to :	☐ members of the VG ☐ other(s) VG	3 □ HC (2) □ TC 159 □ SC (4	other (5)



CNB/P/04.038
Revision 06
Language : F

Number of pages : 1	Date : 14/10/04			Арр	roval by :		Approved on :	
Origin: VG 4 Hearing Prote	g Protection (submitted by BIA, Germany)		X	Vertical Group		2013/10/14		
				X	Horizontal Committee			
				X	Standing Committee		2015/09/19	
Question related to :			EN/prEN :	FN 3	52-4·2001	Othe	r : EN 352-1:2002,	
Quodion foldied to .				EN 352-7:2002		EN 3	352-2:2002,	
						EN 3	352-3:2002	
Annex :	Article :		Clause : 4	.3.2 (i	in both standards)	•		
Key words : level depende	nt ear-muff/-plugs, minim	um criterion level	S					
Question :								
Existing standards of EN 3								
(as designed) with the leve passive mode but exposes								
dependent mode this heari					21 10 101 10 00 01 00 uB(1.1)		oporatou iii iovoi	
How shall these products b	e dealt with?							
Recommended solution :								
All products shall at least h very high amplification and			M and L) of	85 dl	B(A). This eliminates ext	reme	products that have a	
In addition to that requirement there are minimum criterion levels derived from the minimum attenuation values for passive HPDs from EN 352-1 to -3 (H = 12 dB, M = 11 dB, L = 9 dB):								
Minimum criterion level H: 97 dB(A)								
Minimum criterion level M: 96 dB(A)								
Minimum criterion level L: 9	94 dB(A)							
(The determination of criterion levels is specified in EN 352-4:2001+A1:2005.)								
These requirements shall only be applied for products that are aimed at continuous noise situations. For products that are specifically defined for impulse noise (e.g. for hunters) it is not necessary to meet these criteria.								
The criterion levels shall no noise levels.	evertheless be mentioned	I in the user inform	mation with	a wa	rning that the product is	not su	ited for high continuous	
TIOISC ICVOIS.								
Sent for information to :	members of the VG	□ other(s) VG						
⊠ HC (2)	⊠ TC 159	SC (4)	□ othe	er (5)				
<u> </u>	<u> </u>	<u> </u>		(-)				



CNB/P/04.039
Revision 05
Language: E

Number of pages: 1	Date: 15.08.2008		Approval by :	Approved on :
Number of pages: 1			Approval by :	Approved on :
Origin : Vertical Group 4 H	earing Protection' (submitted by INRS, Fr	ance)	✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.17.09.2004 03.12.2005 15.07.2008
Question related to: Directiv	ve 89/686/EEC	EN/prEN:		Other:
Annex:	Article:	Clause:		
Key words:				
Ear plugs, special use, risk	in water			
Question:				
	I to protect hearing against the harmful eff swimmers (particularly in swimming pools			water in this kind of place.
The question is:	of the state of the test of th			
Are ear plugs used in swim	ming pools kind of PPE?			
Solution:				
	sation of Personal Protective Equipment (
, •	ture, water" fall under category 0. A certifi certify the product in question against the	•		•
	on of the middle ear against water while s			
Sent for information to:	members of the VG other(s) V	/G ⊠ H	IC (2) X TC (3) X S	SC (4)
	3): 159		(5):	(c) (c)
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CNB/P/04.040
Revision 02
Language · F

* * *	RECOMMENDATION FOR USE		
Number of pages : 1	Date: 15/03/04	Date: 15/03/04 Approval by:	
Origin : VG 4 Hearing Prof	rection (submitted by INRS, France)	✓ Vertical Group	24/10/2011
Question related to : Direct	tive 89/686/EEC	EN/prEN : 352-7:2002	Other:
Annex:	Article :	Clause : 4.1.4	"
Key words : ear plugs, non-passive ear-plugs, special use, impulse noise			
Question : In which way shall the peabe tested?	k attenuation against very high level peak	noise of level-dependent ear-plugs witho	out electronic sound restoration
Recommended solution :			
	does not cover the assessment of protection	, , , ,	• ,
data characterising the eq compare the exposure und	tion on a suitable ear simulator, using an a uivalent external impulse sound field may l der an ear plug to peak limit values specifie	be not straight forward. Only those conve ed in the EU Directive 2003/10/EC.	erted data can be used to
Sent for information to :		VG ☑ HC (2) ☑ TC 159 ☑ S	C (4)



CNB/P/04.041
Revision 01
Language : E

* * *	RECOMMENDATION FOR USE		
Number of pages : 1 Origin : VG 4 Hearing Prote	ber of pages : 1 Date : 2004/09/16 Approval by : ✓ Vertical Group ✓ Horizontal Committee ✓ Standing Committee		24/10/2011
Question related to : 89/686 Annex : II	6/EEC Article : 3.5	EN/prEN : EN 352-6:2002 Clause : (Annex B)	Other:
Key words : Calcula		vel, ear muffs with electrical aud	dio input
one standard deviati equal to 82 dB(A) .	on of the A-weighted diffuse-fi	e electrical input level for which eld related sound pressure leve ed. How should the mean elec	el of all sixteen ears is
applied: Determine, by interp diffuse-field related s	e calculation of the criterion level colation where necessary, the cound pressure level under the	vels in EN 352-4 the following pelectrical input level (X _i) for white ear-muff is equal to 82 dB for 1+X ₂ ++X ₁₆)/16 and the stand	ch the A-weighted each of the 16 ears
Sent for information to :	☑ members of the VG □ other(s) VG	G ☑ HC (2) ☑ TC 159 ☑ SC (4	other (5)



CNB/P/04	1.042
Revision	02
Language	- F

* * *	RECOMMENDATION FOR USE			
Number of pages : 1	Date: 2005/09/09 Approval by:		Approved on :	
Origin : VG4 Hearing Protection (submitted by BGIA, Germany)		Z	Horizontal Committee	
Question related to : 89/68	6/EEC	EN/prEN : EN	l 352-2 (2002)	Other:
Annex : II	Article : 1.3.1	Clause :		
Key words : Banded	ear plugs worn under the chin,	test dimer	nsion for sizing	
Question: EN 352-2 (2002) specifies only dimensions for "over the head and under the chin" and "behind the head". How can banded ear plugs be tested in case they are especially designed for only "under the chin"? For "under the chin" smaller heights may be appropriate. Which heights shall be required as minimum?				
Use the heads specheight (horizontal dishead A (width 125 mead B (width 145 mead C (width 155 mead A represents dimensions relevant in 1989 (Handbuch Czweite, überarbeitet	cation for "under the chin" band ified in EN 13819-1 picture 11 a	and add the (chin) n) for 5 perce e of males. nen Konstru usgegeben	e following test dime entile of females and Anthropometric data uktionsrichtlinien, Ba	head C represents a used were collected and 3; Stand: 1989,
Sent for information to :	☑members of the VG □ other(s) VG	☑ HC (2)	☑ TC 159 ☑ SC (4)	□ other (5)



CNB/P/04.043
Revision 01
Language : E

* * *	RECOMMENDATION FOR COL		
Number of pages : 1	Date : 2005/11/11	Approval by :	Approved on :
Origin: VG4 Hearing Prote	ection (submitted by BGIA, Germany)	✓ Vertical Group	06/01/2006
		✓ Horizontal Committee .	24/10/2011
		☑ Standing Committee	15/05/2012
Question related to : 89/68	36/EEC	EN/prEN : EN 352-2 (2002)	Other:
Annex : II	Article: 2.9	Clause : 6.2	
Key words : Banded	d ear plugs, exchange of plugs	of banded ear plugs	
Question :			
	require a description on exchan	ige of plugs of handed ear plug	us to be included within
	as EN 352-1 does for exchange		33 to be included within
Recommended solu	ution:		
	hall add a description on how to		ar plugs to the wearer
information in case	he provides exchange sets for t	hat banded ear plugs.	
Sent for information to :	☑members of the VG □ other(s) VG	☑ HC (2) ☑ TC 159 ☑ SC (4	l)



CNB/P/04.044
Revision 01 Language : E
Language : E

* * *	RECOMMENDATION FOR USE		
Number of pages : 1 Origin : VG4 Hearing Prote	Date : 2005/11/11 ction (submitted by BGIA, Germany)	Approval by : Vertical Group	24/40/2011
	,	Horizontal Committee Standing Committee	15/05/2012
Question related to : 89/686	6/EEC	EN/prEN : EN 352-6 (2002)	Other:
Annex : II	Article : 1.2	Clause : 4.2	II
Key words : ear muf	fs with electrical audio input, ele	ectrical safety	
muff shall meet the	lectrical audio input EN 352-6, electrical safety and EMC require required and appropriate to c	rements appropriate to this cla	ss of equipment."
15 in London was: "	B52-6, clause 4.2 agreed on wit The electrical circuit of the ear r A declaration written by the ma	nuff shall meet the appropriate	e electrical safety and
Sent for information to :	☑members of the VG □ other(s) VG	☑ HC (2) ☑ TC 159 ☑ SC (4	c)



CNB/P/04.045	
Revision 01	
Language · E	

* * *	RECOMMENDA		
Number of pages : 1	Date : 2007/02/01	Approval by :	Approved on :
Origin : VG4 Hearing Prot	ection (submitted by BGIA)	✓ Vertical Group ✓ Horizontal Committee ✓ Standing Committee	24/10/2011
Question related to : 89/6	86/EEC	EN/prEN : EN 352-2 (2002)	Other:
Annex : II	Article: 3.5	Clause :	l
Key words : Additional cho	eck of protective function, custom moulded	ear plugs, leakage	
Question :			
on this imprint the final PF which results in a significa requirement of the 89/686	moulded ear plugs individual imprints of the PE is produced by the manufacturer in his pant underprotection as studies showed. How PEC directive be tested?	remises. About 5 % of custom moulded e	ar plugs show a leakage
preparation of the imprint canal - e.g. by decreasing significant and unknown re do using foam plugs. To guser's ear canal by the ma microphone. During EC-ty	ere leakage was found, can only by decrea (duration is several minutes) can not comp of ear canal diameter – the imprint will be eduction of the protective function. The use quarantee the protective function as specific anufacturer. There are techniques available upe examination such a test has to be applicaturer. The conformity of the description has	letely be avoided and such a tension can come too small. The final product will show or can not compensate the leakage by e.g. and the only solution is to perform a final characteristic using e.g. little overpressure or loudspeaded by the manufacturer as well as the test	change the shape of the ear w a leakage and in turn a . deeper insertion as he can neck of the function at the akers and a probe t equipment has to be
Sent for information to :	☑ members of the VG □ other(s) VG	☑ HC (2) ☑ TC 159 ☑ SC (4)



CNB/P/04.049
Revision 03
Languago · E

				Language . E	
* * *	PROPOSAL FO	OR ENQUIRY			
Number of pages : 1	Date: 2013/03/04	А	pproval by :	Approved on :	
Origin: VG4 Hearing Prot	ection (submitted by IFA)		☑ Vertical Group	2014/01/17	
			⊠ Horizontal Committee 2014/11/03		
				2015/09/19	
Question related to : 89/686/EEC EN/prEN : EN 352-6:2002 Other :					
Annex : II	Article : 3.5	Clause :		II	
Key words : Ear muffs wit	h communication facilities				
Question:					
	nnique to determine the dependence betwe maximum level to be reached is 85 dB(A)				
may be necessary during	work. In order to be able to assess the total	l sound expos			
	and if it possible to extrapolate the MIRE da				
How can the necessary a	dditional data be determined and communi	cated in the us	ser information?		
Recommended solution:					
	oles – eight cups) shall be measured with s roltage that resulted in a level of 70 dB(A) v				
	e voltage shall be increased in 5 dB steps u				
saturation of the signal (or	r up to the maximum input voltage).			, ,	
	Il typically not be identical to the MIRE resu p using the following procedure:	Its the curve h	as to be shifted to match th	ne MIRE results for the range	
 Use the calculation procedure for the criterion voltage (according to RfU 04.041 (latest published online version)) to determine from the MIRE data the input voltage that results in an SPL of 85 dB(A) (diffuse-field corrected). 					
 For that purpose interpolate for each of the 16 ears the voltage value that results in 85 dB(A). Mean minus standard deviation for the 16 values gives the required voltage, U₈₅. 					
- Measure all four	r samples (eight data sets) on the ATF and	calculate the	mean over the eight values	for each input voltage.	
- The mean of the values measured on the ATF will probably not contain a data point with the voltage value of U ₈₅ , therefore determine this point by interpolation.					
- Determine the difference between MIRE and ATF values at U ₈₅ .					
- Shift the whole	ATF mean curve by this offset.				
The combined data from MIRE and ATF shall be presented in the user information as a table (dB SPL vs. U in mV). If a graphical interpolation is wished for the data have to be plotted with a logarithmically spaced voltage axis. To display the whole range of input voltages apply RfU 04.041 (latest published online version) to the MIRE data to get the corresponding voltage values for 70, 75 and 80					
	in (latest published online version) to the Mi imum allowed input voltage is to be stated i			values ioi 10, 15 allu 00	
0.16.16					
Sent for information to :		⊠ HC (2)) ⊠ TC 159 ⊠ SC (4	·) □ other (5)	



CNB/P/04.050
Revision 02
Language : E

	REGOMMENDA		· -	
Number of pages : 1	Date : 2013/03/04	A	Approval by :	Approved on :
Origin : VG4 Hearing Protection			☑ Vertical Group	2013/10/14
				2014/11/03
			Standing Committee	2015/09/19
Question related to : 89/686	6/EEC	EN/prEN : E	N 352-5:2002 + A1:2005	Other:
Annex : II	Article : 3.5	Clause : 6.1	c) and Annex B	I
Key words : Hearing protect	tors with active noise control			
Question :				
	specify the procedure to calculate the tota ired to contain the total attenuation, only t			the ANR HPD. Moreover the
How shall the total sound at	ttenuation be calculated and what attenua	ation values sh	nall be included in the user i	nformation?
Recommended solution:	ADVO SENDE	-4-1 /451		
	assumed protection value (APV) of the to rding to EN 352-5, Annex B and the pass			
according to chapter 5.2/an 2. Interpolate the subjective 63 Hz and 8 kHz for mean a 3. Add the mean values of t 4. Average the three one-th negative values, i.e. the res mean of the total attenuatio 5. Sum the standard deviati 6. Average the three standa highest value has the highe 7. Calculate the APV for each	REAT data (from 16 test subjects accorded and SD. Extrapolate the subjective data to the two contributions (active and passive) ird octave bands of total attenuation for o idual level under the HPD). The lowest at n in octave bands. on of passive and active attenuation quadrated deviation values for one octave band (st weight for the end result. This yields the ch octave band by subtracting the standa $APV_{tot} = \frac{1}{2} 1$	ding to EN 248 to 50 Hz and 10 to get the me one octave bar ttenuation has dratically for o (between 63 He e standard de	369-1:1992) linearly in one-to 0 kHz. an of the total attenuation for the total Artenuation for the highest weight for the end to the highest weight for the end to the form of the total attenuation of the total attenuation.	third octave bands between or each one-third octave band. Hz) energetically (using end result. This yields the een 50 Hz and 10 kHz. using positive values, i.e. the on in octave bands.
Content of the user informa	tion (6.1 c):			
The user information shall of the derived HML and SNR v	contain the mean, standard deviation and values.	APV between	63 Hz and 8 kHz for the to	lal attenuation together with
Sent for information to :	⊠ members of the VG □ other(s) VG	⊠ HC (2) 図 TC 159 図 SC (4)



CNB/P/04.05
Revision 01
Language · F

* * *	RECOMMENDA		
Number of pages : 1	Date : 2013/10/14	Approval by :	Approved on :
Origin : IFA		✓ Vertical Group	
		✓ Horizontal Committee ✓ Chanding Committee	
			2015/09/19
Question related to: 89/68	36/EEC	EN/prEN : EN 13819-2:2002	Other:
Annex : II	Article: 3.5	Clause : 5.4	
Key words : Drop test for e	ear plugs		
Question:	d ha waad fan tha duan taat af aan niwaa aa		
How many samples snoul	d be used for the drop test of ear plugs acc	cording to EN 13819-2, clause 5.4?	
1			
Recommended solution:			
	to be used for the REAT testing with 16 te	est subjects should be used for the drop	test
r in campion that are going	to be deed for the NEXT today with 10 to	ot outsjoote official to dood for the drop t	toot.
Sent for information to :	⊠members of the VG □ other(s) VG	☑ HC (2) ☑ TC 159 ☑ SC (4)



CNB/P/04.052
Revision 01
Language : E

* * *	RECOMMENDA	HON I ON OOL		
Number of pages : 1	Date : 2013/10/14	Appro	oval by :	Approved on :
Origin : IFA		X \	Vertical Group	2014/01/17
			 Horizontal Committee	
		⊠ 5	Standing Committee	2015/09/19
Question related to : 89/68	36/EEC	EN/prEN : EN 35	2-6:2002	Other:
Annex : II	Article: 3.5	Clause : 6		
Key words : Hearing prote	ctors for safety-related communication, us	er information		
Question :				
How can it be ensured that purposes?	t hearing protectors for safety-related com	munication (that de	o not contain a limiter)	are not used for entertainment
puiposes?				
Recommended solution:				
	ne user information should be included that	reads:		
=	used for entertainment since the output lev		the necessary innocuo	us level."
,, ,,,,,,	Ψ		, , , , , , , , , , , , , , , , , , , ,	
Sent for information to :	⊠members of the VG □ other(s) VG	⊠ HC (2) I	⊠ TC 159 ⊠ SC (4)

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 5 "Protective Clothing, Hand and Arm Protection" of the European Coordination of Notified Bodies in the field of PPE

Number of RfU	Revision	Reference - Keywords	Approved by Vertical Group 5	Approved by PPE Expert Group
Contamin 421	ation EN	Protective gloves against ionizing radiation and radioactive - EN 421, clause 5.2: gloves; radioactive; requirements - EN 421, clause 6.3.4: water vapour permeability	07/02/07	30/04/09
EN 469		Requirements and test methods for protective clothing for fire fighting - Clause 1: certification, separate clothing items - Clause 4.6: closure systems - Clause 4.9: neck protection - Clause 5.2: pre-treatments - Clause 5.3 and 6.1: flame spread of materials - Clause 5.4: flammability, number of washing cycles, durability - Clause 6.1: accessories (threads, embroideries, seams) - Clause 6.1.6: hardware - Clause 6.4 and 7.5: radiant heat, residual strength - Clause 6.5: heat resistance of materials - Clause 6.5: testing of braces - Clause 7.4: dimensional change, knitted fabrics - Clause 7.4.2: performance marking - Clause 7.5: liquid penetration	24/08/07	30/04/09
EN 470-1		General requirements for protective clothing for use in welding and allied processes - Clause 1: combination of items - Clause 4.1: molten metal, accumulation in pleats - Clause 4.1: design, electrical conduction - Clause 4.3: design, pockets - Clause 5.1 and 5.3: breaking strength, textile, leather - Clause 5.2: tear resistance - Clause 5.3: dimensional change, knitted fabrics - Clause 5.3: dimensional changes, leather - Clause 5.5: Chromium (VI) content - Clause 6.1: accessories (threads, embroideries, ,seams) - Clause 6.2: high visibility garments for welding - Clause 6.2: PPE; sticking of molten metal	07/02/07	30/04/09
EN 531		Protective clothing for industrial workers exposed to heat - Categorisation - Socks - Clause 1: undergarments, certification - Clause 1: neck protector, certification - Clause 5.2: dimensional change, knitted fabrics - Clause 6: performance levels, test method - Clause 6.1: outer material, clothing assembly - Clause 6.2: accessories (threads, embroideries, seams) - Clause 6.2: flammability, washing, durability - Clause 6.5 and 6.6: large metal molten splashes, ignition - Clause 7: quick release fastening - Clause 7: pockets, pocket closures - Clause 7: molten metal, accumulation in pleats-Clause 7: zippers	18/08/06	30/04/09
EN 532-5 ISO 1411		Protective clothing against heat and flame - EN 533, clause1: materials, CE type examination - EN 533, clause 4: other garment features (threads, embroideries, seams) - EN 533, clause 4.1: materials next to the skin, incompatible properties - EN 532: flammability index, hole formation - prEN ISO 14166, clause 6.2: mechanical testing of knitted materials	24/08/03	30/04/09

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 5 "Protective Clothing, Hand and Arm Protection" of the European Coordination of Notified Bodies in the field of PPE

Electrostatic	Electrostatic properties - Clause 4: attachments	07/02/07	30/04/09
charges EN 1149	- Clause 4 and 5: requirements, core conductor		
series	fibres - Clause 4.1: non homogeneous materials,		
	resistivity - Clause 4.2: skin contact,		
	incompatible properties - Clause 4.2: skin		
	contact, earthing - prEN 1149-5: ATEX		
	situations, fire behaviour -		
	prEN 1149-5: requirements, materials and		
	design – prEN 1149-5: requirements, design -		
	prEN 1149-5: EC type examination certificate -		
	General: durability, washing		
Gloves	Barbecue gloves (EN 407) - Fire fighters' gloves	24/08/07	30/04/09
	(EN 659, cl. 3) - Fire fighters' gloves, marking		
	(EN 659) - Gloves, chemical protection (EN 374)		
	- Gloves, entanglement		
	moving parts (no standard available) - Gloves,		
	length (EN 374-420) - Gloves, length (EN 420) -		
	Gloves, natural rubber, protein content (EN 420)		
	- Gloves; protection from contact heat (EN 407) -		
	Marking, reference to general		
	standards (EN 420) - Mechanical testing (EN		
	388) - Protective clothing and gloves, pictogram		
	ionising radiation (EN 420) - Protective devices		
	against cold and heat (no		
	specific standard)		
High visibility EN	Clause 4.1: classification, combination of items –	24/08/07	30/04/09
471 - 1150 - 13356	Clause 4.1: classification, Jacket with removable		
	sleeves – Clause 4.1: classification, minimum		
	area - Clause 4.1: classification, use of smallest		
	size - Clause 4.1: classification, harnesses -		
	Clause 4.1 and 5.1: classification, perforated		
	materials -Clause 4.1: classification, combined		
	performance materials – Clause 4.1 and 6.1:		
	classification, markings on reflective trimmings -		
	Clause 4.2: design, items not covered by the		
	enumeration in EN 471 - Clause 4.2: design,		
	retroreflective bands, extra trimming - Clause		
	4.2: design, reflective bands, arrangement -		
	Clause 4.2: design, reflective bands, patterns -		
	Clause 4.2: design, background material,		
	minimum area (legs) - Clause 4.2.2: reflective		
	bands, width and homogeneity - Clause 4.2.3:		
	bands encircling the torso - Clause 5.1:		
	luminance factor, washing - Clause 5.1: colour		
	test, orientation - Clause 5.1 and 6.1:		
	background fabric, logos - Clause 5.3: colour		
	fastness - Clause 5.3.3: marking, bleaching -		
	Clause 5.6.3: background material, wvp-index -		
	Clause 6.2: washing, maximum number of		
	cycles - Clause 8: marking, number of washing		
	cycles – Clause 8: marking, rombined		
	performance - High visibility accessories (EN		
	13356) - High visibility accessories, cape for		
	horse riders (EN 13356) - High visibility		
	accessories, minimum area (EN 13356)		
Chemical (includes	EN 1073-2 clause 4.2: radioactive	07/02/07	30/04/09
biological and	contamination, puncture resistance - EN 13034:	31,02,01	33/3 1/33
radioactive risks)	additional features - EN 13034 clause 4.1:		
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Vertical Recommendation for Use sheets (RfUs) of Vertical Group 5 "Protective Clothing, Hand and Arm Protection" of the European Coordination of Notified Bodies in the field of PPE

repellency, penetration - EN 13034 clause 4.2: chemical penetration, seams etc EN 13034, EN 468: low level spray test - EN 13982-1 clause 6e: instructions for use; test results - EN 14126 clause 4.1.4: infective agents - EN 368 clause 1: certification, use of EN 368 - EN 368 clause 5.5: volatile liquids penetration - EN 369	chemical penetration, seams etc EN 13034, EN 468: low level spray test - EN 13982-1 clause 6e: instructions for use; test results - EN 14126 clause 4.1.4: infective agents - EN 368 clause 1: certification, use of EN 368 - EN 368 clause 5.5: volatille liquids penetration - EN 369 clause 5.2 - permeation, collecting medium - EN 463 clause 5.2 - permeation, collecting medium - EN 463 clause 5.3: jet test points - EN 466 clause 6.3: jet test - EN 467: partial body protection - General: abrasion, flex cracking, breakthrough - General: abrasion, flex cracking, pressure pot - General: attached gloves and boots - General: cold protection combined with chemical protection - General: cold protection combined with chemical protection - General: test methods General Abrasion testing (EN 530) - Abrasive blasting, categorization of PPE (EN ISO 14877) - Combination of clothing items (EN 340) - Comfort, practical performance testing (EN 340) - Cool environments (EN 14058) - Dimensional Change (EN 340) - Electric arc (based on CLC/TS 50354) - Fire hoods, practical performance test (EN 13911) - Identification of materials (all clothing standards) - Innocuousness, plastic clothing (EN 340) - Innocuousness, plastic clothing (EN 340) - Innocuousness, azo colourants (EN 340) -				
463 clause 5: test liquid - EN 463 clause 8.2: test points - EN 466 clause 6.3: jet test - EN 467: partial body protection - General: abrasion, flex cracking, breakthrough - General: abrasion, flex cracking, pressure pot - General: attached gloves and boots - General: cleaning, preconditioning for testing - General: cold protection combined with chemical protection - General: instructions for use - General: limited protection - General: pockets - General: limited protection - General: test methods Abrasion testing (EN 530) - Abrasive blasting, categorization of PPE (EN ISO 14877) - Combination of clothing items (EN 340) - Comfort, practical performance testing (EN 340) - Cool environments (EN 14058) - Dimensional Change (EN 340) - Dimensional change, knitted materials (EN 340) - Electric arc (based on CLC/TS 50354) - Fire hoods, practical performance test (EN 13911) - Identification of materials (all clothing standards) - Innocuousness, plastic clothing (EN 340) - Innocuousness, azo colourants (EN 340) - Marking, reference to general standards (EN 333) - Paint booth clothing (no standard) - Protective clothing and gloves, pictogram ionising radiation (EN 420- 340) - Reference to standards (EN 343) - Test report, reference to standards (EN 343) - Test report, reference to directive (in the absence of a standard) - Various performance levels in one garment (several standards) - Water vapour	standards (EN 340) - Marking, compliance with several standards (EN 533) - Paint booth clothing (no standard) - Protective clothing and gloves, pictogram ionising radiation (EN 420-340) - Reference to standards (EN 343) – Test report, reference to directive (in the absence of a standard) - Various performance levels in one garment (several standards) - Water	General	chemical penetration, seams etc EN 13034, EN 468: low level spray test - EN 13982-1 clause 6e: instructions for use; test results - EN 14126 clause 4.1.4: infective agents - EN 368 clause 1: certification, use of EN 368 - EN 368 clause 5.5: volatile liquids penetration - EN 369 clause 5.2 - permeation, collecting medium - EN 463 clause 5: test liquid - EN 463 clause 8.2: test points - EN 466 clause 6.3: jet test - EN 467: partial body protection - General: abrasion, flex cracking, breakthrough - General: attached gloves and boots - General: cleaning, preconditioning for testing - General: cold protection combined with chemical protection - General: instructions for use - General: limited protection - General: test methods Abrasion testing (EN 530) - Abrasive blasting, categorization of PPE (EN ISO 14877) - Combination of clothing items (EN 340) - Confort, practical performance testing (EN 340) - Cool environments (EN 14058) - Dimensional Change (EN 340) - Dimensional change, knitted materials (EN 340) - Electric arc (based on CLC/TS 50354) - Fire hoods, practical performance test (EN 13911) - Identification of materials (all clothing standards) - Innocuousness, plastic clothing (EN 340) - Marking, reference to general standards (EN 340) - Marking, compliance with several standards (EN 340) - Marking, compliance with several standards (EN 340) - Potective clothing and gloves, pictogram ionising radiation (EN 420-340) - Reference to standards (EN 343) - Test report, reference to standards (EN 343) - Test report, reference to standards (EN 343) - Water penetration, rainwear (EN 343) - Water vapour resistance (all clothing standards) - Wildland	24/08/07	30/04/09

Note: Recommendation for Use sheets which deal with withdrawn and / or superseded standards and which no longer apply to new certifications are published as reference for previous files.

Status: December 2012

3



CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN 421

Rev.: 2007-02-07

Approval by:

Approved on:

Horizontal Committee Standing Committee 19.11.2007 30.04.2009

This Recommendation for Use sheet contains questions and answers discussed and approved at VG 5 meetings concerning issues addressed in the following standards:

. EN 421:1994 Protective gloves against ionizing radiation and radioactive contamination

Standard and clause	Key words	Question	Proposed	solution		Comments
421, 5.2	Gloves; radioactive;	It is not clear which properties are compulsory and which are optional in both cases (radiation or contamination).	Properties shall be checked as follows: Property	ows: Ionising	Radioactive	
	requirements	both cases (radiation of contamination).	Troperty	radiation	contamination	
			5.1 Lead equivalent thickness	mandatory	not mandatory	
			5.2 Integrity	mandatory	mandatory	
			5.3 Water vapour permeab. (1)	optional	optional	
			5.4 Ozone influence (2)	optional	optional	
			5.5 Mechanical strength	mandatory	mandatory	
			5.6 Chemical	optional	optional	
			5.7 Specific requirements	optional	optional	
			(1): only required for work in contatmosphere (2): as the mechanisms of action of are different, there is no obvious conspecific studies should be undertaken similar.	f ozone and io orrelation of th	nising radiation neir influence.	

421, 6.3.4	Water vapour permeability		In order to harmonize EN 420 and EN 421 it is proposed to delete z and to use only the absolute value for the material under test. $\frac{240 * X}{A * y}$	
		The thickness z should be in the upper part of the equation.	~	



CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN 469

Rev: 2007-08-24

Approval by:

Approved on:

Horizontal Committee

19.11.2007

Standing Committee 30.04.2009

This Recommendation for Use sheet contains questions and answers discussed and approved in VG 5 meetings concerning issues addressed by the following standards:

. EN 469:2005 Protective clothing for firefighters - Performance requirements for protective clothing for firefighting

Clause	Key words	Question	Proposed solution	Comment
1	Certification, separate clothing items	Is it possible to certify trousers (without the corresponding jacket) and jackets (without the corresponding trousers), if it is specified in the informative leaflet and in the certificate that they have to be worn with a jacket (resp. trousers) that fulfils the requirements of EN 469?	This is possible. The wording of the informative leaflet shall be very clear and precise.	
4.6	Closure systems	A suit has lower insulation where the zipper is placed. How low may this be, before the garment is rejected?	The lower insulation value at the place of the zipper normally generally does not cause problems and hence has not to be considered.	
4.9	Neck protection	EN 469:1995, clause 4.9, states that "the clothing shall also protect the wearer's neck". Should the collar have the same minimum performance level as the tunic?	The manufacturer shall give advice in the informative leaflet that the level of protection in the collar is lower. The user shall take that situation into account.	Original discussion on EN 469:1995; remains valid for edition 2005

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5.2	Pre-treatments	§ 5.2. describes that the pre-treatment shall be	The following tes	sts (reference to EN 469:2005 clauses):	
		carried out by washing or dry cleaning according	6.1	Burning behaviour	
		to the manufacturer's instructions. How many	6.2	Thermal transfer - flame	
		washing cycles shall be carried out? The	6.3	Thermal transfer - radiation	
		standard is not clear on that point.	6.4	Remaining material strength after	
		•		thermal radiation	
		§ 6.8 and § 6.10 refer explicitly to 5.2. for pre-	6.9	Dimensional changes	
		treatment whereas § 5.2. already indicates which	6.11	Watertightness	
		tests should be carried out on pre-treated samples	6.12	Water vapour transfer resistance	
		and which tests on original.	shall be performe	ed after 5 care treatment cycles (washing	
		If the manufacturer indicates the article shall be	and drying) in acc	cordance with the manufacturer's	
		impregnated every 5 washing cycles, shall we	instructions.		
		test surface wetting after 4 cycles to check his	Reimpregnation	shall not be carried out, even if the	
		statement?	manufacturer's	instructions state that that the	
			impregnation is	no longer effective after 5 cycles. If	
			the manufacturer	stipulates a higher number of care	
			treatment cycles,	then the tests shall be performed after	
			the stated number	r of care treatment cycles.	
				•	
			The following tes	sts (reference to EN 469:2005 clauses):	
			6.8	Surface wetting	
			6.10	Resistance to penetration of liquid	
			chemical	ls	
			shall be performe	ed after the number of care treatment	
			cycles (washing a	and drying), for which the manufacturer	
			guarantees the im	pregnation, e.g. if the instructions state	
			"reimpregnation of	during the third care treatment cycle",	
			the tests shall be	performed after the second care	
			treatment cycle, i	.e. before reimpregnation.	
				s state "reimpregnation after each care	
			treatment cycle",	the tests shall be performed on new	
			items.		
				cturer shall give the following additional	
			instructions:		
				regnating agent to be used and	
			instructi	ons on how to carry out reimpregnation	
			- The num	nber of washing cycles during which the	
			reimpres	gnation remains effective.	
				rding the innocuousness of the	
				f firefighters' clothing	
			1 chilprogramon o	in onghors crouning	

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5.3, 6.1	Flame spread of materials	How should internal materials which are not part of the main assembly be tested to Clause 6.1 (Flame Spread). Examples include felt and foam used for padding. Are they included in the definition of 'component assembly' (clause 3.4).	Internal materials which are not part of the main assembly are part of a 'component assembly' (clause 3.4) and should be tested to Clause 6.1 (Flame Spread) as part of an assembly, as presented in the garment, with the test flame applied to the outer surface.	
5.4	Flammability, number of washing cycles, durability	A manufacturer claims e.g. 50 washing cycles for the flame retardancy of the fabric. Shall the fabric be washed 50 times and the flame spread tested before the certification?	Testing may be omitted if an audit by an independant third party of the fabric manufacturer's quality system proves the manufacturer monitors frequently and adequately the permanency of the fire retardancy. If this quality control and documentation is missing, appropriate numbers of washings shall be carried out before testing the flame spread.	
			However, it remains the Notified Body's decision whether or not this documentation is acceptable	
6.1	Accessories (threads, embroideries,	1. The standard does not require flammability testing of accessories such as closure systemes (e.g. zips), badges/logos or seams.	The accessories have to be tested in accordance with EN 532 if they are not properly covered	NOTE: see also EN 531 and EN 470
	seams)	2. Should the thread used for seams in protective clothing against heat and flame meet special requirements?	2. If the material of the threads used for seams is the same as the one used for clothing it isn't necessary to test. If not the sewing thread shall be tested.	
		3. When and under which conditions can embroideries be applied on the garment? Should	3. Embroideries in FR yarn should be accepted without restriction.	
		we limit the surface? Are there requirements that the yarn should fulfil?	Separate embroideries with non-FR yarn could be stitched to the garment afterwards. There is still a safe background.	
			For embroideries with non-FR material, a test according EN 532 should be carried out to check if the sample fulfils the criteria.	
		4. Should the seams of garments meet the same requirements for flammability as the main fabric?	4. Yes.	

6.1.6	Hardware	Clause 6.1.6 (testing and performance of "hardware") is not clear as to how to apply it. If an attempt to apply it as written is undertaken, the result is likely to be that it is not possible to certify typical firefighter clothing! 3.7 hardware non-fabric items used in protective clothing including those made of metal or plastic, e.g. fasteners, rank markings, buttons, zippers 4.7 Hardware Hardware Hardware enertrating the outer material shall not be exposed on the innermost surface of the component assembly. 6.1.6 If hardware is used in protective clothing, this shall be tested separately applying the flame to the outer surface of the hardware items, according to EN ISO 15025:2002. The hardware shall function after the test.	The wording of EN 469, clause 6.1.6 has proven to be impractible and therefore it is recommended that hardware be tested by applying the flame to the outer surface of the region of the clothing containing the hardware, e.g. a closure system. If the hardware is a closure system, it shall function after the test. If there is hardware inside the clothing that might be exposed to flame, for example within 10 cm of the hem of the jacket, this system shall be tested by exposing the item directly to the flame. The item shall not give molten or flaming debris and shall give an afterflame time of not more than 2 s.	Refers to EN 469:2005
6.4, 7.5	Radiant heat, residual strength	Is it acceptable to approve a textile according to EN 469 without testing the residual strength of material to radiant heat (EN 366 method A) (6.4) and penetration by liquid chemicals (EN 368), in particular to "white spirit" (7.5), i.e. are this basic requirements?	No. The product shall comply with <u>all</u> essential requirements [of EN 469 in order to be marked with EN 469].	
6.5	Heat resistance of materials	Are internal and external materials, which are not part of the main assembly, part of the 'clothing assembly', and should they be tested to Clause 6.5 (Heat Resistance). Examples include felt and foam used for padding, kneepad fabric, loops and webbing, and reinforcement fabric on hems.	These materials are part of the 'clothing assembly' and should be tested to Clause 6.5 (Heat Resistance)	
6.5	Testing of braces	Should trouser braces be tested to EN 469? If they should be tested, are they a 'material' (clause 3.11) or 'hardware' (clause 3.7).	Braces, which will not be exposed to flame in use, do not need to be tested to EN 469, 6.1. Braces should be tested to Clause 6.5 (Heat Resistance).	

7.4	Dimensional change, knitted fabrics	The 3% maximum change quoted in these specifications is neither appropriate nor accurately measurable for knitted fabrics.	The 3% figure is maintained as a rule. The notified body may judge as an expert opinion that the knitted material is stretchable enough not to affect the protective properties, and a higher shrinkage is acceptable. The real shrinkage should be mentioned in the information for use.	See also EN 531 and EN 470
7.4.2	Performance marking	When an EN 469:2005 garment meets Level 2 for Radiant and Convective Heat for all assemblies, should it be marked: Xf2 Xr2 Or can it be marked: X2	Both solutions may be used, but X2 may only be used if both Xf2 and Xr2 levels are obtained. According to WG 2 the notion Xf2Xr2 is to be preferred. WG 2 will be asked for clarification in the next amendment or revision of the standard.	
7.5	Liquid penetration	How can one perform an EN 368 test on retroreflective elements?	The liquid penetration test should not be performed on retroreflective material.	



CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN 470-1

Rev.: 2007-02-07

Approval by:

Horizontal Committee

Standing Committee

Approved on:

19.11.2007

30.04.2009

This Recommendation for Use sheet contains questions and answers discussed and approved at VG 5 meetings concerning issues addressed in the following standards:

. EN 470-1:1995 Protective clothing for use in welding and allied processes - Part 1: General requirements

Clause	Key words	Question	Proposed solution	Comment
1	Combination of items	A manufacturer produces a vest, sleeves that can be attached to the vest or can be used separately, apron and gaiters for welders, all made of the same material. Can he submit one technical file containing designs, etc for all of them?	It is possible to submit one technical file for all products. This depends on the intended use. If the manufacturer points out in the information leaflet that they must always be used all together, then one certification shall be carried out.	Will remain valid when EN ISO 11611 is approved – not addressed, but generally applicable to PPE clothing
		In such a case, should each garment, separately bear the CE marking	If not, several separate certifications are possible.	
4.1	Molten metal, accumulation in pleats	Can a garment have open pleats in the back? At the bottom of the pleat, a diagonally stitch could prevent entrapment.	Yes, if measures like diagonal stitches are provided to avoid molten metal to be entrapped.	Will remain valid when EN ISO 11611 is approved
		Is this sufficient and/or necessary?		
4.1	Design, electrical conduction	Shall metal fasteners be covered on both sides, the inner side and the outer side? In case a zipper is used: should it be severed when mode of metal to prevent.	 Covering the metal parts from one side (outside or inside) is sufficient. The outside of the zippers shall be covered 	Item 1 will become superfluous when prEN ISO 11611 is accepted – addressed by 4.1
		covered when made of metal to prevent electrical conduction (as per EN 470-1) or should it be treated as to prevent sticking of the molten metal (as per EN 531 D and E).		Item 2 will remain valid when EN ISO 11611 is approved – draft has no requirement to cover zip

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4.3	Design, pockets	1. What is actually meant by "not be capable of being tucked into pocket"?	1. The additional garment requirements given in EN 531 (clause 3) could also be applied also for the welders' clothing. It specifies that the external pockets on jackets and overalls shall be covered by flaps at least 20 mm wider than the pockets to avoid the flap being tucked into the pocket.	Items 1 and 2. will become superfluous when prEN ISO 11611 is accepted (addressed by 4.3 (EN 470- 1 amd.1998) and 4.3 of prEN ISO 11611)
		2. Clause 4.3 states "If trousers have pockets, these shall be side pockets only". Does this also apply to the trousers part of a one-piece coverall? 3. The standard includes requirements for the pockets, but what about the pass-through.	2. Pockets on the back of the trousers are acceptable, if they have flaps (except the rule-pocket) and if the proper user's information is given. 3. It shall be possible to close all openings to avoid molten metal to enter.	Item 3 will become superfluous when prEN ISO 11611 is accepted – addressed by 4.3
5.1, 5.3	Breaking strength, textile, leather.	Two methods are specified: ISO 5081 for textile ISO 3376 for leather. The width of test specimens is 5 cm for textile and 1 cm for leather. Breaking strength requirements should be correlated to the width of the sample.	The results obtained with the ISO 3376 method for leather should be multiplied by 5.	Will become superfluous when prEN ISO 11611 is accepted – addressed by 6.1 and 6.5 Note: ISO 5081 has been superseded by EN ISO 13934-1
5.2	Tear resistance	The tear resistance is measured in accordance with ISO 4674 but the method to use is not specified. Is it A_1 or A_2 ?	Method A_1 should be used in accordance with the document WG1/PG3/N40.	Will become superfluous when prEN ISO 11611 is accepted – addressed by 6.2
5.3	Dimensional change, knitted fabrics,	The 3% maximum change quoted in these specifications is neither appropriate nor accurately measurable for knitted fabrics.	The 3% figure is maintained as a rule. However the notified body may judge as its expert opinion that the knitted material is stretchable enough not to affect the protective properties and a higher shrinkage is acceptable. This should be mentioned in the information for use.	Will become superfluous when prEN ISO 11611 is accepted – addressed by 6.4 See also EN 469 and EN 531
5.3	Dimensional changes, leather	Dimensional stability is determined after exposure to 200°C for 15 min. These conditions of tests are not proportional to the conditions of use and the essential requirements.	1. We propose 100°C during 15 min. The shrinkage shall be < 5%.	Will become superfluous when prEN ISO 11611 is accepted – addressed by 6.1 and 6.5

5.5	Chromium (VI) content	Chromium content of gloves has to be measured even if the glove has a liner. For an apron or jacket in leather there is no requirement for chromium content.	1. This is clearly an omission. The text of prEN ISO 11611 (6.11.2) corrects this and makes Cr(VI)-determination mandatory	Will become superfluous when prEN ISO 11611 is accepted – addressed in 6.11.2, but limit needs altering from 2 to 10
		A glove with a liner however is a similar situation as a jacket worn over a shirt. 2. A welders' jacket and apron was found to conatain more than 10 ppm Cr ⁺⁶ . EN 470-1 doesn't refer to Cr6+. Can this jacket bear the CE marking?	2. No, this is a general requirement, common to all types of protective clothing. Protective clothing should not contain harmful substances	
6.1	Accessories (threads, embroideries, seams)	1. The standard does not require flammability testing of accessories such as closure systemes (e.g. zips), badges/logos or seams. 2. Should the thread used for seams in protective clothing against heat and flame meet special requirements? 3. When and under which conditions can embroideries be applied on the garment? Should the surface be limited? Are there requirements for the yarns?	with EN 532 if they are not covered. 2. If the material of the threads used for seams is the same as the one used for clothing it isn't necessary to test. If not, the sewing thread shall be tested. 3. Embroideries in FR yarn should be accepted without restriction. Separate embroideries with non-FR yarn could be stitched to the garment afterwards. There is still a safe background. For embroideries with non-FR material, a test according EN 532 should be carried out to check if the sample fulfils the criteria.	Items 1,2,3 will remain valid when EN ISO 11611 is approved – seams are tested (6.6) but no other items Item 4 will become superfluous when prEN ISO 11611 is accepted – addressed by 6.6, seams are tested. See also EN 469 and EN 531
		4. Should the seams of garments meet the same requirements for flammability as the main fabric?	4. Yes.	
6.2	High visibility garments for welding.	Should the retroreflective material be tested to EN 348 (Molten metal) as well as to EN 532 (burning behaviour) for high visibility garments used for welding operations?	Yes, they shall fulfil the requirements for welder's protective clothing.	Will remain valid when EN ISO 11611 is approved

6.2	PPE; sticking of molten metal	How to classify a garment when it ignites when drops of molten metal stick on the material?		Will become superfluous when prEN ISO 11611 is accepted – addressed by 6.7 See also EN 348 and EN 407
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Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

EN 531

Rev.: 2007-02-07

Approval by:

Horizontal Committee Standing Committee Approved on:

19.11.2007 30.04.2009

This Recommendation for Use sheet contains questions and answers discussed and approved at VG 5 meetings concerning issues addressed in the following standards:

. EN 531:1995 Protective clothing for industrial workers exposed to heat (excluding firefighters' and welders' clothing)

Clause	Key words	Question	Proposed solution	Comment
-	Categorisation	Under which conditions shall products complying with EN 407, EN 469 or EN 531 belong to category 3?	It is a manufacturer's decision which should be in accordance with the intended use and the risk. The notified body has the right to disagree with the manufacturer's decision (see Annex to this sheet for guidance)	Will remain valid after approval of EN ISO 11612
			The information leaflet shall contain the appropriate information	
-	Socks	Is it possible to certify socks according to EN 531, protective clothing against heat and flame?	Socks can not be certified against EN 531, which is a standard for complete clothing. Certification of these PPE against the basic requirements of the PPE directive is always possible. In the certification process relevant elements and test methods quoted in EN 531 may be used.	
1	Undergarments, certification	According to the scope EN 531 applies to outer garments.	Certification to be done according to the essential safety requirements of the Directive.	Will remain valid after approval of EN ISO 11612
		How should the undergarments, tested according to this standard, be certified?	The classification of performance levels according to EN 531 can be given in the user's information. It shall be indicated that the undergarment must not be used alone, but in combination with outer garments.	

	1			
1	Neck protector, certification	Can a neck protector be certified as a PPE against thermal risks?	In principle yes, but the interface between neck protector and garment (and other PPE) shall be checked. Elements from EN 531 may be used to assess the thermal behaviour, although neck protectors are not included in the scope of EN 531, like e.g. hoods.	Will remain valid after approval of EN ISO 11612
5.2	Dimensional change, knitted fabrics	The 3% maximum change quoted in these specifications is neither appropriate nor accurately measurable for knitted fabrics.	The 3% figure is maintained as a rule. The notified body may judge as an expert opinion that the knitted material is stretchable enough not to affect the protective properties, and a higher shrinkage is acceptable. The real shrinkage should be mentioned in the information for use. See also EN 469 and EN 470	Will become superfluous after approval of EN ISO 11612 (addressed in 6.4.2)
6	Performance levels, test method.	One of the components of flame and heat protective clothing, including specialised fire fighter's clothing, is a hood incorporating a visor. However the standards make no reference to tests (optical and thermal) or performance levels for the visor. The same applies to some respiratory requirements, like dead space. What shall be checked by the notified body?	The notified body shall conduct the necessary tests for these respiratory and optical protection components to establish conformity with the basic health and safety requirements (in accordance with the intended use).	Will remain valid after approval of EN ISO 11612
6.1	Outer material, clothing assembly	How can we consider a trouser with an inner lining? Is the lining considered a part of the outer material, or a clothing assembly? Shall this inner lining be non-flammable or can a flammable lining be acceptable?	This lining shall in principle be non flammable and shall not melt in order to be in accordance with the essential requirements (Annex II, clause 3.6.1 of EC directive 89/686). But if, in use,the liner does not represent a flammability risk, then a flammable liner may be used	Will become superfluous after approval of EN ISO 11612 (addressed in 6.3.3.1.4 or 6.3.3.2.4)
6.2	Accessories (threads, embroideries, seams)	The standard does not require flammability testing of accessories such as closure systemes (e.g. zips), badges/logos or seams. Should the thread used for seams in protective clothing against heat and flame meet special requirements? When and under which conditions can embroideries be applied on the garment? Should	1. The accessories have to be tested in accordance with EN 532 if they are not properly covered. 2. If the material of the threads used for seams is the same as the one used for clothing it isn't necessary to test. If not the sewing thread shall be tested. 3. Embroideries in FR yarn should be accepted without restriction.	Items 1 to 3 will remain valid after approval of EN ISO 11612 (Annex B is informative) Item 4 will become superfluous after approval of EN ISO 11612 (addressed by 6.3.1).

		we limit the surface? Are there requirements that the yarn should fulfil? 4. Should the seams of garments meet the same requirements for flammability as the main fabric?	Separate embroideries with non-FR yarn could be stitched to the garment afterwards. There is still a safe background. For embroideries with non-FR material, a test according EN 532 should be carried out to check if the sample fulfils the criteria. 4. Yes. NOTE: see also EN 469 and EN 470	
6.2	Flammability, washing, durability	1. Why is flame behaviour verified only after 5 washing cycles, and not in accordance with the number of cycles claimed by the manufacturer's notice of use? What about flame retardant treatments which are efficient for only a limited number of cycles	1. If the notified body knows that cleaning doesn't affect the properties of the materials, then 5 cleaning cycles are sufficient. If the notified body. doesn't k now the effect of cleaning then the number of cleaning cycles, stated by the manufacturer, shall be applied before testing	Will remain valid after approval of EN ISO 11612
6.5, 6.6	Large metal molten splashes, ignition	Shall we accept samples when large metal molten splashes stick on the material and set the material on flame?	During the large metal molten splashes test, the material shall not ignite.	Will remain valid after approval of EN ISO 11612
7	Quick release fastening.	"Quick release fastening shall be provided to enable rapid removal in an emergency". What is meant with a quick release fastening? Can a zipper be regarded as a quick release fastening?	For these kinds of garments other closing/opening techniques shall be used. If the manufacturer proposes clothing with zippers, the Notified Body shall check if the opening time of the zipper is in relation with the risk. The manufacturer has to specify in the instruction for use how the quick release system works.	Will remain valid after approval of EN ISO 11612 (Annex B is informative)

7	Pockets, pocket closures	1. All external pockets in jackets and coveralls need a flap 20-mm wider than the pocket. Is this also required for vertical pockets in the trousers of a coverall	For performance categories D and E the pockets shall be closeable. The recommendations in EN 470 should be taken into account.	Will remain valid after approval of EN ISO 11612 (Annex B is informative) See also EN 470
		 2. Can a zipper be used for closing a pocket? 3. Trouser pockets with vertical openings do not need flaps. If jackets have vertical pockets, they do need flaps. Some manufacturers propose flaps 	2. Yes, if covered by a flap.3. The flap should be in the opposite direction or perpendicular to the opening	
		as an extension of the opening. Is this useful? 4. Are the pocket requirements also valid for a pass-through? Does it need to be closed over its entire length?	4. It shall be possible to close all openings fully to avoid molten metal to enter.	
		5. Can an antenna (e.g. of a cell phone or walkietalkie) stick out of the pocket flap through an opening?	5. No, the pocket shall be closed over all its length	
7	Molten metal, accumulation in pleats	Can a garment have open pleats in the back? At the bottom of the pleat, a diagonally stitch could prevent entrapment of molten metal. Is this sufficient and/or necessary?	Yes, if measures like diagonal stitches are provided to avoid molten metal to be entrapped.	Will remain valid after approval of EN ISO 11612 (Annex B is informative)
7	zippers	The standard requires that metal zippers are covered or treated in order to prevent molten metal to stick to the zipper. Does this mean that plastic zippers can remain uncovered?	For this type of intended use zippers shall always be covered.	Will remain valid after approval of EN ISO 11612 (Annex B is informative)

Annex to question "categorisation": category III (underlined)

Property ®	Burning behaviour - Afterflame time (s) - Afterglow time (s)	Convective heat (EN 367) - HTI (s)	Radiant heat (20 kW/m ²)	Contact heat - Contact temp (°C) - Parn threshold time	Welding drops - Number of drops	Molten metal splashes mass (g) - Aluminium
- Product	- Antergiow time (s)			(s)		- Iron
<u>standard</u>						
EN 469 Protective clothing for firefighters (category 3)		HTI>13	>22 (40 Kw/m²)			
EN 531	A	В	<u>C</u>			D/E
Protective clothing for		<u>>31</u>				
industrial workers		21-30	<u>>151</u>			
exposed to heat (category 2 or 3)	<2 <2	13-20	<u>91-150</u>			≥ <u>201</u> ≥ <u>351</u>
Levels		7-12	<u>31-90</u>			121-200 201-350
		3-6	8-30			60-120 100-200
EN 407 Protective gloves against thermal risks	< 2 < 5	≥ <u>18</u>	≥ <u>150</u>	<u>500</u> ≥ 15	> 35	200
(category 2 or 3)	< 3 < 25	> 10	> 90	350	> 25	<u>120</u>
Levels	< 10 <120	> 7	> 30	> 15 250 > 15	> 15	60
	< 20	> 4	> 5	100 > 15	> 5	30



CO-ORDINATION OF NOTIFIED BODIES PPE Vertical Group 5: Protective clothing and gloves RECOMMENDATION FOR USE

EN 532-533 **prEN ISO 14116**

Rev.: 2007-08-24

Approval by: Horizontal Committee **Standing Committee** 30.04.2009

Approved on: 19.11.2007

This Recommendation for Use sheet contains questions and answers discussed and approved at VG 5 meeting concerning issues addressed in the following standards:

- EN 532:1994 Protective clothing Protection against heat and flame Test method for limited flame spread (superseded by EN ISO 15025:2002)
- EN 533:1997 Protective clothing Protection against heat and flame Limited flame spread materials and material assemblies

Standard and Clause	Key words	Question	Proposed solution	Comment
EN 533, 1	Materials, CE type examination	EN 533 is a performance specification for materials only. Is it possible to obtain a CE type examination certificate for protective garments against flames, based on EN 533?	A protective garment against flames has to fulfil the essential safety requirements. Based on the risk assessment the relevant harmonised standards should be applied (EN 340, EN 1149, EN 531, EN 533, etc.). If the material has to be tested, EN 533 applies and can/should be mentionned on the marking/information for use (materials tested according to EN 533).	Will become superfluous after approval of prEN ISO 14116, which addresses both materials and garments
EN 533, 4	Other garment features (threads,embro ideries, seams	The standard does not require flammability testing of <u>accessories</u> such as closure systemes (e.g. zips), badges/logos or seams. Should the <u>thread</u> used for seams in protective clothing against heat and flame meet special requirements?	1. The <u>accessories</u> have to be tested in accordance with EN 532 if they are not covered. 2. If the material of the <u>threads</u> used for seams is the same as the one used for clothing it isn't necessary to test. If not the sewing thread shall be tested.	Item 4 will become superfluous after approval of prEN ISO 14116, which provides for a seam test Items 1 to 3 will remain valid

		3. When and under which conditions can embroideries be applied on the garment? Should we limit the surface? Are there requirements that the yarn should fulfil?	3. Embroideries in FR yarn should be accepted without restriction. Separate embroideries with non-FR yarn could be stitched to the garment afterwards. There is still a safe background. For embroideries applied on non-FR material, a test according EN 532 should be carried out to check if the sample fulfils the criteria.	
		4. Should the seams of garments meet the same requirements for flammability as the main fabric?	4. Yes. NOTE: see also EN 469, EN 470 and EN 531 (where applicable)	
EN 533, 4.1	Materials next to the skin, incompatible properties	EN 533 forbids contact between the skin and an index 1 material. EN 1149-1 on the other hand requires a sufficient contact between the antistatic side of the fabric and the skin. Does this mean that e.g. a PU-coated antistatic material can not be used for a combined protection against both risks.	An other material which meets the index 2 requirement of EN 533 and the dielectric requirements of EN 1149-1 should be used to ensure continuity (e.g. at wrists, ankles and neck)	Will remain valid after approval of prEN ISO 14116
EN 532	Flammability index – hole formation	When tested in accordance with EN 532 (or EN ISO 15025) some materials show a discontinuous hole, i.e. a hole crossed by fragments or threads of remaining fabric. In the case of some coated fabrics the coating burns away and leaves a charred scrim of fabric behind. Is it possible to qualify this type of material with an index higher than 1?	A discontinuous hole (larger than 5x5 mm) is a hole and such materials can not be characterized as index 2 or 3 materials. They should not be compared with real index 2 or 3 materials and their use should be limited to parts of the clothing, which do not come into contact with the skin. In the instructions for use clear warning should be given not to wear these materials in contact with the skin.	

14116, 6.2	Mechanical testing of knitted materials	prEN ISO 11611 and prEN ISO 11612, which will replace EN 470 and EN 531, both include tensile, tear, and seam strength tests and also burst strength tests for knitted materials. The related draft prEN ISO 14116, which will replace EN 533, includes tensile, tear, and seam strength tests, but does not include burst strength for knitted materials (FDIS dated 2006). We have often been told that harmonised standards should include at least one basic mechanical requirement. The tensile, tear and seam strength tests are not suitable for knitted materials	When EN ISO 14116 is adopted, we propose to test knitted materials for burst strength to EN ISO 13938-1, to align the standard with EN ISO 11611 and EN ISO 11612. The minimum requirement should be Class 1 of EN 14325, Table 5, i.e. a minimum of 40 kPa. Seams of knitted materials shall also be tested for burst strength and classified in the same way. This will be brought to the attention of WG 2 in view of an amendment to EN ISO 14116.	
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Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

Electrostatic charges EN 1149 series

Rev.: 2007-02-07

Approval by:
Horizontal Committee
Standing Committee

Approved on: 19.11.2007 30.04.2009

This Recommendation for Use sheet contains questions and answers discussed and approved at VG 5 meetings on issues addressed in the following standards:

- EN 1149-1: Protective clothing Electrostatic properties Part 1: Test method for measurement of surface resistivity (editions 1995 and 2006)
- EN 1149-2:1997 Protective clothing Electrostatic properties Part 2: Test method for measurement of the electrical resistance through a material (vertical resistance)
- EN 1149-3:2004 Protective clothing Electrostatic properties Part 3: Test methods for measurement of charge decay
- . prEN 1149-5:2005 Protective clothing Electrostatic properties Part 5: Performance requirements

Standard and Clause	Key words	Question	Proposed solution	Comment
EN 1149-1, 4	attachments	What are the requirements for external attachments (e.g. badges, reflective stripes) larger than 4 cm for electrostatic dissipative protective clothing according to EN 1149-1?	The external attachment materials have to meet the same requirements of EN 1149-1 as the clothing material. This is recommended as a clear and safe solution in order to avoid a solution depending on the size of attachment, hazardous area clothing material, etc. In other cases special assessment is necessary, e.g. reflective stripes are allowed if directly applied on an antistatic material.	

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4, 5	Requirements, core conductor fibres	EN 1149-1 specifies a test method and requirements for surface resistivity but the test method is not applicable to materials with core conducting fibres, which can be tested in accordance with EN 1149-3. What are the requirements for these materials?	Use requirements in prEN 1149-3:2001-05, annex A Note: EN 1149-3:2004 does not specify these requirements anymore. They will be included in the future EN 1149-5.	
4.1	Non homogeneous materials, resistivity	 EN 1149-1 clause 4.1 states following maximum resistivity requirements: for homogeneous materials: lower than 5·10¹⁰ according to clause 5 (test method). for non-homogeneous coated or laminated materials: resistivity must be almost on one surface, according to requirements for homogeneous materials. for non-homogeneous materials with conductive threads: not exceed 10⁹ • almost on one face of the material. How should we interpret the resistivity requirement for non-homogeneous materials with conductive threads: as an exact value, i.e. 1.0x10⁹ Ω or as a range, i.e. between 1.10⁹ and 1.10¹⁰ Ω? 	The revised version of EN 1149-1 is exclusively a test method and does not contain any requirement provisions anymore. prEN 1149-5 is being developed as a product specification standard. The final draft of this standard (version 2006/05) quotes following material requirements: An electrostatic dissipative material shall meet at least one of the following requirements: — t50% < 4 s or S > 0,2 tested according to EN 1149-3, test method 2 (induction charging) or — a surface resistance of less than or equal to 2,5x10 ⁹ Ω,• on at least one surface, tested according to EN 1149-1. For a material containing conductive threads in a stripe or grid pattern the spacing of the conductive threads in one direction shall not exceed 10 mm in any part of the garment.	
4.2	Skin contact, incompatible properties	EN 1149-1 requires a sufficient contact between the antistatic side of the fabric and the skin. EN 533 on the other hand forbids contact between skin and an index 1 material. This means a typical PU coated antistatic material could not be used for a combined protection against both risks.	An other material which meets the index 2 requirement of EN 533 and the dielectric requirements of EN 1149-1 should be used to ensure continuity (e.g. at wrists, ankles and neck)	
4.2	skin contact, earthing	The standard specifies that skin contact is necessary. In case this is not possible the garment should be earthed directly. Skin contact is only relevant in case the	Yes, this should be part of the instructions. Permanent earthing of the person requires dissipative footwear and a dissipative and earthed floor.	

		garment is combined with the right type of footwear. Shouldn't it be necessary to add this in the instructions, as the standard does not require it?	Note: This requirement is intended to be part of a future EN 1149-5 (product standard for protective clothing to prevent accumulation of electrostatic charges).	
prEN 1149-5	ATEX situations, fire behaviour	Clothing meets the requirements of prEN 1149-5 with regard to its design and electrostatic dissipation properties and will be used in an ATEX situation (possible risk of explosion and fire). Can this clothing be certified even when it offers no protection against flames, i.e. can prEN 1149-5 alone be used for certification in this case?	prEN 1149-5 addresses only the issue of electrostatic dissipation. When other risks are likely to occur in conjunction with electrostatic accumulation (which is almost always the case) the requirements of prEN 1149-5 shall be completed by the requirements of (an) other relevant product standard(s). In this specific case because the intended use includes a clear risk of fire. In such case the garment should offer a protection against that risk (cfr. directive art. 10.4.b). In addition the scope of prEN 1149-5 refers to the risk of "incendiary discharges".	
prEN 1149-5	Requirements, materials and design	Could we take pr EN 1149-5 (2004) as the basis for type examination of electrostatic properties of antistatic clothing made of textile with metal core yarn? Especialy that in EN 1149-3 (2004) no material and design requirements are included. Some notified bodies take the standard prEN 1149-3 (2001) as the basis for type examination, where requirements for material and design are included.	prEN 1149-5 has been developed to deal with the design and material requirements. At this moment it is the most up-to-date document available. prEN 1149-3:2001 has been superseded by EN 1149-3:2004 and should no longer be used.	
prEN 1149-5	Requirements, design	According to prEN 1149-5, clause 4.2.1 (material requirements) an electrostatic dissipative material shall have a surface resistance of less than or equal to $2.5 \times 10^9 \ \Omega$, on at least one surface, tested according to EN 1149-1. According to prEN 1149-5, clause 4.2.2 (design requirements), the outermost material of an electrostatic dissipative protective clothing, which comprises multiple layers, shall meet the material requirements.	The dissipative layer shall meet the material requirements and can be used as the outer face or as the inner face of the outer layer of a material assembly.	

		However, the placing of the dissipative surface is not specified. Shall the dissipative surface of the material be oriented towards the outside, i.e. the side exposed to the risk?		
prEN 1149-5	EC type examination certificate	Is it allowed to indicate compliance with prEN 1149–5 (at present a prEN) on an EC type examination certificate, if clothing with antistatic properties after testing according to EN 1149–3 conforms to requirements of pr EN 1149–5?	Yes, this is possible. Certificates are issued against the basic requirements of the Directive. Reference to the technical documents (harmonised standards and others) used to prove compliance with these basic requirements can be made on the certificate.	
general	Durability, washing	If the producer declares in the manufacturer's information that the electrostatic properties of clothing made of metal core yarn are maintained after 50 cycles of treatment (washing), does the notified body have to check if the material has been tested after declared number of cycles?	Yes, according to the labelling instructions of EN 340. It is the notified body's task to verify this, either by requiring proof from the manufacturer or by testing it in its own laboratory.	



Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

Gloves

Rev.: 2007-08-24

Approval by:
Horizontal Committee
Standing Committee

Approved on: 19.11.2007 30.04.2009

This Recommendation for Use sheet contains questions and answers discussed at VG 5 meetings concerning issues addressed in the following standards:

- EN 420:2003 Protective gloves General requirements and test methods
- EN 407:2004 Protective gloves against thermal risks (heat and/or fire)
- EN 374-1:2003 Protective gloves against chemicals and micro-organisms Part 1: Terminology and performance requirements
- EN 511-2006 Protective gloves against cold
- EN 388-2003: Protective gloves against mechanical risks
- EN 659:2003: Protective gloves for firefighters

Standard and Clause	Key words	Question	Proposed solution	Comments
EN 407	Barbecue gloves	Are gloves for use at a barbecue PPE category 2, if they are intended for professional use? If yes, what shall we test? Whole EN 407 or just parts of it?	This type of glove should be considered PPE cat 2 (see also recommendation for use sheet to EN 531) As there is no specific product standard for this, following elements from EN 407 could be used for testing: - flame resistance; - resistance to contact heat - resistance to convective heat.	-

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EN 659, 3	Fire fighters' gloves	The general requirements (clause 3.1) demand separate tests if the material in front and/or back of the glove is different. Clause 3.8 (convective heat) requires sampling from palm and back. Clause 3.9 (radiant heat) requires sampling from the back. Can we accept a reduced protection at the side of the fingers because it's neither front nor back? If the assembly construction in these parts is different from front/back, a different (reduced?) protection performance can be expected.		
EN 659	Fire fighters' gloves, marking	The EN 659 requires the marking of the gloves: Every protective glove must be marked with the number of this standard, EN 659, and the pictogram Furthermore the marking must be carried out according to the requirements of EN 420. The EN 420 says in 7.2.1.1. e: "The number of the specific standard and the performance levels must be indicated." Does it mean we have to put all performance levels on the gloves?	Only the pictogram and the number of the standard should be on the gloves. Performance levels shall be explained in the user's information	
EN 374	Gloves, chemical protection	using standard EN 374-1: 1993 a few years ago. For this certification, a few chemical products	or <u>Solution 2</u> : certify the glove according to EN 374-1	

		caustic soda). Today, the manufacturer of this equipment wishes to have a certification according to the revised version of EN 374-1 (version 2003). But the problem is that the glove isn't able to get a class 2 for 3 of the 12 chemical products listed in annex A of the standard.	interpreted as low level protection. In the context of the standard it just means "protection against a narrow range	
no standard available	Gloves, entanglement moving parts	No standard has taken into account this risk for protective gloves. Gloves made with high tensile strength fibres could be very dangerous because they will not easily tear when caught by a moving machine.	A warning shall be given in the information leaflet	
EN 374-420	Gloves, length	EN 374-1 clause 5.1 states that minimum liquid proof glove length shall be at least equal to the minimum length specified in EN 420. Can clause 5.1.3 of EN 420:2003 be applied i.e. "gloves designed for special applications may not conform to the values of table 3" (minimum lengths)? Medical examination gloves are made to a 240 mm length specified in EN 455. They do not comply with EN 420 lengths above size 8 but are clearly for a "special application" and are increasingly submitted for certification to EN 374-1 claiming categories of chemical and/or micro-biological protection.	Medical examination gloves that are claimed to protect against chemicals should meet the requirements of both standards. The exemption clause of EN 420 can not be applied here.	
EN 420	Gloves, length	Is it possible to issue a (positive) Test Report of EC Type-Testing and the subsequent EC Type-Certificate for gloves shorter than the minimum length as given in EN 420:2003, 5.1.2, Table 3.; if the opinion of the Notified Body is that this does not have an impact on the intended use of the gloves?		

EN 420	Gloves, natural rubber, protein content	EN 420 (2003) foresees the determination of extractable protein content for natural rubber latex gloves in section 4.3.4. Is this mandatory for natural rubber gloves that are worn with under-gloves (this is the case of containment enclosure gloves)?	Strictly spoken the test should be carried out, but it gives no useful information. Therefore warnings should be given in the information for use: - A warning mentioning that this glove is liable to cause allergies due to the natural rubber - A wording indicating that this glove has to be worn with under-gloves of at least the same length as the rubber glove	
EN 407	Gloves; protection from contact heat	Which category of PPE is the most appropriate one for gloves of performance level "1" (test at 100°C)	Category II The manufacturer is responsible for product categorisation.	
EN 420	Marking, reference to general standards	Is it possible to use EN 340 (EN 420) alone, when no EN product standard is applicable and to put the EN 340 number on the marking?	Marking with the general standards EN 340 or EN 420 is not possible. If there is no product standard, then no normative reference should appear on the marking.	
EN 388	Mechanical testing	mechanical protection level according to EN 388:2003 of the following gloves? (see	The results obtained on the weakest parts of the structure should be considered for the marking. This is sometimes in contradiction with taking the specimens from the palm of the glove. The informative notice shall give clear information on the meaning of the markings.	
		a) Gloves with reinforcement patches almost completely covering the palm and thumb:	Glove a) Abrasion resistance: test on the complete structure, not on the separate materials. Tear strength of the reinforcement patches should be tested and taken into account if higher than that of the other materials in the palm structure. Puncture and cut resistance should be tested on the weakest spots.	
			Glove b) For cut, tear and puncture see solution a) For abrasion use solution a) if the fingers are reinforced and solution c) if they are not.	
			Glove c) Test without taking into account the reinforcement patches, but make a note in the consumer information	

b) Gloves with reinforcement patches almost completely covering the palm but not the thumb:



c) Gloves with reinforcement patches covering some places on the palm and thumb:



d) Gloves with only the palm reinforced by stitches. The abrasion and cut resistance of the complete structure is clearly higher than that of the component materials (outer layer and lining):



brochure stating that the areas covered by reinforcement patches may have a higher protection level.

Glove d)

Abrasion and cutting: test with the stitches, it will be impossible to take test specimens otherwise.

Tear: on separate layers.

Puncture: on all layers together.

EN 420	Protective clothing and gloves, pictogram ionising radation	EN 420 (2003) foresees a pictogram for protective gloves against ionising radiation whereas EN 340 (2003) doesn't foresee any pictogram against this risk. How do we have to proceed for protective clothing providing protection against ionising radiations?		
no specific standard	Protective devices against cold and heat	Is the device shown in the figure a PPE? It is a silicone rubber mitt used for carrying hot or cold objects, mainly in laboratories. The device withstands temperatures from -57 to 260 deg C. Thumb and fingers fit into end pockets. The gripping surface is equipped with multiple concave tipped studs Which are the relevant test methods?	This is a PPE since it meets the definition of a PPE as specified in the Directive. A certification is possible according to the Directive. Elements from EN 420 and EN 407 and 511 (heat and cold contact insulation) can be used for the testing.	



Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

High visibility

EN 471 - 1150 - 13356 Rev.: 2007-08-24

Approval by:

19.11.2007

Horizontal Committee Standing Committee

30.04.2009

Approved on:

This Recommendation for Use sheet contains the questions and answers, discussed and approved at VG5 meetings, on issues addressed in the following standards:

- . EN 471:2003 High-visibility warning clothing for professional use Test methods and requirements
- . EN 1150:1999 Protective clothing Visibility clothing for non-professional use Test methods and requirements
- EN 13356:2001 Visibility accessories for non-professional use Test methods and requirements

Standard and Clause	Key words	Question	Proposed solution	
EN 471, 1.	Multi-purpose high visibility garments (Shall retroreflective material for high visibility garments used in welding operations or firefighting be tested to the provisions of EN 469 or 470-1?	Yes, they shall fulfil <u>all</u> relevant criteria of <u>both</u> EN 471 and EN 469 or 470 If this is not the case (e.g. because not all EN 471 requirements are met), then certification can still be done based on the Directive, but without any reference to EN 471. High-visibility materials shall not affect the heat protective performance of the garment, i.e. the criteria imposed by EN 469 shall be met, including flammability, tensile strength etc If these high-visibility materials are only applied as a strip on top of the garment, only flammability and heat shrinkage shall be considered	

4.1	Classification, combination of items	Is it possible to classify a trousers and jacket combination in class 3, when the separate items obtain only class 1 or 2?	Yes, it is possible. The fluorescent material of the part of the trousers, which is covered by the jacket in-service, shall be excluded when determining the performance class. It shall be stated in the instructions for use that they have to be worn together to obtain class 3.	
4.1	Classification, Jacket with removable sleeves	How to certify/classify a jacket with removable sleeves (class 3 with sleeves and class 2 without)?	The class indication in the marking could be replaced by an "i" referring to the instruction for use. An alternative is to mention the highest class in the marking, accompanied by a warning (in full text and in the language of the country of use) that this ranking can not be obtained if the garment is worn without sleeves. The choice is left to the manufacturer but everything has to be fully explained in the instructions for use, which are an integral part of the technical file.	
4.1	Classification, minimum area	What is the meaning of minimum areas of visible materials in m ² of table 1 of EN 471? What shall be counted to determine the performance class?	Table 1 has to be interpreted as: the area (of materials visible on both front and back It means that only those parts of background material which fully encircle the torso etc. shall be counted for defining the area that determines the performance class. Otherwise said: Parts of fluorescent material not fully encircling shall not be counted. The exception to this rule is a tabbard. It means also that only the visible part shall be measured. The overlapping part must not be considered.	
4.1	Classification, use of smallest size	Is it necessary to ask for the smallest size of a range of clothing to certify high visibility clothing?	Yes, because the EN 471 classification system is based on material surface, i.e. clothing size, always the smallest size of a group of articles shall be checked. Notified Bodies and their customers have the freedom to determine if this "group" covers the full available range of sizes or if the smallest size(s) are considered as a group on its own, subject to separate certification.	
4.1	Classification, harnesses	Is table 1 of EN 471 fully applicable to harnesses?	Yes, table 1 is also applicable to harnesses. Figures B.8 and B.9 give some examples.	

4.1, 5.1	Classification, perforated	1. How shall the minimum required area (performance class) be determined in the case	1. EN 471 requires an area of 0.5 m ² for the visible non-perforated background material class 2. Thus the visible	
	materials	of perforated materials? 2. Shall the minimum luminance factor be applied also to perforated background materials?	area of the waistcoat should reach this class after deduction of the perforated area. 2. Size and distance of perforation influence the test results. The luminance factor shall be measured on the material as used (i.e samples with perforation). The requirements for the luminance factor (clause 5) shall be fulfilled.	
4.1	Classification - combined performance materials	Is it possible to certify all types of garments with combined performance material in class 1?	Combined materials can be used for all types of high visibility garments in class 1	
4.1, 6.1	Classification, markings on reflective trimmings	In several cases, the retroreflective strip has some markings or non retroreflective lettering on it. Is this acceptable?	It is possible to accept markings or non retroreflective lettering on the retroreflective strips, provided the minimum area and the same safety level are reached.	
4.2	Design, items not covered by	Can items, not literally listed in EN 471 be certified according to EN 471?	Yes, this is possible, as long as they meet the technical requirements.	
	the enumeration in EN 471		Examples: shorts, T-shirts with short sleeves, jackets with 34 length sleeves, long-sleeved shirts without background material in the sleeves, trousers with background material not reaching to the bottom of the trousers-leg,	
			A T-shirt can be seen as a waistcoat and can be certified without reflective bands on the sleeves	
4.2	Design, retroreflective	Can extra retroreflective bands be added if the design requirements are fulfilled without	Extra reflective trimming is allowed if the requirements of EN 471 are fulfilled without them.	
	bands, extra trimming	taking these bands into account?	These "extra" bands could e.g. contain discontinuities or be not fully encircling. However they should not be included in the calculation to determine the performance class.	

4.2	Design, reflective bands, arrangement	Can retroflective bands be arranged in another way than described in EN 471, in order to make them <u>more visible</u> in a given end-use, e.g. retroreflective bands positioned on the legs when there is a risk the bands are hidden by fixed or moving items present in the work situation? Can these items still be considered as complying with EN 471 (cfr. marking), if accompanied by a reference to the deviation and the reasons for it?	In case of deviation from a harmonized standard to suit a particular end-use, it should be proven from the risk analysis of that particular application that the proposed modification is justified, i.e. the PPE still meets the basic health and safety requirements of the Directive. No. Compliance with an EN standard means to comply with the whole standard.	
4.2	Design, reflective bands, patterns	Is it possible to introduce different patterns of retroreflective striping as variants as long as the specification (classification and performance requirements) is met? Same rationale for various background colours?	It is possible to accept these variants if they are clearly explained in the technical documentation and if all possibilities are included in the test report Idem.	
4.2	Design, background material, minimum area (legs)	For a coverall with fluorescent background material and non-fluorescent material, what minimum area of fluorescent background material should be located on the legs?	It is difficult to impose criteria for the distribution of the fluorescent background material on a coverall, apart from the general criteria specified in EN 471(minimum surface, distribution front/back). Actually such criteria would depend on the typical intended use of the garment. If this is not clear, we suggest to use the criteria of the harmonised standard.	
4.2.2	Reflective bands, width and homogeneity	The manufacturer, who made the request, produces several types of retro-reflective trimmings. Due to the production technology used, the reflective elements need to be protected by a transparant plastic sheet. This plastic sheet is attached to the support material of the reflective layer by a pattern of welded lines. At these lines the reflectance is less than in the rest of the material. Does this comply with the requirements of EN 471:2003, where homogeneous reflectance of materials is not mentioned as such?	EN 471:2003 is a harmonized standard, which confers presumption of conformity. The requirements specified in EN 471:2003 shall be met. To ensure the visibility of a person from a distance at night-time strips shall have a minimum width of 50 mm and the material shall meet the minimum reflection requirements of EN 471, measured in accordance with the method specified in that standard. These normative provisions supersede the VG 5 sheet of 1998 and the compiled RfU sheet shall be modified accordingly.	

		EN 471:2003 states that: retro-reflective bands shall have a width of at least 50 mm (4.2.2). the retro-reflection measured under different angles shall reach the values specified in tables 5 to 7 (6.1). the measurement itself shall be carried out in accordance with CIE 54.2 on a specimen of 10 cm x 10 cm (7.3). Previously (a RfU sheet from 1998) VG 5 has taken the following position Question: There is a 50 mm wide retroreflective band including a border of plastic material at each side. These borders don't meet the minimum reflection required by EN 471, although the average coefficient of reflection for the whole band is within the range required. Is this type of material acceptable for certification? Answer: No. The strip shall show sufficient retroreflection over a width of at least 50 mm. The producer of the reflective material objects that this interpretation is not in line with the provisions of EN 471:2003, in particular the measuring procedure, and hence should be revised or withdrawn.	Additional information: It became clear from the discussion that this is a complex issue. For some materials, e.g. the case of two layers bound together with a regular pattern of thin welded lines, the less reflecting surface represents only a relatively small part of the total reflective area and even contributes to the durability of the reflective properties. Here the interpretation of the standard in the sense described above seems acceptable. However this is less clear for other structures. In some products, although they are 50 mm wide and meet the overall reflectance requirements, the less reflective part is much larger (more than 30% of the total area) and here it is questionnable whether the above interpretation of the standard is adequate to demonstrate compliance with the basic requirements of the directive or if it rather leads to confusion and misuse of the normative provisions. This situation will also lead to an unstable situation where notified bodies will come to contradicting conclusions. We will request CEN/TC 162 WG 7 to address this issue as soon as possible and to consider all types of products present in the market.	
4.2.3	Bands encircling the torso	EN 471:2003, clause 4.2.3 a) states that coveralls shall have retroreflective bands "encircling the torso". According to the dictionary a torso is the trunk of the human body, without head or limbs. There is no problem to verify this requirement if the bands are put low enough (under the armpit) to encircle the torso fully. But what if the upper band is placed almost at shoulder	VG 5 confirms the solution given in sheet 05.348 (2002). The band shall be put low enough to encircle the torso. Other configurations may be used if justified by specific work situations and on the condition that the reflective trimming remains sufficiently visible in all work postures.	

		height and hence can not encircle the torso fully? Note: This question has been raised before (sheet 05.348-2002.04-05), but the sheet was removed from the new compilation, because NBs assumed the text of EN 471:2003 was clear enough.		
5.1	Luminance factor, washing	Is it possible to accept a garment with a reduced luminance factor (below the performance requirement) after "x" washing cycles?	No, the luminance factor (and the chromatic coordinates) shall still meet the requirements after "x" washing cycles, if the manufacturer's instructions indicate that performance is retained for at least this number of cycles. This also applies to commercial laundering, if claimed by the manufacturer's instructions	
5.1	Colour test, orientation	If the colour test results depend significantly on the direction of the measurement, which value shall be given as test result?	At least four measurements shall be carried out in four perpendicular directions and the mean value shall be given as test result.	
5.1., 6.1	Background fabric, logos	A manufacturer has printed a repeating logo on a background fabric. The logo has retroreflective properties, which do not comply with EN 471. This logo comes in addition to the required areas of retroreflective material and just improves night-time conspicousness. Is this repeating logo allowable?	Yes, it is actually an example of "extra" trimming (see above sub 4.2 - design, retroreflective bands, extra trimming)	
5.3	Colour fastness	For which kind of non-fluorescent materials are the colour fastness / staining requirements in clause 5.3 applicable?	The colour fastness / staining requirements in clause 5.3 are applicable for the non-fluorescent material layers; e.g. additional (contrast) material layers on the outside of a garment or lining(s) inside the garment. Also non-fluorescent material layers are mentioned in the revised title of clause 5.3 in EN 471/ prA1 (instead of (all kinds of) non-fluorescent material). The colourfastness / staining requirements in clause 5.3 are therefore not applicable for the non-fluorescent materials which aren't (garment) layers: e.g. embroideries, textile material of zipper, elastic strips,	

			·	<u> </u>
			small marking tags, sewing threads etc. Small areas of non-fluorescent materials (e.g. < 2% of fluorescent material area) as labels, (knitted) stretch bands for jackets or trousers, fashion stripes (e.g. 3 mm chest braid), pocket flaps etc need special consideration (e.g. large area? dark colour? industrial washing? etc) and may require testing.	
			Washing of the whole garment can be used as a screening test to assess the influence of these small area materials. For other materials the colour fastness shall be assessed.	
			Clarification in the next revision of EN 471 is requested.	
5.3.3	Marking, bleaching	Is it necessary to perform a colour fastness test to bleaching with hypochlorite on a material (according EN 471:2003 p. 5. 3. 3), if in the care label of the garment bleaching is not indicated and/or allowed?	If the care labelling excludes certain care treatments, the corresponding tests should not be performed	
5.6.3	Background material, wvp- index	The water vapour resistance of textile background materials shall not exceed 5 (m² Pa/W) and the water vapour permeability index (imt) shall be not lower than 0.15 (EN 471, clause 5.6.3). When testing water vapour resistance (EN 31092) and water vapour permeability index for eight woven PES/CO fabrics (from 160 to 295 g/m²) all materials passed the requirement for water vapour resistance, but only two of them passed the requirement for water vapour permeability index.	The requirement is not applicable to this kind of thin materials, but only to thicker materials for which the requirement of water vapour resistance cannot be applied. The combination of WVP resistance and WVP index leads to the exclusion of materials on the basis of their mass per unit area, which is not relevant for their comfort properties. The WVP index should therefore not be required for noncoated woven or knitted fabrics which have a sufficiently low WVP resistance.	
6.2	Washing, maximum number of cycles	Nowadays in the market there are reflective bands that only last three washes. Is it possible to certify high visibility clothing under the Directive 89/686/CEE, and to EN 471 and EN 340 standards, if the care labelling shows that the maximum number of washes is only three?	Yes, this is possible, but the accompanying information (leaflet, marking) should be very explicit and unambiguous about this.	

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8	Marking – number of washing cycles	EN 471:2003 refers completely to EN 340 for "marking" requirements. EN340 mentions that the number of washing cycles shall be mentioned on the label if required by the specific standard. Washability is one the main requirements of high-visibility clothing, since washing is one of the main reasons for garments losing their fluorescent and retroreflective properties. Does this mean that the label of EN 471 shall mention, close to the wash symbol, the maximum number of washing cycles (as it has always been the case), or not?	The maximum number of washing cycles shall be mentioned	
8	Marking combined performance	EN 471 allows the use of combined performance material for Class 1 garments. These materials are classified according to Table 7, and do not meet Table 5 (Level 2) or Table 6 (Level 1). How should such garments be marked? The intended marking of 'Y' for retroreflective performance is either (Level) 1 or (Level) 2.	Use an X and put 'Combined performance material' below the pictogram or explain in the instructions for use.	
EN 13356	High visibility accessories	(Attached were some pictures of accessories, per type as defined in EN 13356.) Type 1: Free hanging accessories: dangle-tags, for children's clothing (on the side pockets, on the sleeves, on the zipper.) used in a lot in Scandinavian countries. (see picture 1) Type 2: Removable accessories The classical product is the slap-wrap. It can be applied on ankles or on wrists for cycling or jogging. (see picture 2) Type 3: Mounted accessories These are all the applications manufactured to be permanently fixed. (see picture 3)	All three types are considered to be PPE, category II	

	T	T		
		Are these items PPE in the sense of Directive 89/686/EEC? Picture 1 Picture 2 Picture 3		
EN 13356	High visibility accessories, cape for horse riders	Is it possible to certify the reflective striping on a cape for horsemen (grey colour) according to EN 13356? The width of reflective stripes is less than 5 cm. The information leaflet clearly declares that it isn't a warning vest and for use by horsemen only. The standard EN 13356 is fixed at the label. The material of the cape doesn't comply with eihter EN 471 or EN 1150.	The argument given in favour of certification of this product was that it was only an accessory (EN 13356), comparable to a reflective sticker or hang tag. The cape is then merely a piece of normal clothing, to which the reflective stripes are attached. However, most notified bodies did not follow this argument and were of the opinion that such type of garment gives the user a false sense of safety, even if the information for use explains that only the striping and not the vest should be considered as a PPE.	

EN 13356	High visibility accessories, minimum area	What is the meaning of the term "minimum area" in the text underneath table 2 of EN 13356. Does is mean the reflective area of the test specimen or does it refer to the area of 15 cm² which type 2 & 3 accessories should exceed (see clause 4.1).	Both requirements shall be met. The 15 cm ² are necessary for the visibility from a distance. On the other hand the material shall also meet the 400 mcd/lux requirement.	
		If "minimum area" does refer to 15 cm² then surely the requirements in table 2 are meaningless. A type 2 or 3 reflector needs to meet R' values at specific entrance and observation angles. However if a reflector only just meets these levels then it will not meet the minimum R value of 400 mcd/lx.		
		We have a reflector which meets table 2 but fails to meet this 400 mcd/lx value.		



Vertical Group 5: Protective clothing and gloves

RECOMMENDATION FOR USE

CHEMICAL

(includes biological and radio-active risks)

Rev.: 2007-02-07

Approval by:Approved on:Horizontal Committee19.11.2007Standing Committee30.04.2009

This Recommendation for Use sheet contains questions and answers discussed and approved at VG 5 meetings on issues addressed by the following standards:

- . EN 1073-2:2002 Protective clothing against radioactive contamination Part 2: Requirements and test methods for non-ventilated protective clothing against particulate radioactive contamination
- . EN 13034: 2005 Protective clothing against liquid chemicals Performance requirements for chemical protective clothing offering limited protective performance against liquid chemicals (Type 6 and Type PB [6] equipment)
- . EN ISO 13982-1:2004 Protective clothing for use against solid particulates Part 1: Performance requirements for chemical protective clothing providing protection to the full body against airborne solid particulates (type 5 clothing) (ISO 13982-1:2004)
- . EN 14126:2003 Protective clothing Performance requirements and tests methods for protective clothing against infective agents
- . EN 368: 1992 Protective clothing Protection against liquid chemicals Test method: resistance of materials to penetration by liquids
- . EN 369:1993 Protective clothing Protection against liquid chemicals Test method: resistance of materials to permeation by liquids
- . EN 463:1994 Protective clothing Protection against liquid chemicals Test method: Determination of resistance to penetration by a jet of liquid (Jet Test)
- . EN 466:1995 Protective clothing Protection against liquid chemicals Performance requirements for chemical protective clothing with liquid-tight connections between different parts of the clothing (type 3 equipment)
- . EN 467:1995 Protective clothing Protection against liquid chemicals Performance requirements for garments providing protection to parts of the body
- EN 468:1994 Protective clothing Protection against liquid chemicals Test method: Determination of resistance to penetration by spray (Spray Test)

Standard and clause	Key words	Question	Proposed solution	Comment
1073-2, 4.2	Radioactive contamination – puncture resistance	Can a material, which obtains a <u>level 1</u> for puncture resistance (EN 863), be used for nonventilated protective clothing against particulate radioactive contamination (EN 1073-2)?	The requirements, as specified in EN 1073-2, are somewhat ambiguous. The introductory sentence to clause 4 states that at least level 1 shall be reached, whereas Table 1 (clause 4.2) specifies level 2 as a minimum. Guidance should be taken from this table.	
			Hence materials that obtain only level 1 can not be used for this type of protective clothing.	
13034	Additional features	Can embroideries be put on a garment?	The embroidered garment shall pass the low level spray test	
13034, 4.1	Repellency, penetration	EN 13034:2005 Clause 4.1 states that chemical protective clothing materials shall be tested and classified to Clauses 4.12 and 4.13 of EN 14325:2004.	In order to be conform with EN 13034:2005, chemical protective clothing materials must be tested to Clause 4.12 and 4.13 of EN 14325:2004 using all four chemicals listed in Table 9.	
		Clause 4.12 and 4.13 of EN 14325:2004 state that the material shall be tested against <u>all four</u> chemicals listed in Table 9.	The User Information must list the levels obtained for all four chemicals listed in Table 9, even if unclassified, plus any other chemicals the manufacturer has tested against.	
		Clause 7g of EN 13034 states that the User Information must give the performance levels for <u>all</u> of the chemicals tested.		
		Should the material be tested against the four chemicals listed in EN 14325 Table 9, and should the User Information list the results against these four chemicals?		
13034, 4.2	Chemical penetration, seams etc.	EN 13034:2005 Clause 4.2 states that seams for chemical protective clothing materials shall prevent penetration of liquid.	Garments covering the whole body (coverall, jackets and trousers) shall be subjected to a whole suit spray test to assess the (limited) spray tightness of the garment construction.	
		For type 6 suits, the standard specifies that the whole suit spray test (according clause 5.2) should be performed, but is it enough to evaluate the resistance to liquid penetration of	This is not applicable to partial body protection items.	

		seams? A specific method to test the resistance to liquid penetration of seams for all kind of type 6 items (Type 6 suits or type PB 6) is not specified in EN 13034:2005. Should the seams be tested against the four chemicals listed in EN 14325 Table 9?		
13034, 468	Low Level Spray Test	There is not enough information about the calibration. We use different, nozzles and a different surface tension as in EN 468. Which volume should be in the beakers after the calibration?	Proposal to collect data results from different test laboratories (see annex for form)	EN 468 rev will describe both types of spray tests in detail
13982-1, 6e	instructions for use; test results	Should a manufacturer be allowed to indicate in the instructions for use the real values of test results obtained in EC type examination testing, when the requirement of these tests is expressed as a pass/fail criterion only?	No, according to sheet nr CNB/P/00.077, which is an explanation of the directive - annex II – item 1.4, the instructions for use must not be misleading for the user. Mentioning a measured value in addition to the conformity statement could make the user suppose that this value can be used to express the real performance of the equipment, and to determine the choice of the most suitable equipment and its conditions of use (for example wear period) taking into account the risk analysis. This is not acceptable since the standardisation working group - after evaluation of the test method - only retained a pass/fail criteria instead of classes.	
14126, 4.1.4	Infective agents	 For chemical protective clothing, which meets the requirements of. EN 943-1, protection against infective agents is claimed. Shall this clothing meet all requirements (tests), specified in EN 14126, clause 4.1.4, or just part of them? Is it necessary to perform the same material tests on clothing materials, gloves and boots? 	1.) The intended use and the corresponding risks and levels of protection shall clearly be stated. From this it should become clear if all or just some of the requirements are relevant and which tests should be performed. It should be noted that EN 14126 was developed with a very wide range of clothing types in mind. 2.) Yes, all constituent materials, exposed to the risk, shall be tested	

368, 1	Certification, use of EN 368	Is it possible to certify) a PPE (CE type examination) by combining EN 340 and EN 368, without use of a specific harmonized product standard?	No, a combination of EN 340 and EN 368 is not sufficient. There are other essential requirements to be met also. The relevant product standard will probably be prEN 13034 (final draft)	
368, 5.5	Volatile liquids penetration	The run off and penetration parameters are determined by means of the weight of fabrics and filter paper. How can such a procedure be carried out with volatile products (e.g. white spirit)?	The results of tests with volatile liquids may not be reproducible unless validated procedures are followed to control losses by evaporation to a constant definable level. The measurements of penetration, absorption and repellency may be facilitated conveniently however by the solution of an analysable substance (e.g. fluorescent or visible dye tracers) in the volatile liquid, provided it does not influence the performance of the test specimen (i.e. its resistance to penetration and repellency).(text from prEN ISO 6530:2004 – final draft)	To be withdrawn when EN ISO 6530 is approved.
369, 5.2	permeation, collecting medium	According to EN 369 (and EN ISO 6529) the collecting medium shall be: "Water or any other liquid having no influence on material permeation resistance". This may be very difficult since the liquid collecting medium shall comply with 3 requirements: - to dissolve the test chemical; - to be inert with regard to the material to be tested, and not modify its permeation properties. - to allow the chemical product to be detected with the sensitivity mentioned in paragraph 6.6 (1μg.cm ⁻² .mm ⁻¹) Combination of the three requirements will sometimes be impossible, e.g. extraction of plasticizers from PVC gloves or detection problems with a paraffine type mineral oil	It is necessary to verify before testing that the collecting medium has no influence on the tested material and the blank shall be zero. Suggestion: a guide to collecting medium selection should be produced	EN 369 superseded by EN ISO 6529

463, 5	Test liquid	Is it necessary to use de-mineralised water at 20 ± 2 °C to prepare the liquid for application in the jet test?	Use of fresh tap water at ambient temperature is adequate as long as specifications for the detection characteristics are met. Reason: - No unnecessary use of expensive de-mineralised water - Harmonisation with EN 468 (spray test)	The preparation of the test liquid will be explicitly described in the revision of EN 463. De-mineralised water will not be required.
463, 8.2	Test points	It is stated in 8.2 that the jet nozzle shall be positioned 1 m from the test spot at an angle that is more likely to cause penetration by the liquid jet. We think that this angle should be more clearly specified because it has a great influence in the test result and can make a suit pass or fail.	The angle shall be such that it makes the penetration of the liquid jet easier. A "worst case" scenario should be followed (see annex)	This will be explicitly included in the revision of EN 463, e.g.: "The jet nozzle shall be positioned in a horizontal line and at an angle which is most likely to cause penetration by the liquid jet. If a test spot is e.g. located in a zip covered by a flap, the jet shall come from the side that gives it possibility to come under the flap."
466, 6.3	jet test	Are two-piece suits, for example jacket and trousers, able to pass the jet test? Can the suit meet the requirements of EN 466 if the suit protects only parts of the body, for instance a garment without protection of the head? What design shall a garment have according to EN 466?	Experience shows a two-piece garment can pass the jettest. Partial body protection is not within the scope of EN 466. A suit without head, hand and foot protection is considered full body protection.	EN 466 will soon be superseded by EN 14605. The scope of this revised standard includes Type 3 and Type 4 clothing and partial body protection. It describes various types of garments that can meet the Type 3 or 4 requirements. Head, hand and foot protection is not necessarily included. Two-piece suits are explicitly mentionned
467	Partial body protection	Is it correct to certify a suit (combination of jacket, trouser, shirt) as full body protection and as well as partial body protection if there are no explicit design requirements in the relevant standard or partial body protection is not mentioned?	Yes, this is possible	EN 467 to be superseded by prEN 14605 (final draft)

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general	Abrasion, flex cracking, breakthrough	It is not specified, whether Method 1 or 2 of EN 530 shall be taken. What is the definition of breakthrough? In several standards the breakthrough detection for abrasion or flex cracking test is required but no clear end point criteria are specified.	Method 2 shall be used. Breakthrough shall be determined by use of the pressure pot method. If this is not possible, a hole of 1 mm diameter shall be considered as breakthrough for abrasion. For flex cracking, the hole is considered to be a crack of 1-mm length through the complete coating.	
General	Abrasion, flex cracking, pressure pot	When testing coated fabrics, laminates and membranes to Clauses 4.4, 4.5 and 4.6 of EN 14325:2004, there can be significant differences in classification between visual assessment and when using the pressure pot. Many fabrics that have previously passed using visual inspection have failed when assessed with the pressure pot. Now that EN 13034, EN ISO 13982-1 and EN 14605 have been ratified, what should be done regarding Certificates that have been issued where the fabric was assessed visually?	The notified bodies shall draw the manufacturers' attention to the changes induced by EN 14325 and their impact on material classification and recommend the manufacturers to have their materials assessed against the new test procedures. However, this should not be presented as mandatory.	
general	attached gloves and boots	There are no requirements to test gloves, boots, etc attached to a chemical suits for resistance to permeation against the same chemicals as the main part of the suit.	Glove materials shall be tested to either EN 374-3 or EN 369 using the same battery of chemicals the main part of the suit has been tested against. There is no permeation standard for boots. The notified body shall conduct all necessary tests to establish the conformity for the same battery of chemicals. The user information should include test data for the individual components of the clothing assembly.	
general	Cleaning, preconditioning for testing	How should chemical protective suits e.g. prEN 943-1 type 1, be cleaned, if they can not be cleaned according to a standard (ISO 6330) but according to specific instructions for use? The interpretation of the description in the instruction for use can be very different in the different test laboratories.	The instruction for use should be followed. They should be clear and unambiguous. If this is not the case, the notified body should ask the manufacturer to provide the necessary clarifications. NOTE This is applicable to all types of garments	

general	cold protection combined with chemical	What are the requirements, test methods, and categorisation of a cold protective suit worn over a chemical protective suit?	General requirements of the directive (design principles, innocuousness of PPE and comfort and efficiency) shall be checked.	See also EN 342
	protection		This includes testing of strength, puncture, tear, seam strength, flex cracking at low temperature and resistance to ignition.	
		the devices against these "cold" chemicals.	Requirements of EN 943-2 shall be used for evaluating the level of performance.	
			The whole suit when used with the chemical protective clothing and devices shall pass the work simulation test at low temperatures as specified in EN 943-2, clause 8.1.1.2.	
			The chemical protective suit itself shall fulfil the permeation requirements	
			This is category III equipment.	
general	instructions for use	Should NB's agree on essential harmonised formulations, which are not covered/required by the (pr)EN-standards, to be included into the "instructions for use" for specific types of CPC?	Yes, they should. This is an approach to improve equal treatment of the manufacturers by the European test houses. 1. CPC Types 1, 2, 3, 4, 6 "This clothing gives protection against specific named chemicals." "The test results found under laboratory conditions are	
			only to be regarded as an orientation for practical applications."	
			CPC Types 3,4,6 that are used in connection with respiratory protective devices (RPD) "No general statements can be given for the leak tightness of RPD in connection with the approved suit different from those used under test."	
general	limited protection	In categorisation of PPE for protective clothing and gloves the definition is: "PPE providing only limited protection against chemical attack".	The moment the chemical reaches the skin, i.e. the first contact with the skin. Since there is no perfect and lasting barrier, all chemical protective clothing and gloves should fall into this category.	EN 369 superseded by EN ISO 6529
		What is meant by chemical attack?		

general	pockets	Are open pockets (without pocket flap) especially rule pockets, allowed for this kind of protective clothing?	Open pockets should not be used. All pockets, including pockets with a vertical opening, shall be covered to prevent penetration of liquids	
General	repellency	Several manufacturers include in their instructions for use the procedure to be followed for reapplication of the fluor carbon finish. Does the NB need to verify these instructions?	No, the NB only needs to verify that the manufacturer gives the instruction.	
general	Test methods	The level of performance of CPC material when tested for abrasion and flex cracking resistance is determined through a leak tightness test. The apparatus for this purpose is a pot test which dimensions are specified in the standards. The abraded area of the sample after testing is larger than the one of the pressure pot test for examination. Similar problem happens with the area submitted to flexing test. That means that the test does not cover the examination of the whole area susceptible to be damaged.	The test specimen shall be placed with the damaged area on the centre of the pot. Dimensions of the pot test should be changed in order to examine the whole damaged area.	

Annex to "low level spray test"

NOZZLES	Pressure (bar)	Flow (l/min)	BEAKERS	Volume (ml) collected per beaker. (after 3 min spraying)
1 (bottom)			1	
2			2	
3			3	
4 (top)			4	

Surface tension of the test liquid (N/m):

Pressure at the pump (if not possible measurement at each nozzle):



CO-ORDINATION OF NOTIFIED BODIES PPE

Vertical Group 5: Protective clothing and gloves RECOMMENDATION FOR USE

GENERAL

Rev.: 2007-08-24

Approval by:
Horizontal Committee
Standing Committee

<u>Approved on:</u> 19.11.2007 30.04.2009

Standard and Clause	Key words	Question	Proposed solution	Comment
EN 530	Abrasion testing	The testing procedure for method 1: "Determination of abrasion resistance", needs better description. It is not clear whether or not foam shall be positioned between the metal insert and test specimen. The use of foam or felt backing for the abradant is also not properly described. This question was raised at the VG5 meeting in 2006 but was not resolved. Subsequent to this meeting, CEN/TC162 WG5, which is responsible for EN 530, met and discussed this question. The WG agreed to seek a preliminary work item for the amendment. They also agreed that the correct procedure for mounting of the test specimen and abradant, which is missing from EN 530:1994, is in EN ISO 12947-2:1998.	It may take some years to amend/revise EN 530 because of various other concerns. Therefore a VG 5 RfU sheet is needed for use during this unknown interim period When testing using EN 530 Method 1, undertake the procedures set out in Clause 7.6.2 "Mounting of the test specimen" and Clause 7.6.3 "Mounting of the abradant" of EN ISO 12947-2: 1998. The text of 7.6.2 says that "for test specimens having a mass per unit area less than 500 g.m² place the foam backing on the test specimen".	
EN ISO 14877	Abrasive blasting, categorization of PPE	To which category of PPE (according to directive 89/686/EEC) do abrasive blasting clothing of type 1(no respiratory protection), type 2 (upper part of the body) and type 3 (whole body protection, including respiratory protection) belong?	Type 1 is PPE of category II (independent of respiratory protection devices). Types 2 and 3 are category III, because they are used in combination with respiratory protection devices.	

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EN 340	Combination of clothing items	A manufacturer produces a vest, sleeves that can be attached to the vest or used separately, apron and gaiters for welders, all made of the same material. Can he submit one technical file containing designs, etc for all of them? In such a case, can each garment, separately bear the CE marking?	It is possible to submit one technical file only for all products. This depends on the intended use. If the manufacturer points out in the information leaflet that they must always be used together, then one certification shall be carried out. If not, several separate certifications are possible.	
EN 340	Comfort, practical performance testing	What is the minimum requirement to meet clauses 1.2.1.2 and 1.2.1.3 of the Basic Health and Safety Requirements?	When there is no specific assessment procedure in the relevant product standard, Annex C of EN 340:2003 or a similar assessment shall be used.	
EN 14058	Cool environments	EN 342 covers category II and III PPE, but it's not very clear if scope of EN 14058 addresses category I or II. Some garments don't meet the requirements of EN 342 (thermal insulation with manikin ≥ 0.31 m²K/W), nor these of EN 14058 (thermal resistance Rct <0.25 m²K/W). How can they be certified and classified? Or if we test the thermal insulation of fabrics according EN 31092 and we don't have the jacket to test on the thermal manikin. Is it possible to classify them according EN 14058 if the thermal insulation is higher that 0.25 m²K/W?	EN 14058 was developed for protection in cool environments (higher than -5 °C), which corresponds to cat. I PPE. However, it contains also an optional manikin test. Depending on the results of the manikin test the garment can be cat I or cat II (see tables in annex B). Results should be interpreted in connection with the rest of the standard clothing used in the test. This case is not yet foreseen in either EN 342 or EN 14058. Certification according to the directive is possible. Should be taken up at the revision of the standards. A possible alternative is ISO 9920 (to be checked)	
EN 340	Dimensional Change	Is dimensional change in clothing only related to length and width or to seams too?	At the moment only shrinkage of materials shall be tested.	
EN 340	Dimensional change, knitted materials	Knitted garments often have a shrinkage higher than 3 percent. Can these garments be certified given the real shrinkage is indicated in the information leaflet?	Dimensional changes in knitwear should be considered against the fitness for use (and the protective properties) of the item. EN 471 and prEN ISO/FDIS 11612 allow for a maximum shrinkage of 5% for knitted materials. If shrinkage exceeds 5 % the manufacturer shall provide relevant information and advice in the informative notice and labelling (taken from ISO/FDIS 11612:2004).	

based on CLC/TS 50354	Electric arc	This standard does not specify whether the test has to be carried out on a garment or on a fabric. On what should we base our choice on? The requirement depends on the material tested: In the garment test, the requirements take the behaviour of the accessories and fasteners into account (after exposure, they shall be functional) but the heat flux is not to be measured, however, in the material test (obviously) the accessories are not evaluated but the heat flux does. Which method must be carried out in order to certify an PPE against thermal hazards of an electrical arc? Which requirements are the most important in order to evaluate the protective clothing? In order to evaluate the behaviour of the accessories (and/or other materials) against the exposition of an electrical arc, it is (maybe) not enough to	The CLC/TS has been superseded by IEC 61482-1-2 since January 2007. This standard is a test method which contains provisions which can be evaluated easily and make it possible to assess the protective properties of the whole garment. Another standard IEC 61482-2 which contains product requirements is in preparation. Both fabric and garment shall be tested and evaluated. Note: an other test method is described in IEC 61482-1-2.	
EN 13911	Fire hoods, practical performance test	consider the results obtained on fabric. The paragraph 6.2 refers to annex B (a normative annex). This annex describes a practical performance test which shall be conducted with a fire-fighter equipment: firehood, clothing, breathing apparatus, helmet, and gloves. As this test is depending on the type of each equipment used and as it is the responsibility of the fire-fighter to associate the correct equipment depending a risk assessment (and not the notified body): Is it possible for a notified body to issue an EC type examination based on EN 13911 without carrying out the practical performance test defined in annex B but with a warning which explains that the fire fighter shall conduct the test before selecting a firehood?	No, as the annex B is normative, no EC type examination based on EN 13911 should be issued without carrying out the practical performance test. Compatibility of the hood with other PPE items shall be checked. It is the responsibility of the manufacturer to propose a set of PPE to be used with the hood. This set can later be extended.	

all clothing standards	Identification of materials	In test reports materials are often only referred to by a single, often commercial, reference name. In reality however this name can cover a variety of materials different by structure and weight (e.g. for fabrics) or by origin and thickness (e.g. for leather). Is it possible to have a uniform and clear "finger print designation" of materials in test reports in order to make an evaluation easier? To this purpose we propose to use the elements given above. Ex.: .aramid twill 2/1 - 270 g/m² .cow split 1.3 - 1.5 mm	A unique ref. number or name should be enough to identify the material.	
Innocuousnes s, plastic clothing (EN 340)		"Information claiming that the product is innocuous shall be checked". For materials	information on noxious substances present in the PPE. A group of noxious products is explicitly mentionned in EN 340, clause 4.2., a) to e). Their absence in the material should be proven. For further guidance, see also EU Directive 76/679 (and	
EN 340	Innocuous- ness, azo colourants	EN 340: 2003 clause 4.2 Innocuousness, paragraph (e), states that Azo colourants, which release carcinogenic amines listed in EN14362-1, shall not be detected by the method in that standard. EN14362 – 1 is the method for the	EN14362-2 should be used for synthetic fibres and CEN ISO/TS 17234: 2003 used for dyed leathers For information: . EN 14362-1 Textiles - Methods for the determination of certain aromatic amines derived from azo colorants - Part 1:	

		determination of amines in <u>natural</u> fibres. This method is not suitable for <u>synthetic</u> fibres or for <u>leathers</u> .	Detection of the use of certain azo colorants accessible without extraction EN 14362-2 Textiles - Methods for determination of certain aromatic amines derived from azo colorants - Part 2: Detection of the use of certain azo colorants accessible by extracting the fibres CEN ISO/TS 17234:2003 Leather Chemical tests Determination of certain azo colourants in dyed leathers	
EN 340	Marking, reference to general standards	Is it possible to use EN 340 (EN 420) alone, when no EN product standard is applicable and to put the EN 340 number on the marking?	Marking with the general standards EN 340 or EN 420 is not possible. If there is no product standard, then no normative reference should appear on the marking.	
EN 533	Marking, compliance with several standards	How can the marking be made when only a part of garment complies with a standard? Example: The whole garment passes EN 533 level 3 and the requirements for CPC Type 6, but only the front of the garment can be categorized in class D3 for aluminium splashes. Can D3 be put on the marking?	It is possible to mark with the number of the standard, if in the information of use is clearly explained which part of the body is protected.	
no standard	Paint booth clothing	Which requirements should be met by clothing worn in such an environment? Which standard(s) can be used to assess?	Refer directly to the Directive, as there is no appropriate standard	
EN 340-420)	Protective clothing and gloves, pictogram ionising radation	EN 420 (2003) foresees a pictogram for protective gloves against ionising radiation whereas EN 340 (2003) doesn't foresee any pictogram against this risk. How do we have to proceed for protective clothing providing protection against ionising radiations?	Use for protective clothing against ionising radiations the same pictogram as for gloves. The meaning of the pictogram shall be explained in the information for use.	
EN 343	Reference to standards	Can a garment label refer to e.g. EN 343 when the material does not fulfil the requirement for bursting strength?	One can only refer to a standard when <u>all</u> criteria of this standard are met. The pictogram is not protected and can be used	

in the absence of a standard	Test report, reference to directive	Is it allowed to mention in a test report that the tested fabric (not a garment) conforms to the safety requirements of directive 89/686?	No, the Directive addresses PPE, i.e. finished products, not materials	
several standards	Various performance levels in one garment	How can a garment be marked with different levels of performance in front and back (e.g. aluminised material in the front, and non-aluminised material in the back)?	As a general principle the "worst case" approach shall be used, i.e. the lowest level shall be announced in the marking. This shall also be done in the information leaflet, but the attention may be drawn to the higher protection levels offered by some parts of the garment, in particular if they are exposed to higher degrees of risk. The higher performance level may however be announced in the marking and in the information leaflet if no mistake on behalf of the user is possible and if the product standard does not contain specific and conflicting provisions. Examples: 1. IEC 61331-3 on X-ray protective aprons specifies that the protection levels in front and back may be different, but that both levels shall be indicated in the marking 2. EN 531 does not contain such provisions and e.g. in the case of someone working in front of an oven and wearing a long coat with an aluminized front and an open back for comfort, the protection level of the front should be	
			announced. The "flame" pictogram on the garment should then be accompanied by the "i" pictogram to draw more attention to the information leaflet.	
EN 343	Water penetration – rainwear	EN 343: 2003 states that for water penetration after cleaning (dry-cleaning and/or washing clause 5.1.3.2) the material needs to be washed 5 times prior to testing. However, if the manufacturer is claiming that the garment has a maximum number of washes / cleaning cycles should we still only clean it 5 times (as per the standard) OR should we test it for water penetration after it has been exposed to the maximum number of cleaning cycles that have been claimed by the manufacturer.	Water penetration testing shall be performed after 5 cleaning cycles, as stated in EN 343. If the manufacturer claims a number of cleaning cycles superior to 5, he shall demonstrate his claim is correct.	

all clothing standards	Water vapour resistance	Annex II,2.2 of Directive 89/686/CEE states that the PPE enclosing parts of the body, shall limit perspiration resulting from use. Is it necessary to test all kinds of clothing for water vapour resistance?	No, several other techniques (design, cooling garments, ventilation) can be used to meet that requirement	
ISO 15394	Wildland firefighting clothing	Does wildland firefighting clothing certified according to the current ISO project 15394 (for example coverall made of Nomex [®] III 185 g/sqm) belong to Category II or III	It's not the responsibility of the Notified Body to categorize the PPE. It is generally accepted that wildland firefighting clothing belongs to Category III	
	Working garments (not protective)	Are classical working garments considered as protective clothing?	A classical working garment which protects only against non-aggressive dust without any specific protection is not considered as protective clothing and is excluded from the scope of the PPE directive For a PPE intended use and the corresponding risks shall be described by the manufacturer. Sanctioning improper use is the responsibility of the market surveillance.	

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 7 "Protective Clothing against Hand-held Chain Saws" of the European Coordination of Notified Bodies in the field of PPE

Number of RfU	Revision	Reference	Keywords	Approved by Vertical Group 7	Approved by Horizontal Committee	Approved by PPE Expert Group
07-001	01	EN 381-5 Clause: 6.4	Seam strength, attachment of protective material	23/03/2005	15/06/2011	15/05/2012
07-002	01	89/686/EECArticle 10.4	Identification of the model	23/03/2005	15/06/2011	15/05/2012
07-004	01	EN 381-5 Clause: 5	Protective coverage	23/03/2005	15/06/2011	15/05/2012
07-005	01	EN 381-5 Clause: 6.4	Attachment of protective material	23/03/2005	15/06/2011	15/05/2012
07-006	01	EN 381-5 Clause: 6.4	Certification and testing of chaps	23/03/2005	15/06/2011	15/05/2012
07-009	01	EN 381	Durability of the markings	23/03/2005	15/06/2011	15/05/2012
07-010	01	EN 381	Visibility of the markings	23/03/2005	15/06/2011	15/05/2012
07-011	01	EN 381	Verification of the washing	23/03/2005	15/06/2011	15/05/2012
07-012	01	EN 381	Height of footwear	23/03/2005	15/06/2011	15/05/2012
07-013	01	EN 381	Chaps	23/03/2005	15/06/2011	15/05/2012
07-014	01	EN 381-10 Clause: 9.4	Attachment of protective material in jackets	23/03/2005	15/06/2011	15/05/2012
07-016	01	EN 381-7 Clause: 4.4	Protective gloves, attachment of protective material	23/03/2005	15/06/2011	15/05/2012

Note: Recommendation for Use sheets which deal with withdrawn and / or superseded standards and which no longer apply to new certifications are published as reference for previous files.

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Annex: Article: Clause: 6.4	
Key words: Seam strength, attachment of protective material	
Question: Should the seam strength test which is applied to design A and design B leg protectors apply also to design design C leg protectors the protective material is not attached to the out material of the trousers along the legs, but the joined together with one or two seams running parallel to the leg. EN 381-5 does not require the strength of these seam the risk of a failed seam is a lack of protection.	protective material is
Solution:	
VG7 proposes that seams joining the protective material in design C leg protectors are subjected to the seam strength lines of EN 381-2:1995 clause 9 with a minimum requirement of 200 N.	tests. Test along the
Sent for information to: Momentum members of the VG of ther(s) VG NG HC (2) TC (3) SC (4)	other (5)
(3): (5):	



CNB/P/07.002
Revision
Language: E

Number of pages: 1	Date: 23/3/2005		App	roval by :	Approved on :
Origin : Vertical Group 7 'Protective Clothing against Hand-held Chain Saws'		\boxtimes	Vertical Group	20/09/1996 & on the23/03/2005	
			\boxtimes	Horizontal Committee Standing Committee	.15/06/2011 15/05/2012
Question related to: PPE Direct	ive 89/686	EN/prEN:			Other:
Annex:	Article: 10.4	Clause:			
Key words: Identification of the r	model				
Question:					
Certificates shall incorporate the style and article number to ident	e descriptions and drawings necessalify the approved model?	ry for the ide	entific	cation of the model. What	is necessary besides make,
Solution:					
Certificates shall include enough	n information to relate the article num	ber to the in	ıform	ation in the technical file.	
	nembers of the VG	/G ⊠ H			C (4)
(3):			(5)):	



CNB/P/07.004
Revision
Language: E

Number of pages: 1	Date: 23/3/2005	App	proval by :	Approved on :	
Origin : Vertical Group 7 'Protective Clothing against Hand-held Chain Saws'		in 🖂	Vertical Group	20/09/1996 & on the	
			Horizontal Committee Standing Committee	15/06/2011 15/05/2012	
Question related to:		EN/prEN: 381	-5	Other:	
Annex:	Article:	Clause: 5 Ergo	onomic considerations		
Key words: Protective co	overage				
•	s concerning the protective area below the ence beginning "Between the crotch and fl	-	e bottom of the zip and the	e crotch point.)?	
	ave gaps in the protection bigger than the	,	rement		
Solution:					
Figure 1 of EN 381-5 shows that the gap in the protective material goes from 30 mm at the zip to 0 mm at the crotch. The gap at the zipper shall be no more than 30 mm. Underneath the zipper, the protective material must meet or overlap (i.e. gap in protective material is 0 mm) Leggings must be joined at least down to the crotch.					
	members of the VG other(s) \((3):		2)	C (4)	



CNB/P/07.005
Revision
Language: E

Number of pages: 1	Date: 23/3/2005		Approval by :	Approved on :	
Origin: Vertical Group 7 'Protecti Saws'	ve Clothing against Hand-held Cha	in	✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	20/09/1996. & on the	
Question related to:		EN/prEN:	381-5	Other:	
Annex:	Article:	Clause: 6.	4	u	
Key words: Attachment of prote	ective material	I			
Question:					
What does the following mean in along the leg"	terms of attachment of protective m	naterial to tro	ouser legs "along the edg	es of the protective padding	
Is it allowed to have the protective	e material attached by a series of st	titches parall	el to the leg?		
Solution:					
	A and B leg protectors (EN 381-5) roups of stitches no further apart the				
Sent for information to:	embers of the VG other(s) \	/G ⊠ H	C (2) TC (3) S	SC (4)	
(3):		,o 🖂 11	(5):	OC (T) LI OUICI (J)	



CNB/P/07.006 Revision Language: E

Number of pages: 1	Date: 23/3/2005		Approval by :	Approved on :
Origin : Vertical Group 7 'Protecti Saws'	ve Clothing against Hand-held Chai	n	✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	20/09/1996 & on the 23/03/2005 15/06/2011 15/05/2012
Question related to:		EN/prEN: 3	381-5	Other:
Annex:	Article:	Clause: 6.4	4	
Key words: Certification and tes	sting of chaps			
Question:				
How should chainsaw protective	chaps be tested and certified?			
Solution:				
The manufacturer must provide in The manufacturer should not man		the chaps in	wear	
Sent for information to:	embers of the VG	′G ⊠ H0	C (2) TC (3) S (5):	SC (4) other (5)



CNB/P/07.009
Revision
Language: E

Number of pages: 1	Date: 23/3/2005	Approv	val by :	Approved on :
Origin : Vertical Group 7 'l Saws'	Protective Clothing against Hand-held Cha		ertical Group orizontal Committee landing Committee	
Question related to:		EN/prEN: 381		Other:
Annex:	Article:	Clause:		
Key words: Durability of	the markings			
Question:				
How shall the durability of	the markings be assessed?			
Solution:				
Test samples shall be ma according to the standard	rked according to EN 381 and EN 340. Th	e durability of the ma	arkings can then be te	sted during the pre-treatment
according to the ctandard				
Sent for information to:	members of the VG other(s)	VG ⊠ HC (2)	☐ TC (3) 🖂 S	C (4)
	(3):	(5):		



CNB/P/07.010
Revision
Language: E

Number of pages: 1	Date: 23/3/2005		Approval by :	Approved on :
Origin : Vertical Group 7 'I Saws'	Protective Clothing against Hand-held Cha	ain	✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	
Question related to:		EN/prEN:	381	Other:
Annex:	Article:	Clause:		
Key words: Visibility of the	he markings			
Question:				
Where should the product	marking be situated?			
Solution:				
The pictogram should be	e the garment in conjunction with other pro on the outside of the garment and should grable as assessed during the pre-treatme	be visible.	g at the waist or collar. The	markings have to be sewn on.
Sent for information to:		VG ⊠ H	C (2)	CC (4)



CNB/P/07.011
Revision
Language: E

Council Committee 15/06/2011 15/06/2011 15/06/2011 15/06/2011 15/06/2011 15/06/2011 15/06/2012 15/06/	Number of pages: 1	Date: 23/3/2005		Approval by :	Approved on :
Annex: Article: Clause: Key words: Verification of the washing Ouestion: How many times shall test samples be washed (or dry-cleaned) before testing? Solution: Test samples shall be washed at least five times before testing. If the manufacturer has claimed, for example, that the garment can be washed 40x, this shall be verified by washing the garment 40x before testing. The notified body shall examine the instructions supplied by the manufacturer for information relating to ageing and for the maximum number of washes before the garment should be discarded.					15/06/2011
Cuestion: How many times shall test samples be washed (or dry-cleaned) before testing? Solution: Test samples shall be washed at least five times before testing. If the manufacturer has claimed, for example, that the garment can be washed 40x, this shall be verified by washing the garment 40x before testing. The notified body shall examine the instructions supplied by the manufacturer for information relating to ageing and for the maximum number of washes before the garment should be discarded.	Question related to:		EN/prEN: 3	81	Other:
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number of washes before the garment should be discarded.				er has claimed, for example,	that the garment can be
Sont for information to \square members of the NC \square other (c) NC \square			nufacturer for	information relating to agein	g and for the maximum
Sont for information to: \square morehors of the NC \square other(c) NC \square					
Sont for information to M members of the MC \square other(c) MC M					
Sont for information to M members of the MC \square other(c) MC M \square M \square M \square					
Sont for information to: \square mambers of the VC \square other(c) VC \square					
Sont for information to: Managers of the VC ather(c) VC MUC(2) TC(2) MSC(4) To the c(f)					
Sont for information to: Managers of the VC ather(c) VC MUC(2) TC(2) MSC(4) To the c(f)					
Sont for information to: M members of the VC					
Sent for information to: \square members of the VG \square other(s) VG \square HC (2) \square TC (3) \square SC (4) \square other (5) (3):	Sent for information to:	members of the VG other(s) V (3):	/G 🛚 HO		GC (4)



CNB/P/07.012 Revision Language: E

Number of pages: 1	Date: 23/3/2005		Approval by :	Approved on :
Origin : Vertical Group 7 'Prot Saws'	tective Clothing against Hand-held Cha	in	✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	
Question related to:		EN/prEN:	381	Other:
Annex:	Article:	Clause:		
Key words: Height of footwo	еаг			
Question:				
Can chainsaw protective foot	wear with an upper height lower than 14	95 mm be ce	ertified?	
Solution:				
Such footwear can be certifie	d using the directive.			
CEN TC 161 shall take this in	nto account when revising the standard.			
Sent for information to: (3)	members of the VG other(s) \	/G ⊠ H	IC (2) TC (3) X	SC (4)



CNB/P/07.013
Revision
Language: E

~					
Number of pages: 1	Date: 23/3/2005		Approval by :	Approved on :	
Origin: Vertical Group 7 'Protective Clothing against Hand-held Chain Saws'		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee			
Question related to:		EN/prEN:	381	Other:	
Annex:	Article:	Clause:			
Key words: Chaps					
Question:					
How can chaps be certifie	d?				
Solution:					
same size. The chaps sha mm. Chaps shall stay in p ankle. The strength of the	e same as for trousers i.e. 20 m/s. The mi ill be sewn together at the front in the fly re lace during use. There shall be adjustable attachment of straps to the chap shall be a straps to the correct tension and advice or	gion. The m straps at the at least 200	aximum width of the unproted e upper thigh, above the knee N. The instructions shall inclu	ted area at the fly shall be 30, below the knee and at the de donning and doffing	
Sent for information to:	members of the VG other(s) V	/G ⊠ H	C (2) TC (3) S	C (4)	
	(3):	_	(5):		



CNB/P/07.014
Revision
Language: F

Number of pages: 1 Origin: Vertical Group 7 'Protective Clothing against Hand-held Chain Saws' Origin: Vertical Group 7 'Protective Clothing against Hand-held Chain Saws' Vertical Group 23/03/2005	V so
Saws'	V so
Annex: Article: Clause: 9.4 Key words: attachment of protective material in jackets Question: Clause 9.4 states that the test can be stopped when the force is above 500 N. However part 11 requires a minimum strength of 200 N surely the test can be stopped once it has been established that the strength of attachment is >200 N	√ so
Clause 9.4 states that the test can be stopped when the force is above 500 N. However part 11 requires a minimum strength of 200 N surely the test can be stopped once it has been established that the strength of attachment is >200 N	√ so
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surely the test can be stopped once it has been established that the strength of attachment is >200 N	N so
Solution:	
Solution:	
It is sufficient to establish that the attachment strength is > 200 N (for both EN 381-2 and EN 381-10)	
Sent for information to: Members of the VG other(s) VG MHC (2) TC (3) SC (4) other (5) (3): (5):	



CNB/P/07.016
Revision
Language: F

		1				
Number of pages: 1	Date: 23/3/2005		Appr	oval by :	Approved on :	
Origin: Vertical Group 7 'Protective Clothing against Hand-held Chain Saws'		\boxtimes 1	Vertical Group Horizontal Committee Standing Committee	23/03/2005 		
Question related to:		EN/prEN: 381 part 7 Other:				
Annex:	Article:	Clause: 4.	4		u	
Key words: Protective gloves	s, attachment of protective material					
1						
Question:						
	ctive material should be permanently a	ttached to th	ne alo	ve. How should the pro	tective material be attached	
and is it sufficient to attach it a			- 3.5			
Solution:						
The Protective material in glov	es should be attached (e.g. stitched) a	round all for	ur side	es.		
Sent for information to: \square	members of the VG $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	′G ⊠ H	C (2)	☐ TC (3) 🖂 S	SC (4)	
(3):			(5):			

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 8 "Lifejackets" of the European Coordination of Notified Bodies in the field of PPE

No.	Version	Reference	Key words	Approved by Vertical Group 8	Approved by Horizontal Committee	Approved by PPE Expert Group
08.002	04	ISO 12402-5:2006, ISO 12402-5:2006+A1:2010	Snorkel Vest	November 2007	23/10/2012	12/03/2013
08.003	04	ISO 12402-7:2007, ISO 12402-7:2007+A1:2011, clause 4.1.6.4, 4.9, table 13	Inflation chamber material	November 2007	23/10/2012	12/03/2013
08.004	03	ISO 12402-7:2007, ISO 12402-7:2007+A1:2011, clause 4.2, 4.3	Fabric and sewing thread	October 2009	23/10/2012	12/03/2013
08.005	05	EN ISO 12402-8:2006, EN ISO 12402- 8:2006+A1:2011	Sprayhood clear material	March 2015	01/07/2015	03/11/2015
08.006	03	ISO 12402-6:2006, ISO 12402-6:2006+A1:2010, clause 5.5, 5.5.1, 6.5	Proposal for 50N flotation suits	August 2010	23/10/2012	12/03/2013
08.007	03	EN ISO 12402-7:2007, ISO 12402-7:2007+A1:2011, clause 4.7	Hardware	August 2010	23/10/2012	12/03/2013
08.009	03	EN ISO 12402- 5:2006+A1:2010 and ISO 12402-6:2006+A1:2010, clause 5.3.4	Buoyancy requirements and testing procedures for 2 piece 50N flotation suits	August 2010	23/10/2012	12/03/2013
08.010	03	EN ISO 12402- 7:2007+A1:2011, clause 4.8, table 12	Inherently buoyant material - thickness of foam	September 2010	23/10/2012	12/03/2013
08.011	03	EN ISO 12402-4:2006, ISO 12402-4:2006+A1:2010, clause 5.6.3.1	In water performance - faceplane	September 2010	23/10/2012	12/03/2013
08.012	03	EN ISO 12402-6:2006, ISO 12402-6:2006+A1:2010, clause 5.2, 5.2.4 & 6.3	White water sports devices	February 2011	23/10/2012	12/03/2013
08.013	03	EN ISO 12402- 7:2007+A1:2011, clause 4.2 and table 1, 4.4 and table 5	Webbing and thread requirements	February 2011	23/10/2012	12/03/2013
08.014	03	ISO 12402-7:2007+A1:2011, clause 4.1.6.4, 4.3.3	Colour and illumination issues	April 2010	23/10/2012	12/03/2013
08.015	03	ISO 12402-7:2007+A1:2011, clause 4.9 and table 13	Inflation chamber material	April 2010	23/10/2012	12/03/2013
08.016	02	EN ISO 12402- 9:2006+A1:2011	Buoyancy test method	01/03/2013	01/07/2015	03/11/2015
08.017	02	EN ISO 12402- 9:2006+A1:2011	Lifting loop load test	01/03/2013	01/07/2015	03/11/2015
08.018	02	EN ISO 12402- 6:2006+A1:2010	Constant wear devices	01/03/2013	01/07/2015	03/11/2015
08.019	02	EN ISO 12402- 7:2007+A1:2011	Oral inflation systems	01/03/2013	01/07/2015	03/11/2015
08.022	03	EN ISO 12402-7+A1:2011	IRM oil, foam testing	01/03/2013	01/07/2015	03/11/2015
08.023	02	EN 13138-1, -2, -3:2008	Colour requirements	01/03/2013	01/07/2015	03/11/2015

Status: November 2015

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 8 "Lifejackets" of the European Coordination of Notified Bodies in the field of PPE

No.	Version	Reference	Key words	Approved by Vertical Group 8	Approved by Horizontal Committee	Approved by PPE Expert Group
08.026	02	EN ISO 12402- 9:2006+A1:2011	Inflation tests	31/01/2014	01/07/2015	03/11/2015
08.027	02	EN ISO 15027-1:2012	Resistance to illumination	31/01/2014	01/07/2015	03/11/2015
08.028	03	EN ISO 15027-1:2012	Thermal testing	March 2015	01/07/2015	03/11/2015
08.032	01	EN ISO 12402- 2:2006+A1:2010, EN ISO 12402-3:2006+A1:2010	Face plane angle and torso angle	March 2015	01/07/2015	03/11/2015

Note: Recommendation for Use sheets which deal with withdrawn and / or superseded standards and which no longer apply to new certifications are published as reference for previous files.

Status: November 2015

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CNB/P/08.002
Revision 04
Language: E

Number of pages: 1	Date: November 2007		Approval by :	Approved on :
Origin: VG8			☑ Vertical Group☑ Horizontal Committee☑ Standing Committee	November 2007 23.10.2012 12.03.2013
		2402-5:2006 and ISO 06+A1:2010	Other:	
		Clause:		
Key words: Snorkel Vest.				
Question:				
	the testing requirements of 'Snorkel	Vests'.		
Solution:				
buoyancy aid in accordance with	a Buoyant Device for use where he ISO 12402-5 for level 50 devices.			
Sent for information to:	embers of the VG	/G ⊠ H	C (2) TC (3) S (5):	SC (4)



CNB/P/08.003 Revision 04 Language: E

Number of pages: 1	Date: November 2007		Approval by :	Approved on :
Origin: VG8			☑ Vertical Group☑ Horizontal Committee☑ Standing Committee	November 2007 23.10.2012 12.03.2013
		2402-7:2007 and ISO 007+A1:2011	Other:	
		Clause: 4.	1.6.4, 4.9, Table 13	u
Key words: Inflation Chamber Ma	aterial			
Question:				
If a bladder is covered when un-i	nflated should accelerated weather	be undertak	en on the bladder material?	
Solution:				
accelerated weathering as it is no	material which is covered during not exposed to sunlight under normal	use.		
Sent for information to:	embers of the VG	′G ⊠ H	C (2) TC (3) S (5):	SC (4)



CNB/P/08.004 Revision 03 Language: E

Number of pages: 1	Date: Oct 2009		Approval by :	Approved on :
Origin: VG 8			☑ Vertical Group☑ Horizontal Committee☑ Standing Committee	October 2009 23.10.2012 12.03.2013
Question related to: Directive	89/686/EEC		12402-7:2007 and ISO Other: 2007+A1:2011	
		Clause: 4.	2 & 4.3	
Key words:				
Fabric & Sewing Thread				
Question				
Is it necessary to test each co	our in a range of the same fabric and	sewing threa	id?	
Solution:				
It was agreed by VG8 - If a fabric/thread manufacturer has a range of colours then it is acceptable to test the brightest and the darkest colour and then test a sample of the colours in between these two, the number of additional colours tested is a decision for the Notified Body to make but it should representative of the range being produced.				
This agreement however does	not apply to Rescue Devices.			
Sent for information to:	members of the VG other(s) \	/G ⊠ H	C (2) TC (3) S	C (4) other (5)
(3):		- <u>F</u> 3 11	(5):	5



CNB/P/08.005	
Revision 05	
Language: E	

Number of pages: 1	Date: 13.02.2015		Approval by :	Approved on :	
Origin: VG8			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	March 2015 01/07/2015 03/11/2015	
Question related to: Directive	89/686/EEC		2402-8:2006 and ISO 006+A1:2011	Other:	
		Clause: 5.	5.1		
Key words: Sprayhood clear material					
Question: In ISO 12402-8:2006+A1:2011, Clause 5.5 for Sprayhoods. There is a requirement to have the clear material of a sprayhood to be compliant with ISO 12402-7. However, there is no requirement specifically for clear material in ISO 12402-7:2007+A1:2011. There is a requirement in Table 21 for Window material but this is specifically for viewing an inflation mechanism. These requirements are also excessive to what the requirement for clear material on a sprayhood would be (e.g. minimum thickness is excessive for a sprayhood window and could cause packing difficulties).					
Solution: It was agreed that in paragraph 4, line 1 of clause 5.5.1 in ISO 12402-8:2006+A1:2011 the words 'compliant with ISO 12402-7' is not relevant for the sprayhood materials and the below compliance criteria shall be used:					
A sprayhood should comply with all requirements of ISO 12402-8 and not affect the device meeting all requirements when tested for in water performance according to ISO 12402-9, clause 5.6.				quirements when tested for in	
	FD in accordance with ISO 12402-9:20 hould show no sign of damage such				
Sent for information to: (3):		′G ⊠ H	C (2) X TC (3) X 5	SC (4)	



CNB/P/08.006	
Revision 03	
Language: E	

Number of pages: 1	Date: 10.08.2010		Approval by :	Approved on :	
Origin: VG8			☑ Vertical Group☑ Horizontal Committee☑ Standing Committee	August 2010 23.10.2012 12.03.2013	
Question related to: Directive 89/	686/EEC		ISO 12402-6:2006 and ISO 006+A1:2010	Other:	
		Clause: 5.	Clause: 5.5, 5.5.1, 6.5		
Key words:					
VG8 Proposal for 50N Flotation S	duits (EN ISO 12402-6)				
Question:					
	esign and performance of 50N flota r testing and marking of 50N Flotati		mpared to standard 50N buo	yancy aids, what are the	
Solution:					
When testing of one and two piece	e flotation suits these should be tes	sted as spec	ial purpose devices under IS	O 12402-6:2006+A1:2010:	
Additional requirements to be incl	luded in ISO 12402-6 as an addition	nal clause s	pecifically for this type of suit	are as follows:	
Flotation suits tested in accordance with ISO 12402-5:2006+A1:2010 for PFD's level 50 shall be considered as Special Purpose Devices and tested in accordance with the requirements of ISO 12402-5:2009+A1:2010 and the test methods specified in ISO 12402-9:2006+A1:2011. In addition to the tests in ISO 12402-5:2006+A1:2010, 5.6 the Encumbrance assessment test in clause 5.5.1 should be carried out.				d in ISO 12402-	
5.5.1 Encumbrance Assessment During the in water performance testing EN ISO 12402-5:2006+A1:2010 (Clause 5.6.3) the test subjects shall emerge from the water by climbing a distance of 2500mm up and down a vertical ladder, the suit shall drain sufficiently to avoid causing encumbrance to the test subjects.					
Additionally 50N Suits should be marked in accordance with the following statement:					
6.5 50N Flotation Suits Each PFD shall be marked with the details in 6.2 and the following:					
"When a 50N Suit is worn and used away from a bank or shore where help or means of rescue are NOT close at hand, the suit should be worn in conjunction with a Lifejacket, performance level 275."					
This information should be considered as state of the art until the official amendments are published.					
It is confirmed that this is the c and these papers are in the pro	ommon sense of the experts of Vocedures of CEN and ISO.	/G 8 and als	so those responsible for the	e Standardisation of PFD's	
Sent for information to:	embers of the VG	/G ⊠ H	C (2) TC (3) S	SC (4)	
(3):		<u></u>	(5):	(7)	



CNB/P/08.007
Revision 03
Language: E

Number of pages: 1	Date: 10.08.2010		Approval by :	Approved on :
Origin: VG8			☑ Vertical Group☑ Horizontal Committee☑ Standing Committee	August 2010 23.10.2012 12.03.2013
Question related to: Directive 89	/686/EEC		EN ISO 12402-7:2007 and -7:2007+A1:2011	Other:
		Clause: 4.	7	
Key words:		•		
Hardware				
Question: The requirements and methods of closure and not a closure test on	when testing hardware according to ly (as intended).	clause 4.7 a	are based on specific testing	of combination of webbing and
Solution: The intention of the test must be to verify the actual strength of the buckles after several exposures.				
The following solution is recomm	ended:			
No buckle may fail due to webbing breakage or slippage. If failure occurs due to the webbing it is recommended that another type of webbing is used for the test. The slippage properties for the specific webbing and closure combination are verified in clause 5.5.1, Mechanical Properties Test and partly				
in clause 5.6, Human Subject Pe	mormanice rest.			
Sent for information to: \boxtimes m (3):	nembers of the VG	/G ⊠ H	C (2) TC (3) S (5):	SC (4)



CNB/P/08.009
Revision 3
Language: E

Number of pages: 1	Date: 11/08/2010	Approval by :	Approved on :	
Origin: VG 8			. #F. 4.44 4.1.	
- J		☑ Vertical Group☑ Horizontal Committee	August 201023.10.2012	
			12.03.2013	
Question related to: Directive	e 89/686/EEC	EN ISO 12402-5:2006+A1:2010 and ISO 12402-6:2006+A1:2010	Other:	
		Clause: 5.3.4	5.3.4	
Key words:		11		
Buoyancy requirements and	testing procedures for 2 piece 50N flota	ation suits		
Question :				
If a manufacturer w requirements as in-	rishes to test and certify a 2 piece flotati	June 2010 with regards to testing of 2 pie ion suit, should the jacket and trousers me either piece being worn as a single item, o	eet the minimum buoyancy	
2. Should the individu	al pieces be tested in accordance with	the in water performance requirements in ers are tested alone, and the combination		
Solution:				
·	•	ancy requirements according to ISO 12402 nere is always the possibility that the end of		
	n warm/ cold temperatures.	lere is always the possibility that the end t	user will remove either the	
	piece set must meet the in water require dual garments and as a combination of	ments of ISO 12402-5:2006+A1:2010. Th a 2 piece set.	e requirements must be met	
Sent for information to: (3)		/G ⊠ HC (2) □ TC (3) ⊠ S (5):	SC (4)	



CNB/P/08.010
Revision 3
Language: E

<u> </u>			
Number of pages: 1	Date: September 2010	Approval by :	Approved on :
Origin: VG 8		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	September 2010 23.10.2012 12.03.2013
Question related to: Directiv	/e 89/686/EEC	EN ISO 12402-7:2007+A1:2011	Other:
		Clause: 4.8, Table 12	
Key words: Inherently buoyant material	– Thickness of foam		
This can be a potential prob tested according to EN ISO It is FORCE Technology's of thicker layers.	experience that the thinner layers of foam foam thickness which thickness have not	a 5 mm foam but only the foam in the the are more likely to fail the tests mentioned	ed in EN ISO 12402-7 than
Solution:			
EN ISO 12402-7:2007+A1:2	buoyant material of the same thickness a 2011, clause 4.8 or be covered by a rang y tested in accordance with EN ISO 1240	e according to EN ISO 12402-7:2007+A 2-7:2007+A1:2011, clause 4.8.	1:2011, clause 4.1.2 if the
_	members of the VG other(s) V		SC (4)
(;	3):	(5):	



CNB/P/08.011
Revision 3
Language: E

Number of pages: 1	Date: 10.09.2010		Approval by :	Approved on :		
Origin: VG 8		☑ Vertical Group☑ Horizontal Committee☑ Standing Committee	September 2010			
Question related to: Directive 89/	686/EEC	EN ISO 124 4:2006+A1	102-4:2006 and ISO 12402- 2010	Other:		
		Clause: 5.6	.3.1			
Key words: In water performance - faceplane	1					
and face plane (min 20°).	The standard ISO 12402-4:2006+A1:2010 has minimum in water requirements for Freeboard (min 80mm), Body angle (min 30° degrees)					
Solution:						
The requirement for face plane or requirements of a 100N device un	n a 100N device is replaced with the nder EN 395:1995.	e requiremer	nt below in order to bring it in	line with the existing		
Requirement for 100N devices: The face plane must be positiv	e.					
Sent for information to:	embers of the VG other(s) \	/G ⊠ H	C (2)	C (4)		



CNB/P/08.012
Revision 03
Language: E

Nur	nber of pages: 1	Date: 4th February 2011		Approval by :	Approved on :
Origin: VG8			☑ Vertical Group☑ Horizontal Committee☑ Standing Committee	February 2011 23.10.2012 12.03.2013	
Que	estion related to: Direc	ctive 89/686/EEC	EN/prEN: EN IS 6:2006+A1:2010	O 12402-6:2006 and ISO 124)	02- Other:
			Clause: 5.2., 5.2	2.4 & 6.3	
Key	words: White water	sports devices			
Que	estion:				
	The following points The current require strength requirement exceeds any strengt What are the minimum. There needs to be a 'Commercial white release mechanism who frequent the spexperience or similar would be relevant for	cation of the testing requirements need to be clarified: ment for shoulder strength of the nts in ISO 12401:2009/EN1095:1 th a buoyancy aid would be able to um strength requirements of such a clear distinction between device water service' and the relevant a and are intended for use in white ort, and not commercial white water and have no training/familiarity or each of these devices with regaring requirements are relevant for s	ese devices (ISO 124 1998 and there is or to withstand. devices? es intended for gener additional tests require e water rafting are or er service i.e. end us by with the sport. It n and to additional testin	202-6, Clause 5.2.2) is not clearly a dynamic strength test in all white water use, i.e. recreatined for each. E.g. some devolved intended for recreational users who are provided with these eeds clarifying which parts of	early stated as it refers to the in ISO 12401:2009 which far ational white water rafting and vices that incorporate a quick se i.e. experienced end users se devices whilst on a 'one off'
Sol	ution:				
The	e following proposal is	recommended:			
1.	Horizontal and ver	equirement in ISO 12401:2009 tical strength to be increased to 00N and vertical strength to be	that of a lifejacket		
2.					
	For 'Commercial w	hite water devices' all the tests	in Clause 5.2.4 sho	uld be applied and the addit	ional marking in Clause 6.3.
Ser	nt for information to:		other(s) VG 🛛 🖂 F	HC (2)	SC (4)



CNB/P/08.013
Revision 03
Language: E

	* * *		RECOMMENDATION	SR 332	
Number of pages: 1 Date: 4 th Februar		ry 2011	Approval by :	Approved on :	
Origin: VG8			☑ Vertical Group☑ Horizontal Committee☑ Standing Committee	February 2011 23.10.2012 12.03.2013	
Que	estion related to: Direc	tive 89/686/EEC	EN/prEN: EN ISO 1240	2-7:2007+A1:2011	Other:
			Clause: 4.2 and Table 1	, 4.4 and Table 5.	
Key	words: Webbing and	Thread requirements			
Que	estion:				
1.		and structural webbings i ement after the exposure		O 12402-7:2007 and EN ISO 1240 g still relevant?	02-7:2007+A1:2011 is the
2.	The current sample length requirement for structural webbings of 1200 mm is posing a problem for exposing the samples when placed in the accelerated weathering chambers. Most typical accelerated weathering chambers have a specimen mount exposing an area of approximately 100 mm x 50 mm. Therefore is it necessary to have such a long sample length?				
Solu	ution:				
1.	No. If a webbing or thread has a tensile strength which far exceeds the minimum requirement in accordance with ISO 12402-7:2007+A1:2011 after standard conditioning, but then does not retain 60% of the tensile strength following the accelerated weathering exposure, it is unfair to fail that sample if the tensile strength is still higher than the minimum requirement prescribed in the standard. It was agreed that these samples should not be classed as a fail as the tensile strength is still greater than the minimum tensile strength requirement. It was therefore proposed that the requirements should be changed in Table 1 for sewing thread and Table 5 for webbings to state a minimum requirement following the accelerated weathering exposure instead of retaining 60% strength as follows: For sewing thread in Table 1 – Single strand breaking: Minimum requirement following standard conditioning = 25N Minimum requirement following accelerated weathering = 15N For structural webbing in Table 5: Minimum requirement following standard conditioning = 1600N Minimum requirement following accelerated weathering = 960N				
2.		e is to be long enough to		igth requirements in accordance of the clamps of	
Sen	t for information to:	members of the VG	other(s) VG	☐ HC (2) ☐ TC (3) ☐ S	C (4)
		(3):		(5):	



CNB/P/08.014				
Revision 3				
Language: E				

Number of pages: 1	per of pages: 1 Date: April 2010		Approval by :	Approved on :
Origin: VG 8			☑ Vertical Group☑ Horizontal Committee☑ Standing Committee	April 2010
Question related to: Directive 89/0	686/EEC	ISO 12402-	-7:2007+A1:2011	Other:
		Clause: 4.1	.6.4 and 4.3.3	
Key words:				
Colour and illumination issues				
Question :				
	variation of results between test labor has been suggested that there sho table?			
Solution:				
Yes. A ±5% tolerance should be	used for the tests prescribed in ISO	12402-7 Cla	auses 4.1.6.4 and 4.3.3.	
Sent for information to:	embers of the VG	′G ⊠ H(C (2) TC (3) (5):	SC (4)



CNB/P/08.015					
Revision 3					
Language: E					

Number of pages: 1	Date: April 2010		Approval by :	Approved on :	
Origin: VG 8		☑ Vertical Group☑ Horizontal Committee☑ Standing Committee	April 201023.10.201212.03.2013		
Question related to: Directive 8	89/686/EEC	ISO 12402	2-7:2007+A1:2011	Other:	
		Clause: 4.	.9 & Table 13		
Key words:					
Inflation Chamber Material					
Question :					
Where an inflation chamber material has previously been tested and passed all of the relevant sections of Clause 4.9 and Table 13, and only a change in colour of textile has occurred, is it necessary to repeat all the tests in Clause 4.9 Table 13 on the additional colour?					
Solution:					
No. It is only necessary to repeccolour: 4.9.2.1 Tensile strength test 4.9.2.2 Trapezoid tear strength	eat the following tests on the additional	l colour as t	hese are the tests that may b	e affected by the change of	
Sent for information to: (3):	members of the VG	/G ⊠ H	IC (2) TC (3) S (5):	SC (4)	



CNB/P/ 08.016 Revision 02 Language: E

Number of pages: 1	Date: 05.02.2013		Approval by :	Approved on :	
Origin: VG8			✓ Vertical Group✓ Horizontal Commit		
0 " 11 11 5" " 001	000/550	II			
Question related to: Directive 89/	686/EEC		2402-9:2006+A1:201	1 Other:	
		Clause: 5.5.9, 5.	5.9.3		
Key words:					
Buoyancy test method					
Question:					
inflation (or 1.4 kPa ± 0.1 kPa, if	orally inflated). The PFD shall formed with the inflatable PFI	I then be enclosed inflated to its inte	d in the cage attached to ended working pressure	to ensure it is representative of the	of
Solution:					
The following method should be u	The following method should be used when testing inflatable PFD's:				
Proposed Method:					
To determine the working pressu pull cord. The PFD shall be left for				and activated by pulling the manual ecorded.	
This should be repeated a total or	f 3 times.				
The working pressure of the Infla	•		·		
The 24h buoyancy test is then pe	rformed with the PFD chamb	er inflated by air to	the determined workin	g pressure.	
Sent for information to:	embers of the VG	er(s) VG 🛮 🖾 F	IC (2) X TC (3) (5):	SC (4) □ other (5)	



CNB/P/ 08.017 Revision 02 Language: E

Number of pages: 1	Date: 05.02.2013		Approval by :	Approved on :
Origin: VG8		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.01/03/2013 .01/07/2015 .03/11/2015	
Question related to: Directi	ve 89/686/EEC	EN/prEN: ISO 1	2402-9:2006+A1:2011	Other:
		Clause: 5.5.2.4		
Key words: Lifting Loop load test				
	011 the time for the load to be appl maintained for 30 min, if not specifi ne to be applied?		n whereas under ISO 12402 P	arts 2-4:2010 under clause 5.5
Solution:				
The load time for the lifting	loop strength test should be 30 min	for lifejackets tes	ted in accordance with ISO 124	02 Parts 2-4:2010.
	members of the VG oth (3):	er(s) VG 🛭 🖾 H	C (2)	(4)



CNB/P/ 08.018 Revision 02 Language: E

Number of pages: 1	Date: 08.06.12	Date: 08.06.12		Approved	on:
Origin: VG8			☑ Vertical Group☑ Horizontal Comm☑ Standing Committee		
Question related to: Directive 89/6	686/EEC	EN/prEN: ISO 1	2402-6:2006+A1:20	0 Other:	
		Clause: n/a		-	
Key words:					
Constant wear devices					
Question:					
Test Houses have been receiving due to the increase in Wind Farm What would be the testing require	Activity. Such devices are a				rrest Harness
Solution:					
Testing of such devices will be un	der ISO 12402-6+A1:2010 as	s special purpose	devices.		
PFD's must meet the requirement (current valid versions of EN 341,					
This type of device is to be exemp	ot from the donning test.				
Sent for information to:	embers of the VG	er(s) VG 🛛 H	C (2)	SC (4) other	er (5)



CNB/P/ 08.019 Revision 02 Language: E

Number of pages: 1	pages: 1 Date: 08.06.12		Approval by :	Approved on :
Origin: VG8	Origin: VG8		☑ Vertical Group☑ Horizontal Committee☑ Standing Committee	
Question related to: Directive	e 89/686/EEC	EN/prEN: ISO 1	2402-7:2007+A1:2011	Other:
		Clause: 4.11.1.3		
Key words:				
Oral inflation systems				
Question:				
Paragraph 6 under clause 4	.11.1.3 for Oral inflation systems s	tates:		
'It shall not be possible to lo mechanism open.'	ck an oral inflation mechanism in t	he open or closed	position. A friction fit dusk cap	shall not be used to lock the
Question: Is it possible to te	st a PFD which includes a lockabl	e oral inflation med	hanism as a Part 6, Special pu	pose device?
Solution:				
Yes, but this should be limite	ed to specific applications which a	re only to be used	by specially trained persons.	
Sent for information to: (3	members of the VG oth	er(s) VG 🛭 🖾 H	C (2)	(4) other (5)



CNB/P/ 08.022 Revision 03 Language: E

Number of pages: 1	Date: 17.01.13			Approval by :	Approved on :
Origin: VG8				✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.01/03/2013 .01/07/2015 .03/11/2015
Question related to: Directive	39/686/EEC	EN/prEN	I: EN IS	O 12402-7+A1:2011	Other:
		Clause:	4.8.2.7		
Key words: IRM Oil, Foam testing					
Question: 1. In clause 4.8.2.7 Oil resistaremoved from existing tables of 2. What compliance criteria shexposure?	of ISO 12402-7:2007+A1:2	2011. Is the use	of ASTM	Reference Oil No. 2 still to	·
Solution:					
 Replace ASTM Reference Oil No.2 with Diesel Fuel according to EN 590 (current valid version) to be consistent with exposures throughout the standard. The current compliance criteria in 4.8.2.7 to test the tensile strength of the foam following the exposure is no longer relevant as in most cases in modern PFD's the foam is encased in an outer fabric and so does not play a structural part for strength. It was agreed by VG8 that a buoyancy test is a better indication of compliance criteria as this is the primary function of inherently buoyant foam. The following compliance criteria should be used when testing in accordance with ISO 12402-7:2007+A1:2011, clause 4.7.2.7: Sample Requirements: 3 samples of foam (as per Table 12 of ISO 12402-7:2007+A1:2011) 					no longer relevant as in most ngth. It was agreed by VG8 that a it foam.
Dimensions: 200 x 200 (min thickness of 20mm) Exposure 70h in Diesel fuel according to EN 590 (current valid version)					
Requirements The maximum loss of buoyand The dimensions of the foam si % and there shall be no softer	nall be recorded before ar	nd after the expos	sure. The	e maximum loss of volume	in any sample shall not exceed 5 ens.
Sent for information to: (3):	members of the VG	other(s) VG	⊠ H	C (2)	SC (4)



CNB/P/ 08.023 Revision 02 Language: E

Number of pages: 1	Date: 05.02.2013		Approval by :	Aı	oproved on :
Origin: VG8			☑ Vertical Group☑ Horizontal Commit☑ Standing Committee	ttee .0.1/	03/2013 07/2015 11/2015
Question related to: Directive	89/686/EEC	EN/prEN: EN 13	3138-1,-2,-3:2008		Other:
		Clause: 5.1			
Key words:					
Colour requirements					
Question:					
colours. Transparent or dull c	use 5.1 under general requireme olour materials are not acceptabl ur devices in green with white ar	e. It is recommend	ded that the colour rang		
What would be acceptable as	'high definition colours'?				
Solution:					
angle when in use. Wholly tra	ufactured in bright colours that ar nsparent or materials in any shad ements apply only to the neck sha	de of undecorated	blue in the visible area		
Sent for information to: \square (3)		er(s) VG 🛛 🖂 H	IC (2)	⊠ SC (4)	other (5)
,			• •		



CNB/P/08.026 Revision 02 Language: E

Number of pages: 1	Date: 11.12.2013		Approval by :	Approved on :
Origin : VG 8			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.31/01/2014 .01/07/2015 .03/11/2015
Question related to: Directive 89/	/686/EEC	EN: ISO 12	2402-9:2006+A1:2011	Other:
		Clause: 5.	5.10.2.1	
Key words:				
Inflation tests				
Question:				
There is no test method included	l in 5.5.10.2.1 for the inflation tests.	What is the	correct method to perform the	ese tests?
Recommendation.				
The following method should be a) Two PFDs shall first be are then inflated. One °C and the other shall b) The two PFDs shall the PFDs are then inflated (+30 ± 2) °C and the o	used: e conditioned by exposing them for shall be activated using the automa be activated using the manual inflatien be conditioned by exposing them. One shall be activated using the ather shall be activated using the manual inflation of the shall be activated using the manual inflation.	(5,0 ± 0,1) tic inflation sion system. In for (5,0 ± automatic inflation	h at a temperature of (-5 ± 1) system by placing it in sea w 0,1) h at a temperature of (+1) dation system by placing it in a system.	ater at a temperature of (-1 +2) 30 ± 1) °C. The two inflatable sea water at a temperature of
Sent for information to: \square m (3):	nembers of the VG	/G ⊠ H	IC (2)	SC (4)



CNB/P/08.027
Revision 02
Language: E

Number of pages: 1	Date: 11.12.2013		Approval by :	Approved on :
Origin : VG 8			Vertical Crown	24/04/2044
			☑ Vertical Group☑ Horizontal Committee	.31/01/2014 .01/07/2015
				03/11/2015
Question related to: Directive 89/	/686/EEC	EN: ISO 1	5027-1:2012	Other:
		01	40.0	
		Clause: 4.	12.2	
Key words:				
Resistance to illumination				
Ougation				
Question:	7 thans is no tost to prove page/fail o	ritorio follow	ing the illumination test. How	should this be assessed?
III (He 2012 Version of 150 1502)	there is no test to prove pass/fail co	nteria ioliow	ing the illumination test. How	should this be assessed?
Decommendation				
Recommendation.				
The seam strength test in 4.12.3	should be carried out after the illum	ination test	to validate pass/fail criteria.	
least 300 N per 25 mm. Followin EN ISO 13934-2, using specimen	n the 2002 version of the standard. ing exposure to rot or illumination, ns of at least 60 mm width and with and fastening devices (including	the tensile at least 100	strength shall be measured ι mm of material on each side	ising the grab method given in
Sent for information to:	nembers of the VG	/G ⊠ H	C (2) X TC (3) X S	SC (4)
(3):	_ (/		(5):	., — (,



CNB/P/08.028
Revision 03
Language: E

Number of pages: 1	Date: 13 th November 2014		Approval by :	Approved on :
Origin : VG 8			∨ertical Group	March 2015
			☒ Horizontal Committee☒ Standing Committee	01/07/2015 03/11/2015
Question related to: Directive 89/	686/EEC	EN: ISO 1	5027-1:2012	Other:
		Clause: 4	.12.2	l
Key words:				
Thermal testing				
Question:				
For dual approval of immersion s standards?	uits in accordance with ISO 15027 a	and SOLAS	can one set of thermal testir	g be read across for both
Recommendation.				
	carried out in accordance with SOLA nethod used (i.e. temperature and e			
SOLAS approval (unless the test	carried out in accordance with ISO 1 method used for ISO 15027-3:2012 test method used is not the same t	2 (i.e. tempe	rature and exposure time) is	identical to that in the SOLAS
Sent for information to:	embers of the VG	/G 🛭 H	IC (2)	SC (4)



CNB/P/08.032
Revision 01
Language: F

Number of pages: 1	Date: 13th February 2015		Approval by :		Approved on :
Origin : VG 8			∨ Vertical Group	ı	March 2015
			 ✓ Vertical Group ✓ Horizontal Commit ✓ Standing Committe 	ttee .	01/07/2015 03/11/2015
Question related to: Directive 89/6	686/EEC	EN ISO 12	402-2:2006+A1:2010	Othe	r:
		EN ISO 12	402-3:2006+A1:2010		
		Clause: 5.	6.3.1		
Key words:					
Face plane angle and Torso angle	3				
Question:					
	2-2:2006+A1:2010 for lifejackets le ind face plane angle relate to each he standards?				
Recommendation.					
12402-2:2006 and EN ISO 12402- No individual subject's torso angle	1 set the requirements for the aver-3:2006. The requirements for each shall be less than 20° behind vertically shall be less than 30° above	h individual t tical.			rements of EN ISO
Sent for information to:	embers of the VG	/G ⊠ H	C (2)	SC (4)	other (5)

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 9

"Protective Clothing for Motorcycle Riders and Sports Impact Protectors" of the European Coordination of Notified Bodies in the field of PPE

Number of RfU	Version	Reference	Keywords	Approved by Vertical Group 9	Approved by Horizontal Committee	Approved by PPE Expert Group
09.001	02	EN 1621-1:1997 clause 6.3	Impact protectors in motorcyclists' protective garments	05/11/1997		15/12/2005
09.002	02	EN 1621-1:1997 clause 4.1	Impact protectors for motorcyclists	05/11/1997		15/12/2005
09.003	02	EN 1621-1:1997 clause 6.3	Impact protectors for motorcyclists	14/12/2000		15/12/2005
09.010	01	EN 13594:2002	Motorcycle gloves	17/04/2007	04/12/2014	19/09/2015
09.015	01	EN 14021:2003	Motorcyclists stone shields	10/10/2013	04/12/2014	19/09/2015
09.016	01	EN 13595- 1:2002	Motorcyclists clothing – Zippers / ventilation areas	10/10/2013	04/12/2014	19/09/2015
09.018	01	EN 1621- 1:2012, EN 1621-2:2014	Wet impact test after hydrolytic	10/10/2013	04/12/2014	19/09/2015
09.019	01	EN 16027:2011	Protective goal keepers gloves, impact strength	10/10/2013	04/12/2014	19/09/2015

Note: Recommendation for Use sheets which deal with withdrawn and / or superseded standards and which no longer apply to new certifications are published as reference for previous files.

Status: November 2015

1



CNB/P/09.001 Revision 02 Language: E

***	RECOMMEND		
Number of pages: 1	Date : 21/04/2006	Approval by :	Approved on :
Origin : Vertical Group 9 ' Sports Impact Protectors'	Protective Clothing for Motorcycle Riders	is and	nmittee
Question related to:		EN/prEN: 1621-1:1997	Other:
Annex:	Article:	Clause: 6.3	
Key words: Impact protectors in moto	rcyclists' protective garments		
Question: When protectors are fixed	I in the garment, can they be tested toge	ther with the garment layers?	
**	refers to the complete assembly of the ga		
Sent for information to:	members of the VG other(s):) VG	SC (4) other (5)



CNB/P/09.002				
Revision 02				
Language: E				

* * *	RECOMMENDA			
Number of pages: 1	Date : 21/04/2006	Approval by :	Approved on :	
Origin : Vertical Group 9 ' Sports Impact Protectors'	Protective Clothing for Motorcycle Riders a	Vertical Group ☐ Horizontal Committee ☐ Standing Committee	05.11.1997 15.12.2005	
Question related to:		EN/prEN: 1621-1:1997	Other:	
Annex:	Article:	Clause: 4.1	I	
Key words: impact protectors for motor	orcyclists	11		
Question:				
The impact test area is ecapplicable also near to the	qual the template size area (see clause 4.1 e edges ?). Is the minimum requirement of impact a	ittenuation (<u><</u> 35 kN)	
Solution: Yes. Therefore the protector shall provide sufficient protection also near all edges and not only in the core area of the template shape.				
Sent for information to:	members of the VG other(s) \((3):	/G	SC (4)	



CNB/P/09.003			
Revision 02			
Language: E			

* * *	RECOMMENDATION FOR USE		
Number of pages: 1	Date: 21/04/2006	Approval by :	Approved on :
Origin : Vertical Group 9 'F Sports Impact Protectors'	Protective Clothing for Motorcycle Riders a	Nd Vertical Group Horizontal Committee Standing Committee	14.12.2000 15.12.2005
Question related to:		EN/prEN: 1621-1:1997	Other:
Annex:	Article:	Clause: 6.3	
Key words: impact protectors for moto	rcyclists		
Question: Can protectors be approve	ed if, for ergonomic reasons, they have gap	os within the template area ?	
Solution: Yes, provided these gaps	will be virtually closed when positioned acc	cording to the manufacturer's instructions	
Sent for information to:	members of the VG other(s) V (3):	/G	SC (4)



CNB/P/09.010 Revision 01 Language: E

	RECOMMENDATION FOR USE			
Number of pages: 1	Date: 2007/08/18		Approval by :	Approved on :
Origin : SATRA			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2007/04/17 2014/12/04 2015/09/19
Question related to: Seam S	Strength	EN/prEN:	13594: 2002	Other:
Annex:	Article:	Clause:		1
Key words:				
Motorcycle Gloves				
Question:				
	is of two separate layers such as a textile uld the seam burst strength be measure 600 kPa?			
Solution:				
If the outer leather and lining	g are only connected at the cuff and finge	er tips, the g	love must be treated as sepa	rate layers.
	seams between pieces of material forr seam and test them together you are test seam.			
Sent to: Members of the	e VG	☐ TC ((3) SC (4) other	er (5)
(5)				



CNB/P/09.015 Revision 01 Language: E

* * *	RECOMMENDA			
Number of pages: 1	Date: (issue date) 2011	Approval by :	Approved on :	
Origin: NB 0299		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2013/10/10 2014/12/04 2015/09/19	
Question related to: Impa	ct Testing	EN/prEN: EN 14021: 2003	Other:	
Annex:	Article:	Clause: 1 and 4.7 Impact Performance	*	
Key words: EN 14021: 200	03 Motorcyclists Stone Shields			
Question: 1) Stone shields fo on and marked v	r persons with a breast / chest girth less th with EN 14021?	an 75 mm are excluded from the standar	d. Can they be certified based	
	asured peak force shall be below 27kN at demanding a sufficient degree of limited p		10mm higher than the anvil. Is	
Solution:				
Solution: 1) Not at present. Certify to the PPE directive. 2) No. Nearly every material will pass this test. Perhaps a change in the final drafting stage lead to wrong performance values or test conditions (e.g. guard ring higher than anvil?). Also no maximum peak force is required. Require for safety reasons at least 20 kN and a maximum peak force of 25 kN.				
Sent to: Members of	the VG	☐ TC (3) ☐ SC (4) ☐ oth	er (5)	
(5)				



CNB/P/09.016 Revision 01 Language: E

***	RECOMMENDA [*]		
Number of pages: 1	Date: (issue date) 2011	Approval by :	Approved on :
Origin: NB 0075 (CTC)		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2013/10/10 2014/12/04 2015/09/19
Question related to: Desi	gn	EN/prEN: EN 13595-1: 2002	Other:
Annex:	Article:	Clause: 1 and 4.7 Impact Performance	
Key words: EN 13595-1: 2	2002 Motorcyclists Clothing – Zippers / Ver	ntilation Areas	
These zippers can be on a Ventilation zippers could be	esent us some garments with ventilated are zone 2 or 3 regarding to the EN 13595-1: 2 be open during riding items? Can we perform a test on the close	2002 annex C	or ventilation)
	requirements on closed zipper: abrasion, or led in user information to ensure that zippe		
Sent to: members of	the VG	☐ TC (3) ☐ SC (4) ☐ oth	er (5)
(5)			



CNB/P/09.018 Revision 01 Language: E

* U * ***	RECOMMENDAT		
Number of pages: 1	Date: (issue date) 2013 – 11 - 01	Approval by :	Approved on :
Origin : CEN/TC 162/W	G 9 Meeting 04/06/2013	✓ Vertical Group✓ Horizontal Committe✓ Standing Committe	
Question related to: Wet I	mpact Test After Hydrolytic Ageing	EN/prEN: EN 1621-1 & EN 1621-2	Other:
Annex:	Article:	Clause: EN 1621-1 clause 6.3.4.3 &	k EN 1621-2 clause 5.1.6.2
Key words: EN 1621-1: 20		er hydrolytic	
Question:			
How should the sample be	e stored in the sealed bag according to 162	1-1 clause 6.3.4.3 and 1621-2 claus	e 5.1.6.2?
Solution:			
	red to allow water to drop out within the se	aled bag.	
Sent to: members of (5)	the VG	☐ TC (3) ☐ SC (4) ☐	other (5)



CNB/P/09.019 Revision 01 Language: E

RECOMME	RECOMMENDATION FOR USE					
Number of pages: 1 Date: (issue date) 2013 – 11	- 01	Approval by :	Approved on :			
Origin : SATRA (UK)		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	2013/10/10 2014/12/04 2015/09/19			
Question related to: Impact Testing	EN/prEN:	EN 16027: 2011	Other:			
Annex: Article:	Clause: 5	6 Impact Strength				
Key words: EN 16027: 2011 Protective Goal Keepers Gloves, Ir	mpact Strength					
Question: The standard EN 16027: 2011 details the test apparatus require clause 5.6.2.	ed for Impact Stre	ength testing in 5.6.1 and the	procedure for this test in			
Although clause 5.6.2 details the impact energy that should be nor the procedure (clause 5.6.2), specify the weight of the carried			list of apparatus (clause 5.6.1)			
Is it possible to use any weight carriage to carry out this test, proobtain the impact energy specified in the standard?	oviding that the c	orrect drop height has been o	alculated prior to testing to			
Solution:						
No. A heavy mass falling a short distance may not produce the same effect as a small mass falling from a greater height. A carriage weight of 2.5 kg should be used.						
Sent to: ☐ members of the VG ☐ other(s) VG ☐ HG	C (2) TC	(3) SC (4) oth	er (5)			
(5)						

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 10 "Foot and Leg Protection" of the European Coordination of Notified Bodies in the field of PPE

Number of RfU	Version	Reference	Keywords	Approved by Vertical Group 9	Approved by Horizontal Committee	Approved by PPE Expert Group
10.083	03	EN ISO 20345:2011, EN ISO 20346:2014, EN ISO 20347:2012	Marking of the standard EN ISO 20345:2011	24/05/2013	15/05/2015	03/11/2015
10.088	03	EN ISO 20345:2011, EN ISO 20346:2014, EN ISO 20347:2012	Water Penetration and water absorption - Non-functional and decorative stitching and perforations	24/05/2013	15/05/2015	03/11/2015
10.144	03	EN ISO 20345:2011, EN ISO 17249:2013	Several standards	01/07/2014	15/05/2015	03/11/2015
10.164	03	EN ISO 20345:2011, EN ISO 20346:2014, EN ISO 20347:2012	Synthetic upper materials on classification I footwear	24/05/2012	15/05/2015	03/11/2015
10.169	02	EN 13634:2010	Design	24/05/2012	15/05/2015	03/11/2015
10.170	02	EN 13287:2012	Curved outsoles	24/05/2012	15/05/2015	03/11/2015
10.171	02	EN ISO 20347:2012	Test duration	24/05/2012	15/05/2015	03/11/2015
10.172	02	EN ISO 20344:2011	Coverage area	24/05/2012	15/05/2015	03/11/2015
10.173	02		Innocuousness / Azo dyes	24/05/2012	15/05/2015	03/11/2015
10.174	02	EN ISO 20345:2011	Dimensions of areas of corrosion	24/05/2012	15/05/2015	03/11/2015
10.175	02	EN ISO 20349:2010	EN ISO 20349:2010	24/05/2012	15/05/2015	03/11/2015
10.176	02	EN ISO 20344:2011	Cotton gauze	24/05/2012	15/05/2015	03/11/2015
10.177	02	EN ISO 20344:2011	Insock, water detection	24/05/2012	15/05/2015	03/11/2015
10.178	03	EN ISO 20349:2010	EN ISO 20349, 5.3 and Annex A Test with molten metal for foundry footwear	24/05/2013	15/05/2015	03/11/2015
10.179	03	EN ISO 20345:2011	Quarter lining; seat region; heel grip	01/07/2014	15/05/2015	03/11/2015
10.180	02	EN ISO 20347:2012	Vamp lining mandatory	24/05/2013	15/05/2015	03/11/2015
10.181	02	EN ISO 13287:2012	Slip resistance	24/05/2013	15/05/2015	03/11/2015
10.182	02		Footwear slip resistance	24/05/2013	15/05/2015	03/11/2015
10.183	02		Overshoe, slip resistance	24/05/2013	15/05/2015	03/11/2015
10.184	02	EN ISO 20345:2011 cl. 6.2.7, EN 13634:2010	Ankle protection, how many areas per shoe	24/05/2013	15/05/2015	03/11/2015
10.185	02	EN ISO 20349:2010	EN ISO 20349:2010, Foundry footwear 5.1 and Table 3	24/05/2013	15/05/2015	03/11/2015
10.186	02	EN ISO 20349:2010	Collar, upper in EN ISO 20349:2010	24/05/2013	15/05/2015	03/11/2015

Status: November 2015

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 10 "Foot and Leg Protection" of the European Coordination of Notified Bodies in the field of PPE

Number of RfU	Version	Reference	Keywords	Approved by Vertical Group 9	Approved by Horizontal Committee	Approved by PPE Expert Group
10.187	02		Orthopedics	24/05/2013	15/05/2015	03/11/2015
10.189	02	EN ISO 20345:2011, EN ISO 20347:2012	Quarter lining	01/07/2014	15/05/2015	03/11/2015
10.190	02	EN ISO 20344:2011	Outsole cracking	01/07/2014	15/05/2015	03/11/2015
10.191	02	EN 15090:2012, EN ISO 20345:2011, EN ISO 20349:2010, EN ISO 17249:2013	Incorrect references	01/07/2014	15/05/2015	03/11/2015
10.192	02	EN ISO 20345:2011	Water vapour permeability and coefficient on clog	01/07/2014	15/05/2015	03/11/2015
10.193	02	EN ISO 13287:2012	Slip resistance	05/02/2015	15/05/2015	03/11/2015

Note: Recommendation for Use sheets which deal with withdrawn and / or superseded standards and which no longer apply to new certifications are published as reference for previous files.

Status: November 2015

2



CNB/P/10.083 Revision 03 Language:E

Number of pages: 1	Date: 24/05/2013			Appro	val by :		Approved on :	
Origin: GERMANY				☑ Vertical Group☑ Horizontal Committe☑ Standing Committee			24/05/2013 15/05/2015 03/11/2015	
Question related to: Direct	ctive 89/686	S/EEC	EN/prE	N: 2034	5 20346 2034	7	Other:	
Annex:	Article :		Clause	:				
Key words: marking of the	standard EN	NISO 20345:201	1					
Question:								
Which possibilities are allow is written: ISO 20345: 2011		safety shoes in	accordan	ce to EN	N ISO 20345: 2	2011? In	the standard there	
There are - theoretically - 7 BS 20345:2011 ISO 20345:2011 BS EN ISO 20345:2011		for marking (exa EN 20345:2011 BS EN 20345:2		BS	S ISO 20345:2 EN ISO 20345:	-		
Are there regulations w	hich ones are	e allowed and w	hich ones	not?				
Recommended solution :								
Reference to BS 20345, EN relation with footwear.	N 20345, BS	EN 20345 mark	ings are fo	orbidder	n. These stand	lards ma	y exist but have no	
ISO 20345:2011, this mark level of the standard.	king can be i	used inside or o	outside Eu	urope, t	his marking st	resses	on the international	
VG10 advises EN ISO 203	345:2011, BS	EN ISO 20345:	2011 etc	with a	preference fo	r the firs	st one.	
Sent for information to:		members of th	e VG 🛭		ther(s) VG SC (4)		HC (2) other (5)	



CNB/P/10.088 Revision 03 Language: E

Number of pages: 1 Date: : 24th May 2013		Approval by :			Approved on :		
Origin: CTC				☑ Vertical Group ☑ Horizontal Committee ☑ Standing Committee			24/05/2013 15/05/2015 03/11/2015
Question related to : 20346:2014, EN ISO 20		5:2011, EN ISO	EN ISO 20346:20		5:2011, EN I EN I	SO Ot	her:
Article :	Clause :6.3.	2	Clause :				
Key words: Water Pen	etration and wa	ater absorption - N	lon-function	onal and	d decorative s	titching	and perforations
Question:							
Do the descript	ors "non-functio	onal and decorativ	e" relate t	o perfor	rations as wel	l as stito	hing?
	as below the li	ne defined in table					ot being used" only decorative features
Recommended solution	:						
for the designe they are protect composed of at The complex up 2. Yes, decorative	r. Therefore it it it ted with imperron outer and inner oper shall fulfil at features include	e stitching "are for is proposed to ac meable material cer material (excluded all the upper required all the above the stitch above the	cept for S or a member ding lining rements in order of they are	2 non-fi orane. Ir). n EN IS not pro	unctional and in this case, th O 20345: 201 otected by an	decorative upper	rive stitching if
Sent for information to	o: ☑	members of th	e VG □	l of	her(s) VG	Ø	HC (2)
Sent for information to). <u>⊾</u> ☑	TC (3)	evg L		6C (4)		other (5)



CNB/P/10.144

Revision 03 Language: E

RECOMMENDATION FOR USE				
Number of pages: 1	Date: 1st July 20	14	Approval by :	Approved on :
Origin : TÜV			✓ Vertical Group ✓ Horizontal Committee ✓ Standing Committee	01/07/2014 15/05/2015 03/11/2015
Question related to: Markir	ng	EN ISO 20345: 2011 & EN	N ISO 17249: 2013	Other:
Annex:	Article:	Clause:		"
Key words: several standar	ds			
			:N ISO 20345: 2011 and El	
		ultilled? Or should be me n and performance level?	ntioned the chain saw cut p	protection only as an
Solution:				
can (if desired) be marke	d on the product. How		a way that is not confusing	umber of all these standard g for the user and in the
particular code. For insta	nce it is not possible to Hence, would need to	mark "EN ISO 17249: 20 mark "EN ISO 17249: 20	of the standard that include 013 S3" as EN ISO 17249: 13 + level and EN ISO 203	2013 does not include
	mance classes or code	es of protection are also to	laining that pictograms car be included then the stand	be used without reference dard must be completely
Sent to: Members of the	ne VG	G HC (2) TC	(3) SC (4)	er (5)
(5)				



CNB/P/10.164 Revision 03 Language: E

RECOMMENDA						
Number of pages: 1 Date: 26th September 2011		Approval by :	Approved on :			
Origin: CTC		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	24/05/2012 15/05/2015 03/11/2015			
Question related to:		EN ISO 20345:2011, EN ISO 4, EN ISO 20347: 2012	Other:			
Annex: Article:	Clause:		JL			
Key words: Synthetic upper materials on classification I footwear						
Question:						
Class I footwear models with synthetic material on upper which are widespread. This kind of material is usually used for small surfaces						
TOTAL STATE OF THE						
Regarding to the EN ISO 20345: 2011 standard (§5.4) these components coefficient and permeability is not conform because of the components		e tested as upper component	is but the water vapour			
Is it possible to certify these models to EN ISO : 2011 classification	11?					
Solution:						
Certification in class I is possible provided that the overlay componerequirements):	ents (that do	not meet the water vapour coe	efficient and permeability			
1. For Design A - Account for no more than 40% of the who	le area of the	upper (excluding the collar) -	see # below			
2. For Designs B, C or D - Account for no more than 10% of	f the whole ar	ea of the upper (excluding the	toe cap, counter and collar)			
3. Always cover an upper material that is fully compliant with	h EN ISO 203	45/6/7				
(Point 3 does not apply to materials covering the toe cap and the $\bar{\mbox{co}}$	ounter)					
# For information, note that that in general for design A footwear the toe ca	ap and counter	areas typically account for aroun	nd 30% of the total upper area			
Sent to: ☐ members of the VG ☐ other(s) VG ☐ HC (2	2) TC (3) 🛭 SC (4) 🔲 othe	er (5)			
(5)						



CNB/R/10.169 Revision 02 Language: E

* U * ***	RECO						
Number of pages: 1	Date: 24th May 2012		Approval by :	Approved on :			
Origin: CTC			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	24/05/2012 15/05/2015 03/11/2015			
Question related to: Moto	orcycle boots	EN 13634:	2010	Other:			
Annex:	Article:	Clause:		II			
Key words: Design							
Question:							
Below you will see a mod	lel with a fastening system by vel	lcro on the external sid	e of the footwear.				
During an accident, the fastening system can be pulled out and maybe the footwear will leave the foot. Is this fastening construction							
acceptable?		•		ŭ			
	be acceptable the opening of fas						
Sent to: members of (5)	f the VG 🔲 other(s) VG [⊠ HC (2) □ TC ((3) SC (4)	er (5)			



CNB/R/10.170 Revision 02 Language: E

RECOMMENDATION FOR USE

Number of pages: 2	Date: 24th May 2012		Approval by :	Approved on :
Origin : TUV			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	24/05/2012 15/05/2015 03/11/2015
Question related to: Slip resistar	nce	EN/prEN:	EN 13287:2012	Other:
Annex:	Article:	Clause:		

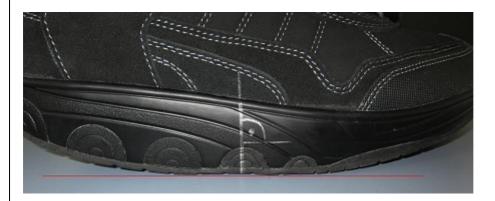
Key words: Curved outsoles

Question:

How best to carry out slip resistance testing of samples with curved outsoles?

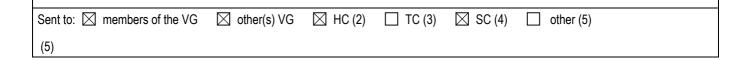
Solution

One possible solution (which is dependent on design of the machine) is to adjust the 7 °angle on the testing device for the heel mode based on this central vertex without using the wedge – see photographs below











CNB/R/10.171 Revision 02 Language: E

	RECOMMI					
Number of pages: 1	Date: 24th May 2012		Approval by :	Approved on :		
Origin: TUV / PFI / INESCOP			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	24/05/2012 15/05/2015 03/11/2015		
Question related to: Water res	istance test duration	EN/prEN:	EN ISO 20347: 2012	Other:		
Annex:	Article:	Clause: 6	.2.5	l		
Key words: Test duration						
Question: It says in clause 6.2.5 of EN ISO 20347: 2012 that the requirement for Water resistance according to EN ISO 20344, 5.15.2 is 3 cm² after 15 minutes. But this is different to that stated in EN ISO 20344: 2011 and EN ISO 20345: 2011 as follows: EN ISO 20344: 2011 Clause 5.15.2.4.8 states 80 minutes EN ISO 20345: 2011 Clause 6.2.5 states 80 minutes EN ISO 20347: 2012 Clause 6.2.5 states 15 minutes With regard toEN ISO 20347: 2012 Clause 6.2.5 what is the recommended way to proceed for notified bodies against this background? Solution: Notified bodies should take the 80 minutes, as it says in EN ISO 20345: 2011.						
Sent to: members of the \((5) \)	/G □ other(s) VG ⊠ H	HC (2)	(3) ⊠ SC (4) □ oth	er (5)		



CNB/R/10.172 Revision 02

	11 E-Bilective 03/00	Language: E	
* * *	RECOMMEND		
Number of pages: 1	Date: 24th May 2012	Approval by :	Approved on :
Origin : CIOP-PIB	,	✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	24/05/2012 15/05/2015 03/11/2015
Question related to: Pend	etration resistant inserts dimensions	EN/prEN: EN ISO 20344: 2011	Other:
Annex:	Article:	Clause: 5.8.1	!!
Key words: Coverage are			
between the edge of the i The questions are:	lause. 5.8.1 of EN ISO 20344:2011 "Sec nsert and the line left by the feather edge es shall the footwear be cut? uts shall be made? easurements of distance X and Y shall b		ces X and Y being the distances
	0,15 L	0.25 L 4	
Solution:			
It should be noted that the by cutting into the sample		eter of the insert but at least the following	four points should be checked
,	nall be cut at - The heel; The forepart; Th	e waist and The toe cap area	
2. Four – please s	ee answer 1 above		
3. Three of X and	one of Y		
Sent to: members of (5)	the VG	2) TC (3) SC (4) C	ther (5)



CNB/R/10.173 Revision 02 Language: E

* * *	RECOMMEN			
Number of pages: 1	Date: 24th May 2012		Approval by :	Approved on :
Origin : CIOP-PIB			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	24/05/2012 15/05/2015 03/11/2015
Question related to: Inno	cuousness AZO Dyes	EN/prEN:		Other:
Annex:	Article:	Clause:		
Key words: Innocuousnes	ss / Azo dyes			
Question:				
	otwear should the Notified Body require nce with the requirements?	e the test reports	proving that the content of az	to dyes listed in the directive
likely. However, as a mini	e PPE Directive 89/686 does not differe imum, all materials present on the inne us substances listed in Annex 17 of Rf	er surface of the		
Sent to: members of (5)	the VG	C (2) TC	(3) SC (4)	er (5)



CNB/R/10.174 Revision 02 Language: E

* " *	RECOMMENDATION FOR USE				
Number of pages: 1	Date: 24th May 2012		Approval by :	Approved on :	
Origin: INESCOP			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	24/05/2012 15/05/2015 03/11/2015	
Question related to: Corrosion re	esistance	EN/prEN:	EN ISO 20345	Other:	
Annex:	Article:	Clause: 6	.2.1.5.1	•	
Key words: Dimensions of areas	of corrosion				
Question:					
corrosion areas are desc 20345:2011, 6.2.1.5.1 ar	in Class I, EN ISO 20344: cribed by its longest dimen nd EN ISO 20347:2012, 6. ethod. Which requirement	sion. Hov 2.1.5.1 is	vever the requirement a maximum area of 2	in EN ISO	
Solution:					
mm, which is the require for toe caps	nt for corrosion resistance ment in EN 12568:2010, 6				
Sent to: members of the VG	other(s) VG 🔀 HC (2)	☐ TC	(3) SC (4)	er (5)	
(5)					



CNB/R/10.175 Revision 02 Language: E

* * *	RECOMMENDATION FOR USE			
Number of pages: 1	Date: 24th May 2012	Approval by :	Approved on :	
Origin : INESCOP		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	24/05/2012 15/05/2015 03/11/2015	
Question related to: Rem	oval time	EN/prEN: EN ISO 20349:2010	Other:	
Annex:	Article:	Clause: Annex B.2.4	II	
Key words:				
Question:				
In EN ISO 20349: 2010 Clause 5.2 it states that the removal time shall be <5 s, whilst in B.2.4 it says 5 s. This means that a result of exactly 5 seconds would pass one clause but fail the other.				
Also it is not clear in the	e standard that this time should apply to	a single boot rather than a pair.		
What is the recommended way to proceed for notified bodies against this background?				
Solution: Accept 5 seconds for one boot (ie not a pair) as a pass result.				
Sent to: Members of	the VG	☐ TC (3) ☐ SC (4) ☐ oth	er (5)	
(5)				



CNB/R/10.176 Revision 02 Language: E

* * *	RECOMMENDATION FOR USE				
Number of pages: 1	Date: 24th May 2012		Approval by :	Approved on :	
Origin: INESCOP			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	24/05/2012 15/05/2015 03/11/2015	
Question related to: Water	er absorption / desorption	EN/prEN:	EN ISO 20344: 2011	Other:	
Annex:	Article: Clause: 7.		2.2.2		
Key words: Cotton gauze					
Question:					
Notified bodies are experiencing some difficulties in finding a cotton/polyamide (50/50) gauze conforming with the standard. Three standards that use this method (IUP-11 (heavy leather), EN 12746: 2000 (insoles/insocks) and EN ISO 5404: 2011(heavy leather)) just mention "cotton gauze". However, EN ISO 20344 states that a cotton gauze shall be used, but it then specifies that a cotton gauze consisting of cotton and polyamide is required. What is the recommended way to proceed for notified bodies against this background?					
Solution: The gauze is used to distribute water evenly and its composition is not critical. This is why no standard defines the gauze in a very precise way.					
Hence use a cotton gauze that is only made of cotton. This should have a mass/ unit area of 60.5 g/m^2 (as stated in the standard but with the tolerance increased to \pm 10 g/m ²) – this is readily available.					
Sent to: members of (5)	the VG	HC (2) TC ((3) SC (4)	er (5)	



CNB/R/10.177 Revision 02 Language: E

***	RECOMMENDATION FOR USE			
Number of pages: 1	Date: 24th May 2012	Approval by :	Approved on :	
Origin : INESCOP		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	24/05/2012 15/05/2015 03/11/2015	
Question related to: Water	er resistance	EN/prEN: EN ISO 20344: 2011	Other:	
Annex:	Article:	Clause: 5.15	-W	
Key words: Insock, water	detection			
Question:				
is removed. Water mak penetration from being	when the footwear incorporates a memes the insole wet, but it does not pener detected. What should be done?			
Solution: On finishing the test, the insock shall be removed to visually inspect the area for dampness and determine if the footwear complies with the requirement.				
Sent to: members of (5)	the VG	☐ TC (3) ☐ SC (4) ☐ of	her (5)	



CNB/R/10.178 Revision 03 Language: E

*	**	RECOMMENDATION FOR USE			
Number	of pages: 1	Date: 24th May 2013		Approval by :	Approved on :
Origin : F	PFI			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	24/05/2013 15/05/2015 03/11/2015
Question	related to: Molte	n Metal testing	EN/prEN:	EN ISO 20349: 2010	Other:
Annex:		Article: Clause:		l	
Key word	Key words: : EN ISO 20349 , 5.3 and Annex A Test with molten metal for foundry footwear				
Question: The performance of the test as described in Annex A of EN ISO 20349 is not workable as follows:					
1)	1) Due to cutting of the shoe A.4 the stability of the test sample is destroyed and the test is difficult because the shrinkage of the leather can lead to contact of the molten metal with inner parts without penetration				
2)	2) Picture A1 with the dimensions is not clear. If you position the shoe at 40 mm distance from the end of the chute especially with molten iron the contact is far away from the marking A.5 in reality the place of the contact is hidden by the trousers.				
3)	3) The procedure in A.6 especially after end of pouring is not possible it is not possible to check the penetration within 10 s after the end of pouring				
What should be done?					
Solution:					
1)	 Test must to be carried out on completed footwear (more reality) for more stability. Also permit thin slivers of aluminium to lodge on the footwear during the test provided that they easily fall off after the test (ie they are not stuck to the boot) 				
2)	Define an area where the molten metal should contact the footwear (This should be 30 mm above the marked point as defined by clause A.5 of EN ISO 20349: 2010) the distance of the sample footwear to the chute should be position in that manner				
3)	3) The sample should be quenched (interrupting of burning contact with molten metal) at 10 s after pouring, and the inspection of the inner part should be done after cooling				
Sent to:	members of t	the VG	☑ HC (2) ☐ TC (3) SC (4) other	er (5)
(5)					

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CO-ORDINATION OF NOTIFIED BODIES

CNB/P/10.179 Revision 03

	PPE-Directive 89/686/EEC + amendments RECOMMENDATION FOR USE			Language: E		
* * *						
Number of pages: 1	Date: 1st July 2014		Approval by :	Approved on :		
Origin : CTC France & IFA G	ermany		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	01/07/2014 15/05/2015 03/11/2015		
Question related to: Abrasio	n resistance of quarter lining	EN/prEN:	EN ISO 20345	Other:		
Annex:	Article:	Clause:				
Key words:						
Quarter lining; seat region;	heel grip					
Question:						
	13 of EN ISO 20345 : 2011 the ootwear (upper and sole)	definition o	of "seat region counter	area" is : rear 10 % of		
According to 5.5.2 of EN when dry and 25 600 cy	N ISO 20345 : 2011 the abrasic	on resistanc	e of seat region lining m	ust be 51 200 cycles		
•	nufactured with a quarter lining	(1) and a h	eel grip (2)			
What material(s) should	be tested with 51 200 and 25	600 cycles	?			
		•				
	2					
1 -			-			
Solution:						
The counter (heel) area is defined by the rear 10% of the total length of the footwear (upper and sole). For the						
purpose of this solution	the height of seat region shall	be in accord	dance with the values given	ven in EN ISO 20345		
	nn as measured from the lowes					
area must fulfil 52.600 dry cycles and 25.600 wet cycles of abrasion. For materials outside this defined area 25.600 dry cycles and 12.800 wet cycles of abrasion are applicable						
height of seat region						
Indigite of sour regions						
helet teachte						
Cont to: Manual members of the		o)	(2) 🖂 СС (4) 🖂 -11-	or (5)		
Sent to: Members of the	e VG 🔲 other(s) VG 🔀 HC (2	2)	(3) 🛛 SC (4) 🔲 oth	er (5)		



CNB/P/10.180 Revision 02 Language: E

***	RECOMMENDA					
Number of pages: 1	Date: 24th May 2013	Approval by :	Approved on :			
Origin : Inescop		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	24/05/2013 15/05/2015 03/11/2015			
Question related to: Certi	fication	EN/prEN: 20347: 2012	Other:			
Annex:	Article:	Clause:				
Key words: Vamp lining m	nandatory					
Question:						
was no toecap. For However when revi now it is not possib What is the recomn	When revising EN 347 it was decided that the vamp lining did not need to be mandatory, since there was no toecap. For that reason in EN ISO 20347:2004 there was an "O" in Table 2. However when revising the 2004 version there was an "X" for vamp lining in the 2012 version. As it is now it is not possible to mark 20347 not fulfilling the requirements for vamp lining. What is the recommended way to proceed for notified bodies against this background?					
Solution:						
Notified bodies sho	uld consider the "X" to be an "O	".				
Sent to: members of (5)	the VG	☐ TC (3) ☐ SC (4) ☐ c	ther (5)			



CNB/P/10.181 Revision 02 Language: E

* *	RECOMMENDATION FOR USE			
Number of pages: 1	Date: 24th May 2013	1	Approval by :	Approved on :
Origin: TC161/WG3			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	24/05/2013 15/05/2015 03/11/2015
Question related to: EN	ISO 13287: 2012	EN/prEN:		Other:
Annex:	Article:	Clause: 5	& 6 and Figure E.1	·
Key words: Slip resistance	e			
to testing (5.2) deemed unnec	ed that EN13287 now indicate and secondly after preparation essary and excessive if altern	n but before testing (7.1.7 ate appropriate considera	re. footwear and 7.2.5 re. floation is taken.	oring), however, this is
2. Figure E.1 does	s not align precisely with the to	ext in E.4.3; the text in E.4	1.3 is correct and the figure sh	nould be amended.
What is the recommende	d way to proceed for notified b	odies against this backgr	round?	
recommended Condition the footwear/floots (e.g. description of the second of the seco	<u>oor</u> will not need to be ifferent test modes or d <u>The footwear/floor h</u>	ses should be interpreted <u>oor</u> in accordance versions in accordance versions follows: re-conditioned follows: ifferent surfaces) pro-	as reading: with 5.2 prior to the owing the initial condit oviding it is not remove	first test. The <u>item of</u> ioning (5.2) or between d from the standard test 15 minutes to recover
Sent to: ⊠ members of (5)	f the VG □ other(s) VG	2-3min 7/7/7/1/2	2. 3. SC (4) cth	er (5)



CNB/P/10.182 Revision 02 Language: E

* * *	RECOMMENDA			
Number of pages: 1	Date: 24th May 2013	Date: 24th May 2013		Approved on :
Origin : CIOP-PIB				24/05/2013 15/05/2015 03/11/2015
Question related to:		EN/prEN:	,	Other:
Annex:	Article:	Clause:		
Key words: Footwear slip	resistance			
Question:				
Should footwear meet the	requirement concerning slip resistance?			
Solution:				
	ch footwear declares its slip resistance as Fing ergonomics and innocuousness.	PPE has to	be tested and then certified a	ccording to the Directive using
If the manufacturer declar to this standard.	res meeting the requirements of EN ISO 20	347: 2012,	the footwear has to be tested	and certified according
Sent to: Members of (5)	the VG	☐ TC	(3) SC (4) oth	er (5)



CNB/P/10.183 Revision 02 Language: E

*	RECOMMENDATION FOR USE			
Number of pages: 1	Date: 24th May 2013		Approval by :	Approved on :
Origin: CIOP-PIB			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	24/05/2013 15/05/2015 03/11/2015
Question related to: Overshoo	es	EN/prEN:		Other:
Annex:	Article:	Clause:		
Key words: Overshoe, slip resistance				
•	isulating overshoes (worn over classic overboot be certified to and marked v	•	•	
Solution:				
be given to the inter	twear shall be tested for slip resistanc action between the overshoe and the conomics etc) should be addressed.			
overshoe or overboo	standard does not include this type of ot and the footwear being worn inside. ed by EN ISO 20345/6/7.			
Sent to: members of the	VG)	(3) SC (4) O	ther (5)
(5)				



CNB/P/10.184 Revision 02 Language: E

* * *	RECOMMENDATION		
Number of pages: 1	Date: 24th May 2013	Approval by :	Approved on :
Origin : PFI		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	24/05/2013 15/05/2015 03/11/2015
Question related to: EN IS	SO 20345:2011 cl. 6.2.7 EN13634:2010	EN/prEN:	Other:
Annex:	Article:	Clause:	'
Key words: Ankle Protection	on , how many areas per shoe		
Question:			
2. In EN ISO 13634	5: 2011 no requirements for the protective area 4: 2010 the picture seems that the area X is only a way to proceed for notified bodies against this	y at the outer side of the footwear.	
	a may to proceed for meaning source against the		
Solution:			
It is defined in E protected and te	N ISO 20344: 2011 Clause 5.17 that both sides ested.	of the ankle (ie inner & outer) of ea	ch left & right foot shall be
If ankle protection pieces of footwe	on is claimed, protection must be provided (and ear.	tested) on both the outer and inner s	ide of both left and right
Sent to: members of	the VG other(s) VG HC (2)	☐ TC (3) ☐ SC (4) ☐ oth	er (5)
(5)			



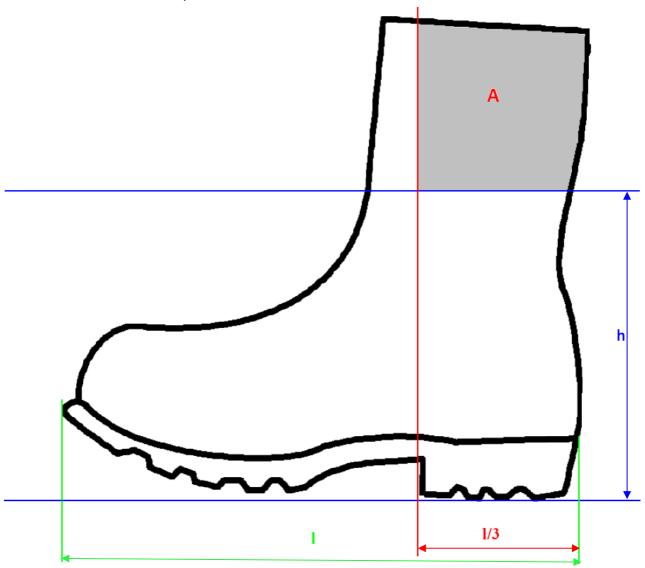
CNB/P/10.185 Revision 02 Language: E

* * *	RECOMMENDA			
Number of pages: 2	Date: 24th May 2013		Approval by :	Approved on :
Origin : PFI			☑ Vertical Group☑ Horizontal Committee☑ Standing Committee	24/05/2013 15/05/2015 03/11/2015
Question related to: Direct	ive 89/686	EN/prEN:	-	Other:
Annex:	Article:	Clause:		1
Key words: EN ISO 20349	2: 2010 , Foundry footwear 5.1 and Table 3			
Question:				
c) if they are valid all over results in the rows 6 of tab	(metal parts) anticipate good solutions fo the shoe upper. Good solutions for a good le 3 but in reality this parts are covered du	I fitting and f Iring use by	ast removability in the highes the foundry trousers.	
What is the recommended	I way to proceed for notified bodies agains	t this backgr	ound?	
Solution:				
Allow the failing of row 6 o	f table 4 if the parts are in a part of the sho	na whara na	great danger of metal occurs	
A good solution can be in		DE WHEIE HO	great danger of metal occurs	•
· ·				
Sent to: members of	the VG	☐ TC ((3) SC (4)	er (5)
(5)				

Recommended solution:

Allow the failing of row 6 of table 4 if the metal parts are in area A of the shoe

Area A for allowance of metal parts



Height h for different sizes:

Size French Stich	Size UK	h (mm)
Up to 36	Up to 3 ½	113
37 and 38	4 to 5	115
39 and 40	5 ½ to 6 ½	119
41 and 42	7 to 8	123
43 and 44	8 ½ to 10	127
45 and larger	10 ½ and larger	131

I = length of shoe



CNB/P/10.186 Revision 02 Language: E

* " *	RECOMMENDA			
Number of pages: 1	Date: 24th May 2013	Approval b	y: Approved on :	
Origin : Inescop			I Group 24/05/2013 htal Committee 15/05/2015 hg Committee 03/11/2015	
Question related to: Colla	ır	EN/prEN:	Other:	
Annex:	Article:	Clause:		
Key words: Collar, upper i	n EN ISO 20349: 2010			
requirements requirements, meaning that	in the upper. This wo whilst in the first	uld allow a c column it say per shall fu	reference to 5.4.1 for collar with lower ys "Upper (all parts)" lfil the requirements.	′,
Solution:				
Do not consid	er the reference to 5	.4.1.		
Sent to: Members of	the VG	☐ TC (3) 🖂 S	C (4)	
(5)				



CO-ORDINATION OF NOTIFIED BODIES

PPE-Directive 89/686/EEC + amendments

CNB/P/10.187

Revision 02 Language: E

RECOMMENDATION FOR USE

Number of pages: 2	Date: 24 th May 2013	Appı	oval by :	Approved on:
Origin: TUV		⊠H	ertical Group orizontal Comn anding Commit	
Question related to: orthoped occupational footwear	lic changes on safety and	EN/prE	N:	Other:
	icle:	Clause:		
Key words: orthopedics				
Question:				
With reference to EN ISO 20345: 20	11 and EN ISO 20347: 2012, whic	h tests are necess	sary for the assessme	nt of orthopedic change?
Solution:				
see annex				
Sent to: members of the other (5)	e VG other(s) VG	HC (2	2) TC (3))

General

An industrially manufactured shoe (already certified according to the PPE Directive) shall be customized. This will be done usually by an orthopedic shoemaker according to an assembly instruction. This instruction is part of the technical file for EEC Type Examination. The instruction includes the work flow, materials, all information regarding processing temperature, time and other details. If necessary (for better understanding) pictures or drawings should be added. In addition to the standard the manufacturer must also explain all orthopedic changes of the footwear in the user manual

Required tests (worst case testing)

Safety Footwear according to EN ISO 20345:2011 or EN ISO 20347:2012

parameter	outsole heightening	enlargement of the toe cap	with orthopedic insock	remarks
Basic requirement	nts	•	•	
5.3. Whole Footw				
5.3.2 toe protection	X	X	X	only for safety shoes; without any changes in cleat design; only installation of a material
5.7 Insole/ Insoc	k	•	•	
5.7.1 thickness	-	-	Х	only if non-removable or insock/insole together
5.7.2 pH value	-	-	X	only for leather
5.7.3 water absorption/ desorption	-	-	x	only if water does not penetrate within 60 s
5.7.4.2 abrasion resistance	-	-	X	
5.7.5 chromium VI	-	-	Х	only for leather
5.8 Outsole				
5.8.1.1 thickness of outsoles	×	-	-	
5.8.4 flexing resistance	х	-	-	heightening may affect rigidity;
5.8.6 interlayer bond strength	х	-	-	between outsole and installed material
Additional requir	ements		l .	
6.2 whole footwe				
6.2.2 electrical properties	Х	-	X	
6.2.3 resistance to inimical environments (CI, HI)	х	-	x	worst case measurement (thinnest material structure)
6.2.4 energy absorption	X	-	x	worst case measurement (thinnest material structure)

For handmade orthopaedic footwear all materials, components and constructional assemblies must fulfil the requirements of the harmonised standards. The orthopaedic shoemaker can combine the tested materials, components and constructional assemblies according to the condition of the patient.

If necessary, the test should be carried out analogous for all PPE Footwear testing (e.g. EN 15090: 2012,

EN ISO 17249: 2013, EN ISO 20349: 2010)

⁽¹⁾ Essential safety requirement



CNB/P/10.189 Revision 02 Language: E

RECOMMENDATION FOR USE						
Number of pages: 1	Date: 1st July 2014		Approval by :	Approved on :		
Origin : IFA-Germany and PZ Haan BG BAU-Germany		✓ Vertical Group 10✓ Horizontal Committee✓ Standing Committee	01/07/2014 15/05/2015 03/11/2015			
Question related to: Water	r vapour permeability (WVP)	EN/prEN:	EN ISO 20345: 2011 and EN	ISO 20347: 2012 Other:		
Annex:	Article:	Clause:		J'		
Key words:Quarter lining						
	t of more than one material; e.g. quarter linuses 5.5.1 up to 5.5.5 are required. Is the			0345: 2011 and EN ISO		
Solution: The test is considered to have no value (hence unnecessary). No test of WVP is required for materials used in the defined counter area:						
	egion to be as given in in the "Design A" co		ole 10 in EN ISO 20345: 2011			
height of seat region total length						
If there is no stiffener or the stiffener is perforated, the material shall comply also WVP.						
Sent to: members of t	he VG	☐ TC ((3) SC (4) other	er (5)		



CNB/P/10.190 Revision 02 Language: F

			Languago. L		
RECOMMENDATI	RECOMMENDATION FOR USE				
Number of pages: 1 Date: 1st July 2014		Approval by :	Approved on :		
Origin : IFA Germany		✓ Vertical Group 10✓ Horizontal Committee✓ Standing Committee	01/07/2014 15/05/2015 03/11/2015		
Question related to: EN ISO 20344 : 2011	EN/prEN:		Other:		
Annex: B Article:	Clause:	u			
Key words: Outsole cracking					
Question:					
The figure B.1 in annex B does not correspond to the title: outsole cracks corresponding to cleat height What is the recommended way to proceed for notified bodies against this background?					
Follow figure corresponding to outsole cracks. Sent to: members of the VG other(s) VG HC (2) (5)		3) × SC (4)	er (5)		



CNB/P/10.191 Revision 02 Language: E

* * *	RECOMMENDATION FOR U		
Number of pages: 1 Date:	1st July 2014	Approval by :	Approved on :
Origin: IFA Germany		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	01/07/2014 15/05/2015 03/11/2015
Question related to:	EN:15090: 2012 /EN ISO 20345: 2011	I/ EN ISO 20349: 2010/ EN IS	O 17249: 2013 Other:
Annex: Article:	Clause:		,
Key words: Incorrect references			
Question:			
Following references to EN ISO 20345 a	re not correct:		
	o EN ISO 20345:2011/6.3.1 o EN ISO 20345:2011/6.3.1		
	o EN ISO 20345:2011/6.3.1 o EN ISO 20345:2011/6.3.3		
What is the recommended way to proceed	ed for notified bodies against this backgr	round?	
Solution:			
Take into account the following reference			
	o EN ISO 20345:2011/6.3.1	correct /6.3 (WRU)	
EN ISO 20349:2010 Table 2 reference 1	o EN ISO 20345:2011/6.3.1	correct /6.3 (WRU	
EN ISO 17249:2013 Table 1 reference 1	o EN ISO 20345:2011/6.3.1	correct /6.3 (WRU)	
reference f	o EN ISO 20345:2011/6.3.3	correct/ 6.2.8 (CR)	
Sent to: Members of the VG	other(s) VG 🔀 HC (2) 🔲 TC ((3) SC (4)	er (5)
(5)			



CNB/P/10.192 Revision 02

	11 L-Directive 03/000/LEO : differiuments			Language: E		
* * *	RECOMMENDA					
Number of pages: 1	Date: 1st July 2014		Approval by :	Approved on :		
Origin : CTC			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	01/07/2014 15/05/2015 03/11/2015		
Question related to:		EN/prEN:	ISO 20345: 2011	Other:		
Annex:	Article:	Clause:				
Key words:		-				
Water vapour permeability and co	pefficient on clog					
Question: The product is a clog without toecap. The manufacturer wants to perform tests according to EN ISO 20347: 2012 and claim the category OB (because the seat area is not closed). The upper material is a leather but with a specific coating and doesn't fullfill the water vapour permeability and coefficient. This product cannot be considered as a class II because it's not an item of rubber/elastomeric footwear. So is it possible to certify this product according EN ISO 20347 without WVP/WVC requirement because of his design?						
Solution: No Need to certify to the PPE Directive using a technical specification because one of compulsory requirement of EN ISO 20347 is not fulfilled.						
Sent to: Members of the VG	other(s) VG 🔀 HC (2)	☐ TC	(3) SC (4) other	er (5)		
(5)			• •			



CNB/P/10.193 Revision 02 Language: E

* *					
Number of pages: 1	Date: 5 th February 2015		Approval by :	Approved on :	
Origin: TC161/WG3			✓ Vertical Group 10✓ Horizontal Committee✓ Standing Committee	05/02/2015 15/05/2015 03/11/2015	
Question related to: Pene	etration resistance	EN ISO 13	3287: 2012	Other:	
Annex:	Article:	Clause:			
Key words: Slip resistance	Э				
Question:					
the density, hardness valuable when analys define the test specin	ear, slip resistance is dependent on and colour of the wearing surface of sing any future differences in slip res men to enable any trends or changes	compound sistance d	l. It is considered that thi ata in which case what is	s information may be	
Solution:					
For information purposes only, EN 13287 slip resistance test reports should include a colour photograph of the outsole submitted for test which clearly shows the tread design and also colour plus test data for the hardness of the material of the wearing face in contact with the ground. Note. Hardness is not a precise measurement when testing footwear solings. If the laboratory adopts a standard procedure then good quality control data should be established. The aim is to assess if there is a difference between two materials, not to set hardness requirements.					
(Note agreed solution does r	not list a requirement to include the density of the	ne outsole as	it is a destructive test and for otl	ner reasons of practicality)	
Sent to: Members of	the VG	☐ TC	(3) SC (4)	er (5)	
(5)					

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 11 "Protection against Falls from a Height" of the European Coordination of Notified Bodies in the field of PPE

No.	Version	Reference	Key words	Approved by Vertical Group 11	Approved by Horizontal Committee	Approved by PPE Expert Group
11-001	1	89/686/EEC Article 10	Number of test objects for EC- Testing	26/04/1996	08/10/2012	12/03/2013
11-003	2	EN 364:1992, clause 5.6.2	Guided type fall arrester; performance test; distance of the test mass	12/10/2006	08/10/2012	12/03/2013
11-004	3	EN 364:1992, clause 5.1.2.1	Length of the test lanyard	17/10/2012	17/06/2013	19/09/2015
11-006	2	89/686/EEC, Article 10	EC type examined equipment; minor variations, additional testing/ verification	12/10/2006	08/10/2012	12/03/2013
11-007	2	89/686/EEC, Article 10	EC type examined equipment; medium variations; verification; re-examination	12/10/2006	08/10/2012	12/03/2013
11-008	2	89/686/EEC, Article 10	EC type examined equipment; essential variations; specific or partial tests	12/10/2006	08/10/2012	12/03/2013
11-009	2	89/686/EEC, Article 10	EC type examined equipment; essential variations; EC type examination	12/10/2006	08/10/2012	12/03/2013
11-015	3	89/686/EEC	Guided type fall arrester according to EN 353-1:1992; sand mass; peak force	12/10/2006	08/10/2012	12/03/2013
11-019	3	EN 364:1992	Energy absorber; chain test lanyard	12/10/2006	08/10/2012	12/03/2013
11-023	4	EN/prEN all	Static testing; stressing rate	23/10/2008	08/10/2012	12/03/2013
11-024	4	EN 364:1992	Dynamic force measurement; filter characteristic	12/10/2006	08/10/2012	12/03/2013
11-031	1		Canyoning; caving	12/10/2006	08/10/2012	12/03/2013
11-034	2	EN 353-2:2002	Fall protection system; special use	23/10/2008	08/10/2012	12/03/2013
11-037	1	EN 1891:1998, EN 364:1992, clause 5.9.2	Low stretch kernmantel rope – drop machine	19/10/2001	08/10/2012	12/03/2013
11-040	1	89/686/EEC, Article 10, EN 12277:1998, EN 566:1997EN 565:1997 etc.	Date of manufacture; marking; mountaineering equipment subject to ageing	29/10/2002	08/10/2012	12/03/2013
11-041	2	EN 795:2012 - type B	Vacuum anchor point	17/10/2012	17/06/2013	19/09/2015
11-042	2	89/686/EEC, Article 10, EN 353- 1 & 2:2002	Guided Type Fall Arrester – Incorrect attachment and use	24/11/2005	08/10/2012	12/03/2013
11-043	2	EN 361:2002, EN 358:1999	Back support; full body harness; waist belt; work positioning elements	24/11/2005	08/10/2012	12/03/2013
11-049	1	EN 1891:1998	Low stretch kernmantel ropes; diameter	19/10/2001	08/10/2012	12/03/2013
11-050	3	EN 353-2:2002, clause: 4.4.2	Guided type fall arrester including a flexible anchor line; static strength	11/11/2009	08/10/2012	12/03/2013
11-051	2	89/686/EEC, Article 10, EN 361:2002 and others	Textile materials for PPE against fall from height	13/10/2011	08/10/2012	12/03/2013

Status: November 2015

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 11 "Protection against Falls from a Height" of the European Coordination of Notified Bodies in the field of PPE

No.	Version	Reference	Key words	Approved by Vertical Group 11	Approved by Horizontal Committee	Approved by PPE Expert Group
11-053	1	89/686/EEC, Article 10, EN 361:2002	Full body harness: front loops	26/11/2004	08/10/2012	12/03/2013
11-054	7	EN 360:2002	Horizontal use; retractable type fall arrester; sharp edge (type B) test	17/10/2012	17/06/2013	19/09/2015
11-057	1	89/686/EEC, Article 10, EN 361:2002	Marking of fall arrest attachment points on EN 361:2002 harnesses	26/11/2004	08/10/2012	12/03/2013
11-060	7	EN 360:2002	Horizontal use; retractable type fall arrester, edge (type A) test	17/10/2012	17/06/2013	19/09/2015
11-061	3	EN 795:1996 / A1:2000	Test methodology used for EN 795 class B – temporary lifeline	11/11/2009	08/10/2012	12/03/2013
11-062	2	89/686/EEC, Article 10, EN 355, EN 360, EN 353-1 & 2	Testing with higher loads	23/10/2008	08/10/2012	12/03/2013
11-063	2	EN 355:2002	Energy absorber - static test	17/10/2012	17/06/2013	19/09/2015
11-064	1	EN 353:2002	Different fall arrestors for fall arrest systems	25/10/2007	08/10/2012	12/03/2013
11-067	1	EN 568, Clause 4.2.4.3	Ice anchors, resistance to fracture	23/10/2008	08/10/2012	12/03/2013
11-068	1	EN 12278:2007, Clause: 4.2	Pulley, sheaves, static strength test	11/11/2009	08/10/2012	12/03/2013
11-069	2	EN 361:2002, Clause 4.2	Synthetic fibre, breaking tenacity	11/11/2009	08/10/2012	12/03/2013
11-070	1	EN 15567-1:2007	Rope, zip wire, tyrolean activity	12/11/2009	08/10/2012	12/03/2013
11-071	2	89/686/EEC, Article 10, EN 358	Restrain lanyard, belt, category	13/10/2010	08/10/2012	12/03/2013
11-072	1	89/686/EEC, Article 10, EN 813	Work positioning, dynamic test, torso dummy	12/10/2011	08/10/2012	12/03/2013
11-073	2	89/686/EEC, Article 10, EN 353- 1	Withdrawal of harmonized list, back fall test, sideway fall	13/10/2010	08/10/2012	12/03/2013
11-077	1	89/686/EEC, Article 10, EN 795+A1	Anchor device, class B, car	12/10/2011	08/10/2012	12/03/2013
11-079	1	89/686/EEC, Article 10, 11A, EN 360, EN 364	Dynamic performance	12/10/2011	08/10/2012	12/03/2013
11-080	1	89/686/EEC, Article 10, EN 353- 2	Work positioning	12/10/2011	08/10/2012	12/03/2013
11-081	1	89/686/EEC, Article 10, EN 353- 2, EN 364	Guided type fall arrester, dynamic performance, non integral absorber	12/10/2011	08/10/2012	12/03/2013
11-082	1	89/686/EEC, Article 10, EN 353- 2, EN 364	Guided type fall arrester, dynamic performance, eyebolt	12/10/2011	08/10/2012	12/03/2013
11-083	2	EN 355:2002	Samples, test order	17/10/2012	17/06/2013	19/09/2015
11-084	1	89/686/EEC, Art. 10, EN 360, clause 5.1.2.3, EN 364, clause 5.11.6.2	Retractable type fall arrester, locking test	12/10/2011	08/10/2012	12/03/2013

Status: November 2015

Vertical Recommendation for Use sheets (RfUs) of Vertical Group 11 "Protection against Falls from a Height" of the European Coordination of Notified Bodies in the field of PPE

No.	Version	Reference	Key words	Approved by Vertical Group 11	Approved by Horizontal Committee	Approved by PPE Expert Group
11-085	2	EN 360:2002	Retractable fall arrester, fall factor, locking feature	17/10/2012	17/06/2013	19/09/2015
11-086	1	89/686/EEC, Article 10, EN 360, Art. 4.2 – para. 3	Termination, connector	12/10/2011	08/10/2012	12/03/2013
11-088	1	89/686/EEC, Article 10, EN 795 + A1	Rope / Knots tied by end user	12/10/2011	08/10/2012	12/03/2013
11-089	1	89/686/EEC, Article 10, 11A, EN 361, clause 4.3, EN 364, clause 5.1.4	Harness, static strength	12/10/2011	08/10/2012	12/03/2013
11-090	1	89/686/EEC, Article 10, EN 362	Latch distance from connector body	12/10/2011	08/10/2012	12/03/2013
11-092	1	89/686/EEC, Article 10, 11 A, EN 361, EN 12277	Harness, sizes, torso dummy	12/10/2011	08/10/2012	12/03/2013
11-094	2	EN 358:1999, EN 354:2010	Pole choker, work positioning lanyard	27/02/2013	17/06/2013	19/09/2015

Note: Recommendation for Use sheets which deal with withdrawn and / or superseded standards and which no longer apply to new certifications are published as reference for previous files.

Status: November 2015

3



CNB/P/11.001 Revision 01 Language: E

Number of pages: 1	Date: 15.05.1995		Approval by :	Approved on :
	'Protection against Falls from a Hei	iaht'	, , , , , , , , , , , , , , , , , , ,	Approvod on .
Oligin . Vertical Gloup 11	r Totection against Lans Iron a rie	igrit		26.04.1996
			Horizontal Committee Standing Committee	08.10.2012
		П	Standing Committee	12.03.2013
Question related to: Direct		EN/prEN:		Other:
Annex:	Article: 10	Clause:		
Key words:				
Number of test objects fo	r EC-Testing			
Question:				
How many test objects ar	e required for EC-testing in the case	e, that there is no sp	pecial requirement in the star	idard?
Solution:				
	ered to be sufficient, unless otherwis	se indicated in the s	standard	
,	,			
Sent for information to:	members of the VG ot	her(s) VG 🔀 F	HC (2)	SC (4)
	(3):		(5):	
			. ,	



CNB/P/11.003 Revision 02 Language: E

Number of pages: 1	Date: 21.06.1999		Approval by :	Approved on :	
	ical Group 11 'Protection against Falls from a Height'		·	Applotod on .	
ongin : Vortical Group 11 1	rotootion against rails from a rioignt		Vertical Group	.12.10.2006	
			☒ Horizontal Committee☒ Standing Committee	08.10.2012 12.03.2013	
Overtion related to		ENI/orENI 2	_	II	
Question related to:		EN/prEN: 3		Other:	
Annex:	Article:	Clause: 5.6	5.2		
Key words:					
Guided type fall arrester; per	rformance test; distance of the test mass	3			
Overtion					
Question:	orrect, if a sand bag is used in the metho	nd B of the no	orformance test?		
is the distance of 500 min co	orrect, if a saile day is used in the metho	ou b or the pe	enormance test?		
Solution:					
	hat the distance of 300 mm should be me	easured to th	ne attachment noint on the si	de of the sand had. Figure 8	
	mended accordingly. The Notified Bodies			de of the sand bag. I iguie o	
Sent for information to:	members of the VG other(s) V	/G 🛭 H	C (2)	SC (4)	
	, ,			,	
(3	3):		(5):		



CNB/P/11.004 Revision 03 Language: E

Number of pages: 1	Date: 17.10.2012		Approval by	:	Approv	red on :
Origin : Vertical Group 11	'Protection against Falls from a Heigi	ht'	✓ Vertical✓ Horizont✓ Standing	Group tal Committee g Committee	17.10.2 17.06.2 19.09.2	013
Question related to:		EN/prEN: 3	64:1992		Other:	
Annex:	Article:	Clause: 5.1	.2.1			
Key words: Length of the test lanyard						
Question: What is the definition of th	e length of a test lanyard?					
Solution: Define the length as per fi	gure 2 of EN 1497:2007.					
Sent for information to:	members of the VG other (3):	er(s) VG [SC (4)	other (5)



CNB/P/11.006 Revision 02 Language: E

Number of pages: 1	Date: 21.06.1999		Approval by :	Approved on :		
Origin : Vertical Group 11 'Protec	tion against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.12.10.2006 .08.10.2012 .12.03.2013		
Question related to: Directive 89/	686/EEC	EN/prEN:		Other:		
Annex:	Article: 10	Clause:				
Key words:		11				
EC type examined equipment; minor variations, additional testing / verification						
Question:						
What are minor variations within	EC type examined equipment which	h do not requ	re additional testing / verifica	ation?		
Solution:						
Solution: Examples of minor changes: Change in trade mark Change in reference Change in marking Documents to be supplied: Formal letter from the manufacturer describing the change (s) in the equipment and confirming that there is no further modification Manufacturers technical specification relative to the change Sample or specimen Conditions of validity: Delivery of an EC type examination extension The extension file is to be kept in the file of the original equipment						
Sent for information to:	embers of the VG	/G ⊠ HO	C (2) TC (3) S (5):	C (4)		



CNB/P/11.007 Revision 02 Language: E

Number of pages: 1	Date: 21.06.1999		Approval by :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.12.10.2006 .08.10.2012 .12.03.2013	
Question related to: Directive 89	9/686/EEC	EN/prEN:		Other:
Annex:	Article: 10	Clause:		
Key words:		·		
EC type examined equipment; r	nedium variations; verification; re-exa	amination		
Question: What are medium variations with examination (visual), review?	What are medium variations within EC type examined equipment which require verification by re-checking, visual inspection, re-			
Solution:				
Examples of changes to be verified by re-examination: - Change in the colour of a strap or a sewing thread - On a harness, an addition, a removal or a modification in an accessory-support device - An addition, a subtraction or modification in a size (harness size or lanyard length) - Change in length of a lanyard on a retractable type fall arrester Documents to be supplied by the manufacturer: Formal letter from the manufacturer describing the change (s) in the equipment and confirming that there is no further modification - Manufacturers technical specification relative to the change (drawings, parts list, letter of subcontractor,) - One specimen of the modified equipment for verification and storage - One specimen of the original equipment for comparison with the modified equipment Conditions of validity: Examination on the modified equipment				
	ne kept in the file of the original equip		C (2)	C (4)
(3):		ы Дп	(5):	○ (+) □ Otilei (5)



CNB/P/11.008 Revision 02 Language: E

Y				
Number of pages: 1	Date: 21.06.1999		Approval by :	Approved on :
Origin : Vertical Group 11	'Protection against Falls from a Heig	ıht'	✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.12.10.2006 .08.10.2012 .12.03.2013
Question related to: Direct	ive 89/686/EEC	EN/prEN:		Other:
Annex:	Article: 10	Clause:		ш
Key words:		ll		
EC type examined equipm	ent; essential variations; specific or	partial tests		
Question: What are essential variation	ons within EC type examined equipm	nent which require	specific or partial test?	
Solution:				
Examples of essential cha	nges requiring specific or partial test	<u>ts:</u>		
_	e in the type of carriage guard			
 On a harness, a cl 	nange in the metal buckle (material,	dimension, treatm	ent,)	
	nange in the dorsal plate			
	change in the anti-corrosion treatme			
 On a retractable ty 	pe fall arrester, a change in the term	nination		
Documents to be supplied	by the manufacturer :			
 Formal letter from 	the manufacturer describing the cha	ange (s) in the equ	ipment and confirming that th	ere is no further modification
 Manufacturers tec 	hnical specification relative to the ch	ange (drawings, p	arts list, letter of subcontractor	or,)
 One or several specific 	ecimens of the modified equipment,	or one or several	samples of the modified comp	conent for performing the tests
 One specimen of t 	he original equipment for compariso	n with the modifie	d equipment	
Conditions of validity:				
 Performance of sp 	ecific tests on the modified equipme	ent		
 Delivery of an EC 	type examination extension			
 The extension file 	is to be kept in the file of the original	l equipment		
N.B.: When an equipment	is modified several times, it is neces	ssary to query the	continuation of the original ce	ertificate.
Sent for information to:	members of the VG oth (3):	er(s) VG 🛛 🖂 F	IC (2) TC (3) S (5):	SC (4)



CNB/P/11.009 Revision 02 Language: E

*				
Number of pages: 1	Date: 21.06.1999		Approval by :	Approved on :
Origin: Vertical Group 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.12.10.2006 .08.10.2012 .12.03.2013	
Question related to: Directive 89	/686/EEC	EN/prEN:		Other:
Annex:	Article: 10	Clause:	U	
Key words:				
EC type examined equipment; ea	ssential variations; EC type examina	tion		
Question: What are essential variations in	EC type examined equipment which	require a ne	ew EC type examination?	
Solution:				
Examples of essential changes requiring an EC type examination: On all PPE types, simultaneous or successive changes in components requiring processing as in sheet no. 11.008 On a harness, a change in the arrangement of straps and/or seams On a harness, a fundamental change in strap (width, material,) On a harness, an addition, a removal or a shifting of an attachment point On a lanyard, a change in the termination (slice, ferrule,) On a retractable type fall arrester, a fundamental change in components On a guided type fall arrester on anchorage line, a change in the fall arrester (principle, configuration, material,) or in the anchorage line (diameter, material,) Documents to be supplied by the manufacturer: According to the EC type examination Conditions of validity: According to the EC type examination procedure The equipment is subjected of a specific storage and identification				
Sent for information to:	nembers of the VG	′G ⊠ H	C (2)	C (4)



CNB/P/11.015 Revision 03 Language: E

Number of pages: 1	Date: 21.06.1999		Approval by :	Approved on :
· -	'Protection against Falls from a Height'		-	
			Vertical Group	12.10.2006
			☐ Horizontal Committee☐ Standing Committee	.08.10.2012 12.03.2013
Question related to: Direc	tive 89/686/EEC	EN/prEN:	<u> </u>	Other:
Annex:	Article:	Clause:		W
Key words:				
•	according to EN 353-1:1992; sand mass;	peak force		
Question:				
	nce of the sand mass on the peak force b	e avoided?		
Solution:				
	d to prefer method B of EN 364:1992, cla	ause 5.6.2.2, fo	or testing guided type fall arre	esters on a rigid anchorage
	d to the sand mass so as not to increase	the height of	the fall.	
		J		
Sent for information to:) VG 🛛 H	IC (2) X TC (3) X	SC (4)
	(3):		(5):	
			. ,	



CNB/P/11.019 Revision 03 Language: E

·				
Number of pages: 1	Date: 21.06.1999		Approval by :	Approved on :
Origin : Vertical Group 11 '	Protection against Falls from a He	eight'	✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.08.10.2006 .08.10.2012 .12.03.2013
Question related to:		EN/prEN:	364:1992	Other:
Annex:	Article:	Clause:		
Key words: energy absorber; chain tes	t lanyard			
Question: How can the influence of th	e chain test lanyard on the peak	force in the dynamic	performance test of an ener	rgy absorber be avoided?
	est lanyard on the peak force in t the energy absorber and not to tl			ber can be avoided, if the load
		ther(s) VG 🛮 🖂 F	IC (2)	SC (4)



CNB/P/11.023 Revision 04 Language: E

× * ×	REGOMMENDA	RECOMMENDATION FOR COL		
Number of pages: 1	Date: 25.10.2007		Approval by :	Approved on :
Origin : Vertical Group 11	'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.23.10.2008 .08.10.2012 .12.03.2013
Question related to:		EN/prEN: a	all	Other:
Annex:	Article:	Clause:		U
Key words:				
static testing; stressing ra	te			
Question: How can the stressing rat	e during static testing be adjusted to avoid	d dynamic eff	ect and overshooting of for	ce control equipment?
	static testing shall not be constant or at a dynamic effects and overshooting of force			rce shall be reached within a
Sent for information to:	members of the VG other(s) (3):	VG 🛭 H	IC (2)	SC (4)



CNB/P/11.024 Revision 04 Language: E

Number of pages: 1	Date: 21.06.1999		Approval b	y:		Approved on :
			al Group ontal Comm ing Commit		12.10.2006 .08.10.2012 .12.03.2013	
Question related to:		EN/prEN: 3	364:1992		Ot	ner:
Annex:	Article:	Clause:				
Key words: dynamic force measurement; filter	er characteristic					
Question: How are the filter characteristics	used for dynamic force measureme	nts?				
Solution:						
	dynamic force measurements during	ig testing of	PPE agains	st falls from	a height a	re as follows:
 Type: Low-Pass Characteristic: Butterworth Cutoff-Frequency: 60 Hz Tolerance level at 0 Hz: +0,1/- Tolerance level at 60 Hz: (-3d Slope: 24 dB/Octave Tolerance level of the slope: +8. Attenuation band: -50 dB 	B) +0,1/-0,3 dB	/G ⊠ H	C (2)	TC (3)	SC (/	1)
Sent for information to: (3):	enners of the VG	/G ⊠ H	(5):	1 10 (3)	SC (4	4)



CNB/P/11.03
Revision 01
Language: E

•			T	
Number of pages: 1	Date: 20.10.1997		Approval by :	Approved on :
Origin : Vertical Group 11	Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.12.10.2006 .08.10.2012 .12.03.2013
Question related to:		EN/prEN:		Other:
Annex:	Article:	Clause:		u
Key words: Canyoning; caving				
Question: How to perform testing of I	narnesses used in "canyoning" and "caving	g" sport?		
Solution: Harnesses used in above	described sports have to be tested accord	ing to EN 12	2277:2007 "Mountaineering E	quipment - Harnesses"
		/G ⊠ H	IC (2) X TC (3) X 5 (5):	SC (4)



CNB/P/11.034 Revision 02 Language: E

Number of pages: 2	Date: 23.10.2008		Approval by :	Approved on :	
Origin: Vertical Group 11 'Protec	ction against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.23.10.2008 .08.10.2012 .12.03.2013	
Question related to: Directive 89	/686/EEC	EN/prEN:	EN 353-2 :2002	Other:	
Annex:	Article:	Clause:			
Key words:	Key words: Fall protection system; special use				
Question: How to test and certify fall protect	ction systems for use in corrosion pro	otective work	k on latticed tower masts		
Solution:					
See attached					
	nembers of the VG	/G ⊠ H	C (2)	SC (4)	
(3):			(5):		

Requirement:

see EN 353-2:2002

diverging from the standard in the following points:

- length of the lanyard > 1 m
- arrest distance H ≤ 5,75 m
- the "locking test after conditioning" can be omitted

Additional requirements:

- The fall arrester must be provided with a self-locking device that prevents the fall arrester from sliding down the anchor line.
- It must not be possible to release the locking device of the fall arrester when the user holds on to it in panic in case of a fall from a height.
- static strength test of the anchor line with the fall arrester attached (15 kN, to be maintained for 3 min.)
- The correct function of the fall arrest system has to be ensured even if the coating materials can soil the
 device.
- The position of the lower attachment on the anchor line must not change during the loading or load alleviation of the flexible anchor line.

Tests to be carried out:

- dynamic performance test with the shortest possible length of the rope, according to EN 364:1992, clause 5.5.2.
- for systems with two ropes, the load may be measured at either the fall arrester or at the lanyard
- dynamic performance in the lower part of the anchor line; with the system attached at the maximum permissible height (drop test with a 100 kg falling mass carried out at a height of approx. 8 m above ground level measure the arrest distance H after the test, no determination of the arrest force)
- dynamic performance test according to EN 364:1992, clause 5.5.4
- static strength of the flexible anchor line (for textile materials 22 kN, for metallic materials 15 kN, to be maintained for 3 min. in either case), attachment at the end terminations for ropes with permanently installed end terminations or via discs for ropes without permanently installed end terminations (knots)
- static strength test of the lanyard, according to EN 364:1992, clause 5.2.2 (for textile materials 22 kN, for metallic materials 15 kN).
- static strength test carried out on the anchor fine with the guided type fall arrester attached (15 kN, to be maintained for 3 min.), if necessary, the rope is knotted in order to block the fall arrester
- corrosion resistance according to EN 364:1992, clause 5.13
- if the flexible anchor line consists of two ropes, static strength test of the lower attachment (15 kN, to be maintained for 3 min.)

Tests to be carried out:

- dynamic performance test with the shortest possible length of the rope, according to EN 364:1992, clause 5.5.2.
- for systems with two ropes, the load may be measured at either the fall arrester or at the lanyard
- dynamic performance in the lower part of the anchor line; with the system attached at the maximum permissible height (drop test with a 100 kg falling mass carried out at a height of approx. 8 m above ground level measure the arrest distance H after the test, no determination of the arrest force)
- dynamic performance test according to EN 364:1992, clause 5.5.4
- static strength of the flexible anchor line (for textile materials 22 kN, for metallic materials 15 kN, to be
 maintained for 3 min. in either case), attachment at the end terminations for ropes with permanently installed
 and terminations or via discs for ropes without permanently installed end terminations (knots)
- static strength test of the lanyard, according to EN 364:1992, clause 5.2.2 (for textile materials 22 kN, for metallic materials 15 kN)
- static strength test carried out on the anchor line with the guided type fall arrester attached (15 kN, to be maintained for 3 min.), if necessary, the rope is knotted in order to block the fall arrester
- corrosion resistance according to EN 364:1992, clause 5.13
- if the flexible anchor line consists of two ropes, static strength test of the lower attachment (15 kN, to be maintained for 3 min.)

Additional information to be included in the instructions for use:

- information that the fall arrest system may only be used in corrosion protection work on latticed tower masts.
- warning: a collision with elements of the structure cannot be excluded



CNB/P/11.037 Revision 01 Language: E

Number of pages: 1	Date: 03.11.2000		Approval by :	Approved on :
Origin : Vertical Group 11 'Protec		_		
·			✓ Vertical Group✓ Horizontal Committee	.19.10.2001 .08.10.2012
			Standing Committee	12.03.2013
Question related to: Directive 89/	686/EEC	EN/prEN: 18	891:1998, 364:1992	Other:
Annex:	Article:	Clause: 5.9.	.2	
Key words:				
Low stretch kernmantel rope - dro	op machine			
Overskien				
Question: Dynamic performance and number	er of drops: Which drop machine ha	as to be used	(free fall or quided)?	
bynamic penomiance and numb	or or drops. Willon drop machine na	is to be used	(1100 Idii oi gulueu)!	
Solution:				
VG11 recommends to use the fre	ee fall machine.			
Cont for information to:	omboro of the VO	/C 17 110	2 (2)	C (4)
	embers of the VG	/G ⊠ HC		C (4)
(3):			(5):	



CNB/P/11.040 Revision 01 Language: E

Number of pages: 1	Date: 29.10.2002	Approval by :	Approved on :
	'Protection against Falls from a Height'	Tipproval by .	Apployed on .
Origin : Vertical Group 11	Frotection against Falls from a Height	✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	29.10.2002 .08.10.2012 .12.03.2013
Question related to: Direc	tive 89/686/EEC	EN/prEN: 12277:1998 EN 566:1997 EN 565:1997 etc.	Other:
Annex:	Article: 10	Clause:	I
Key words:			
date of manufacture; mark	king; mountaineering equipment subject to	ageing	
Question:			
Should mountaineering ed this?	quipment subject to ageing be marked with	the date of manufacture if the particular s	standard does not require
Solution:	and the state of t	(II D (-0.4)
YES - All PPE subject to a	ageing should be marked with the date of n	nanufacture. (EC directive 89/686 Annex	II Paragraph 2.4)
Sent for information to:	\square members of the VG \square other(s) \square (3):	/G ⊠ HC (2) ⊠ TC (3) ⊠ S (5):	SC (4)



CNB/P/11.041 Revision 02 Language: E

Number of pages: 1	Date: 17.10.2012	Date: 17.10.2012		Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.17.10.2012 .17.06.2013 .19.09.2015
Question related to: Directive 89/686/EEC		EN/prEN	EN/prEN: EN 795:2012 - type B Other:	
Annex:	Article: 10	Clause:		"
Key words: vacuum anchor point		ï		
Question: Is an anchor device attach	ned to a structure by vacuum	pressure considered as	s PPE.	
Solution: Yes - Anchor devices atta	ched to structure by vacuum	pressure should be tes	ted to EN 795:2012 as type B d	evice
Sent for information to:	members of the VG (3):	☐ other(s) VG 🛛	HC (2)	SC (4)



CNB/P/11.042 Revision 03 Language: E

Number of pages: 1 Date: 26.11.2004		Approval by :	Approved on :			
Origin : Vertical Group 11 'Protection against Falls from a Height'			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.24.11.2005 .08.10.2012 .12.03.2013		
Question	related to: Directive 89)/686/EEC	EN/prEN: I	EN 353 parts 1&2:2002	Other:	
Annex:		Article: 10	Clause:			
Key word	ds:		l			
guided T	ype Fall Arrester - Inco	rrect attachment and use				
Question	 :					
1)	(normally upwards). The	ers can be provided with a locking dence the release function/button of the fall with What kind of warning shall be inclu	arrester mus	st be operated by hand. This r	may prevent the fall arrest	
2)		erns associated with the use of guide uded within the manufacturer's user			ourposes – What kind of	
3)		erns associated with the use of incor ded type fall arresters – What kind o				
Solution:						
1)		e shall include a warning that the rel ney have a safe hand).	ease functio	n/button must only be operate	ed when the user is in no	
2)	The instructions for us	e shall confirm whether or not the sy	stem can be	e used for work positioning pur	rposes.	
3)	The instructions for use shall indicate the requirements for attachment to a full body harness (e.g. high or low relative to the sternum) and a warning that the intended connection between the user and safety line/rail should not be extended in length (e.g. with an additional connector or lanyard).					
Sent for i	information to: \square n (3):	nembers of the VG	′G ⊠ H	IC (2)	C (4)	



CNB/P/11.043 Revision 02 Language: E

Number of pages: 1	Date: 19.10.2001	Appr	roval by :	Approved on :			
Origin : Vertical Group 11 'Protection against Falls from a Height'			Vertical Group Horizontal Committee Standing Committee	.24.11.2005 08.10.2012 12.03.2013			
Question related to: Direct	ive 89/686/EEC	EN/prEN: EN 36	1:2002, EN 358:1999	Other:			
Annex:	Article:	Clause:		*			
Key words: back support; full body harness; waist belt; work positioning elements							
Question: Must a full body harness ir	ncluding work positioning elements have a	waist belt or back	support?				
Solution:							
	t belt or back support if the force is applied						
	members of the VG other(s) \ (3):	/G ⊠ HC (2) (5)	☐ TC (3) S	CC (4)			



CNB/P/11.049 Revision 01 Language: E

Number of pages: 1	Date: 19.10.2001	Approval by :	Approved on :
	n : Vertical Group 11 'Protection against Falls from a Height'		Approved on .
Ongin . Vertical Gloup 11 P	TOLEGUOTI AYAHTSI FAHS HUHI A FIEIGH	∀ Vertical Group	19.10.2001
		Horizontal Committee Standing Committee	.08.10.2012 .12.03.2013
Ougation related to Direction	00000001TTC		П
Question related to: Directiv		EN/prEN: 1891:1998	Other:
Annex:	Article:	Clause:	
Key words:	P		
low stretch kernmantel rope	s; diameter		
0			
Question: Shall the requirement of 8.5	mm for the diameter of low stretch kernr	nantel rones he strictly fulfilled?	
onan the requirement of 0,5	Thin for the diameter of low stretch kelling	name ropes be smolly lumiled?	
Solution:			
	shall be 8,5 mm or of a value giving the e	quivalent safety.	
Sent for information to:	members of the VG other(s) V	'G ⊠ HC (2) □ TC (3) ⊠	SC (4)
(3	3):	(5):	
`	•		



CNB/P/11.050 Revision 03 Language: E

Number of pages: 1	Date: 23.10.2008		Арр	roval by :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'		\boxtimes	Vertical Group Horizontal Committee Standing Committee	.11.11.2009 .08.10.2012 .12.03.2013	
Question related to: Directive	89/686/EEC	EN/prEN: 3	353-2	2:2002	Other:
Annex:	Article:	Clause: 4.4	1.2		·
Key words:					
guided type fall arrester include	ding a flexible anchor line; static strengt	h			
Question:					
How should the static test be	carried out under EN353-2?				
2/ Should the device be loade	de the whole system (e.g flexible ancho ed through the fall arrester attachment e a guided type fall arrester including a fle	ye/lanyard/c	conne	ector?	,
Solution:					
	arried out to provide a strength test of the ster slips on the flexible anchor line during 106				
2/ Yes – The device should be	e loaded through the attachment eye/la	nyard/conne	ector	as per normal use	
	er together with its connector shall withs 102, clause 5.2.2.2, but without a lanyar		gth c	of 15 kN. The testing sha	Il be carried out in
Sent for information to: (3)	_ (,	′G ⊠ H	C (2) (5)		CC (4)



CNB/P/11.051 Revision 02 Language: E

Number of pages: 1	Date: 13/10/2011		Approval by :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.13/10/2011 .08/10/2012 .12/03/2013	
Question related to: Directive 89/	686/EEC	EN/prEN:	EN 361:2002 and others	Other:
Annex:	Article: 10	Clause:		
Key words: textile materials for PPE against f	fall from height			
Question: Which kind of textile materials is a falls from a height and which is no	acceptable for use in the webbing o ot?	f a full body	harness or other personal pro	otective equipment against
Solution: 1. polyamide 100% - acceptable 2. polyester 100% - acceptable 3. mixture of polyamide and polyester fibres - acceptable 4. aramid 100% - not acceptable 5. polyethylene made of mono filament fibres of high tenacity - acceptable but the low melting point (140°C) shall be taken into account 7. polypropylene - acceptable (providing it has suitable UV resistance assessed in accordance with EN 1263:2002) 8. aramid coated with polyamide or polyester - acceptable if additional indications are included in the instructions for use (inspection, ageing, wear etc.) 9. polypropylene coated with polyamide or polyester - acceptable if additional indications are included in the instructions for use (inspection, ageing, wear etc.) 10. polyamide or polyester with elastic yarn - acceptable, but the test institute shall carefully examine its resistance in static and dynamic testing and carry out a suspension test				
Sent for information to:	embers of the VG	/G ⊠ H	IC (2)	C (4)



CNB/P/11.053 Revision 01 Language: E

Number of pages: 1	Date: 26.11.2004		Approval by :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.26.11.2004 .08.10.2012 .12.03.2013
Question related to: Directive 89	/686/EEC	EN/prEN: 3	61:2002	Other:
Annex:	Article: 10	Clause:		*
Key words:				
full body harness: front loops				
Question:				
Who is responsible for using the elements e. g. webbing loops or	right connector to form the front atta D rings?	achment poin	t of a full body harness whic	n comprises two attachment
Solution:				
	to specify exactly the type of connection	ector e. g. typ	e / model which should be de	etailed within the PPE user
If the manufacturer supplies a coaxis, while attached to the harne	onnector with the harness, the conne	ector will be to	ested statically to EN 361:20	02 in the most unfavourable
Sent for information to:	nembers of the VG	VG ⊠ H	C (2) X TC (3) X S	GC (4)
Sent for information to: \boxtimes m (3):	iembers of the VG	/G ⊠ H	(2) 🗵 IC (3) 🗵 S (5):	o∪ (4)
(0).			(~).	



CNB/P/11.054 Revision 07 Language: E

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Number of pages: 4	Date: 17.10.2012	Approval by :	Approved on :
Origin : VG 11 – Protectio	n against fall from a height	✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.17.10.2012 .17.06.2013 .19.09.2015
Question related to: Direct	tive 89/686/EEC	EN/prEN: 360	Other:
Annex:	Article:	Clause:	Ш
Key words:			
horizontal use; retractable	e type fall arrester; sharp edge (type B) te	st	
Question:			
What tests are necessary	for retractable type fall arresters intended	for horizontal use over a sharp edge?	
Solution:			
1. Preliminary note:	relate to the entional test of retroctable type	ofall arrestors. It is presumed that the an	ahar naint of the retreatable
	relate to the optional test of retractable type uated lower than the standing user Testing		
steel bar without radii.	,	g	
2. General requirements	:		
	rrester shall comply with the requirements	in accordance with EN 360:2002.	
3. Additional requiremen	nts:		
2.4 Laskins in a basisan	tal amananan		
3.1 Locking in a horizon3.2 Locking in a horizon	ital arrangement tal arrangement following optional condition	ning	
3.3 Dynamic performane	ce in a horizontal arrangement when loade	d over the edge	
	a horizontal arrangement when loaded ov norizontal arrangement when loaded over t		
gg			
Sent for information to:	members of the VG other(s) V	/G 🖂 HC (2) 🗌 TC (3) 🖂 S	SC (4)
	(3):	(5):	

4. Additional tests to be carried out:

4.1 Edge to be used for testing:

For the dynamic tests, a **sharp-edged (type B)** drawn square steel bar in accordance with EN 10278:1999-12 without radii (material C 45+C orE 335 GC (ST60) pursuant to EN 10025) shall be used. The dimensions of the steel bar shall be at least 10 $x \le 70$ mm **Observe after each test the edge is still intact otherwise use a new edge**

4.2 Test mass and sample lengths:

- 1- The test mass (steel weight as in EN 364) shall correspond to the nominal weight, but shall at least be 100 kg.
- 2- According to 4.4 and 4.5 requirements and figure 1, the manufacturer has to provide following samples for testing:
 - Dynamic performance perpendicular to the edge : L = 3,3m (exact value for lab: 3 354mm)
 - Dynamic performance with a lateral offset of 1.50m : L = 3,8m (exact value for lab: 3 807mm)
 - Dynamic strength perpendicular to the edge : L = 3,6m (exact value for lab: 3 606mm)
 - Dynamic strength with a lateral offset of 1.50m: L = 4.0m (exact value for lab: 4 030mm)

Nota: test lab can adjust the exact length specified between brackets on its test facility

if necessary anchor the device to a length of chain to achieve the 1.5 m offset.

4.3 Locking performance:

Horizontal arrangement of the retractable type fall arrester as specified by the manufacturer.

The lanyard is directed vertically downwards by means of a pulley, at a distance of 300 mm from the outlet.

When a mass of between 5 and 30 kg is attached to the lanyard, the retractable type fall arrester shall lock within a distance of 2.00 m.

4.4 Dynamic performance

In two drop tests, the retractable type fall arrester is submitted to a dynamic performance test in a horizontal arrangement as indicated by the manufacturer, similar to the test arrangement (see figure 1). The anchor point shall be situated at the same level as the edge used for testing. The distance between the anchor point and the edge must be 2.5 m. A new test sample may be used for each drop test. No support has to be placed below the case (except if the manufacturer specifies in its Instructions for use that the case has to be used level and give information of this support)

A first drop test is carried out perpendicularly to the edge and a second drop test with a lateral offset of 1.50 m. The drop weight is released from a height of 1.50 m and at a horizontal distance of 50 cm from the edge. The force is measured at the test mass and the arrest distance shall be determined. A clip can be placed on the retractable lanyard to avoid that the mass connector would hit the edge. This clip must be placed at its maximum extension length from the retractable type fall arrester (e.a. at 200mm).

- The determined braking force at the test mass shall not be greater than 6 kN.
- The retractable type fall arrester shall hold the test mass.

Both dynamic performance shall be carried out at the end stop with the full lanyard being withdrawn from the device. For this purpose, the lanyard provided by the manufacturer together with the retractable type fall arrester shall have an adequate length (Cf. to 4.2).

4.5 Dynamic strength

Two drop tests are carried out following the same test arrangement as described in 4.4. However, the drop height of the test mass is 2m above the edge. A new test sample may be used for each drop test.

The arrest distance and the braking force shall not be determined.

The retractable type fall arrester shall hold the test mass.

4.6 Static strength

After the dynamic strength test, with the same test arrangement, the force applied to the lanyard is increased to 3 kN for wire ropes or 4.5 kN for textile lanyards and is maintained for 3 min.

The lanyard shall withstand the force.

4.7 Test with non rigid anchor device

If the manufacturer claims the retractable fall arrester can be used in conjunction with a non rigid (flexible) anchor device, dynamic performance tests have to be repeated with this combination.

5. Additional information to be included in the marking:

- Advice that a horizontal use of the retractable type fall arrester over an edge type B is possible (pictogram if applicable).
- Advice that loading of the retractable type fall arrester over sharp edges should be avoided.

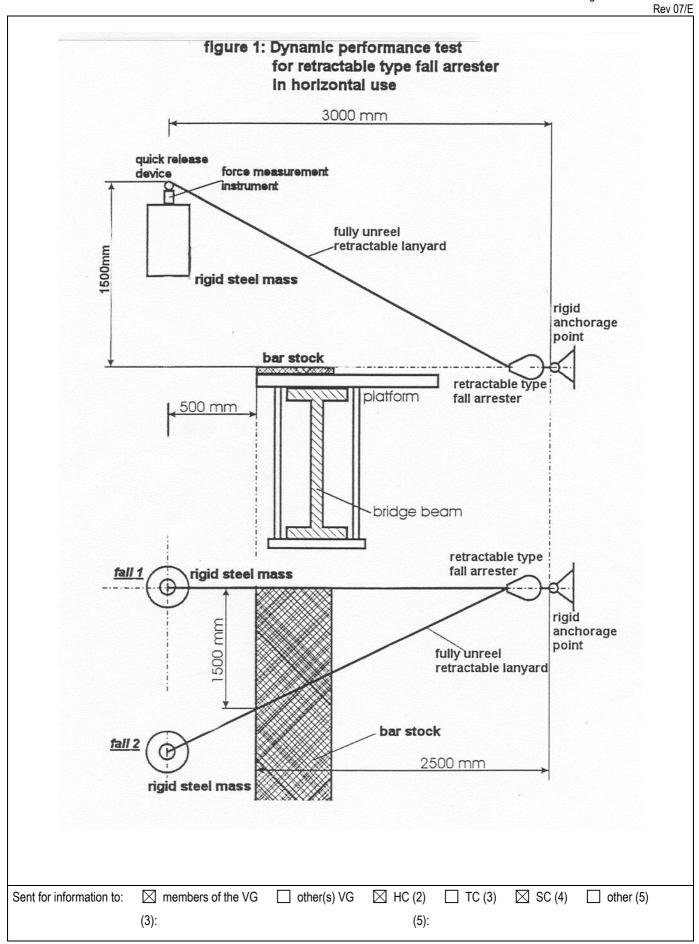
6. Additional information to be included in the instructions for use:

a) Advice that the retractable type fall arrester was tested also for horizontal use and a drop over an **type B** edge has been successfully tested.

Type B edge definition: A steel edge made of a sharp-edged drawn square steel bar in accordance with EN 10278:1999-12 without radii (material C 45+C or E 335 GC (ST60) pursuant to EN 10025). Due to this test, the equipment may be used over similar edges, as can be found e.g. trapezoidal sheet metal.

However, the following shall be considered when the equipment is used in a horizontal or transverse arrangement and a risk of a fall from a height over an edge exists:

- If the risk assessment carried out before the start of the work shows that the edge is "very cutting" and / or "not free of sharp burrs" (such as sharp edges of broken glass etc.)
 - relevant measures shall be taken before the start of the work to prevent a drop over the edge or,
 - before the start of work, an edge protection shall be mounted or
 - the manufacturer shall be contacted.
- The anchor point may only be situated at the same height as the edge at which a fall might occur or above the edge.
- 3. The required clearance below the edge at which a fall might occur shall be defined.
- 4. To attenuate a drop ending in a pendulum movement, the working area or lateral movements to both sides of the centre axis shall be limited to a maximum of 1.50 m. In other cases, no individual anchor points, but, e.g., class C or class D anchor devices in accordance with EN 795 shall be used.
- b) Indication whether the retractable type fall arrester may be used with a class C anchor device in accordance with EN 795 with a horizontal flexible anchor line. (Note: This combination must have been submitted to EC type examination). Furthermore, the deflection of the anchor device shall be taken into account when determining the clearance required below the feet of the user. To that effect, the indications specified in the instructions for use of the anchor device shall be considered.
- c) The deflection of the anchor device shall be taken into account when determining the clearance required below the feet of the user. To that effect, the indications specified in the instructions for use of the anchor device shall be considered.
- d) Advice on existing risks of injury during fall arrest when the user collides with parts of building or construction during a fall over the edge.
- e) Advice that, for the event of a fall over the edge, special rescue measures shall be defined and trained.





CNB/P/11.057 Revision 01 Language: E

Number of pages: 1	Date: 26.11.2004		Approval by :	Approved on :
Origin: Vertical Group 11 'Protec	ction against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.26.11.2004 .08.10.2012 .12.03.2013
Question related to: Directive 89	/686/EEC	EN/prEN: 3	361:2002	Other:
Annex:	Article: 10	Clause:		
Key words: marking of fall arrest attachment	points on EN 361:2002 harnesses			
Question: How could the 'A' marking appea	ar on EN 361:2002 fall arrest attachn	nent points?		
Solution: 1) Minimum height: 10 mm				
2) Letter 'A' to be no more than 5	0 mm from the attachment point			
3) Divided attachment elements	should be marked:			
	A/₂ or \triangle			
Sent for information to:	nembers of the VG	/G ⊠ H	C (2)	SC (4)



CNB/P/11.060 Revision 07 Language: F

^* * * ^	RECOMMENDA	Language. L			
Number of pages : 4	Date: 17.10.2012	Approval by :	Approved on :		
Origin: VG 11 Protection ag	gainst Falls from a Height	✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	17.10.2012 17.06.2013 19.09.2015		
Question related to : Directi	ve 89/686/EEC	EN/prEN: 360	Other:		
Annex:	Article :	Clause :			
	ype fall arrester, edge (type A) test				
Question : What tests are necessary for	r retractable type fall arresters intended	for horizontal use over an edge?			
type fall arrester is not situat 2. General requirements: The retractable type fall arre 3. Additional requirements 3.1 Locking in a horizontal 3.2 Locking in a horizontal 3.3 Dynamic performance 3.4 Dynamic strength in a	 Preliminary note: The principles for testing relate to the optional test of retractable type fall arresters. It is presumed that the anchor point of the retractable type fall arrester is not situated lower than the standing user. General requirements: The retractable type fall arrester shall comply with the requirements in accordance with EN 360:2002. Additional requirements: 3.1 Locking in a horizontal arrangement 3.2 Locking in a horizontal arrangement following optional conditioning 3.3 Dynamic performance in a horizontal arrangement when loaded over an edge with an edge radius of 0.5 mm 3.4 Dynamic strength in a horizontal arrangement when loaded over an edge with an edge radius of 0.5 mm 				
Sent for information to:		VG ⊠ HC (2) ⊠ TC (3) ⊠ S (5):	SC (4)		

4. Additional tests to be carried out:

4.1 Edge to be used for testing:

For the dynamic tests, **an edged (type A)** drawn square steel bar in accordance with DIN EN 10278:1999-12 (material C 45+C or E 335 GC (ST60) pursuant to EN 10025) shall be used. The dimensions of the steel bar shall be at least 10 x \leq 70 mm, the edge radius (0.5 +/- 0.05) mm, the surface roughness in accordance with DIN EN ISO 1302: average surface finish Ra = 3.2 μ m.

Observe after each test the edge is still intact otherwise use a new edge

4.2 Test mass and sample lengths:

- 1- The test mass (steel weight as in EN 364) shall correspond to the nominal weight, but shall at least be 100 kg.
- 2- According to 4.4 and 4.5 requirements and figure 1, the manufacturer has to provide following samples for testing:
 - Dynamic performance perpendicular to the edge : L = 3,3m (exact value for lab: 3 354mm)
 - Dynamic performance with a lateral offset of 1.50m : L = 3,8m (exact value for lab: 3 807mm)
 - Dynamic strength perpendicular to the edge : L = 3,6m (exact value for lab: 3 606mm)
 - Dynamic strength with a lateral offset of 1.50m : L = 4,0m (exact value for lab: 4 030mm)

Nota: test lab can adjust the exact length specified between brackets on its test facility

if necessary anchor the device to a length of chain to achieve the 1.5 m offset.

4.3 Locking performance:

Mount the retractable type fall arrester as indicated by the manufacturer, in a horizontal arrangement. The lanyard is directed vertically downwards by means of a pulley, at a distance of 300 mm from the outlet.

When a mass of between 5 and 30 kg is attached to the lanyard, the retractable type fall arrester shall lock within a distance of 2.00 m

4.4 Dynamic performance

In two drop tests, the retractable type fall arrester is submitted to a dynamic performance test in a horizontal arrangement as indicated by the manufacturer, similar to the test arrangement (see figure 1). The anchor point shall be situated at the same level as the edge used for testing. The distance between the anchor point and the edge must be 2.5 m. A new test sample may be used for each drop test. No support has to be placed below the case (except if the manufacturer specifies in its Instructions for use that the case has to be used level and give information of this support)

A first drop test is carried out perpendicularly to the edge and a second drop test with a lateral offset of 1.50 m. The drop weight is released from a height of 1.50 m and at a horizontal distance of 50 cm from the edge. The force is measured at the test mass and the arrest distance shall be determined. A clip can be placed on the retractable lanyard to avoid that the mass connector would hit the edge. This clip must be placed at its maximum extension length from the retractable type fall arrester (e.a. at 200mm).

- The determined braking force at the test mass shall not be greater than 6 kN.
- The retractable type fall arrester shall hold the test mass.

Both dynamic performance shall be carried out at the end stop with the full lanyard being withdrawn from the device. For this purpose, the lanyard provided by the manufacturer together with the retractable type fall arrester shall have an adequate length (Cf. to 4.2).

4.5 Dynamic strength

Two drop tests are carried out following the same test arrangement as described in 4.4. However, the drop height of the test mass is 2m above the edge. A new test sample may be used for each drop test.

The arrest distance and the braking force are not determined.

The retractable type fall arrester shall hold the test mass.

4.6 Static strength

After the dynamic strength test, with the same test arrangement, the force applied to the lanyard is increased to 3 kN for wire ropes or 4.5 kN for textile lanyards and is maintained for 3 min.

The lanyard shall withstand the force.

4.7 Test with non rigid anchor device

If the manufacturer claims the retractable fall arrester can be used in conjunction with a non rigid (flexible) anchor device, dynamic performance tests have to be repeated with this combination.

5. Additional information to be included in the marking:

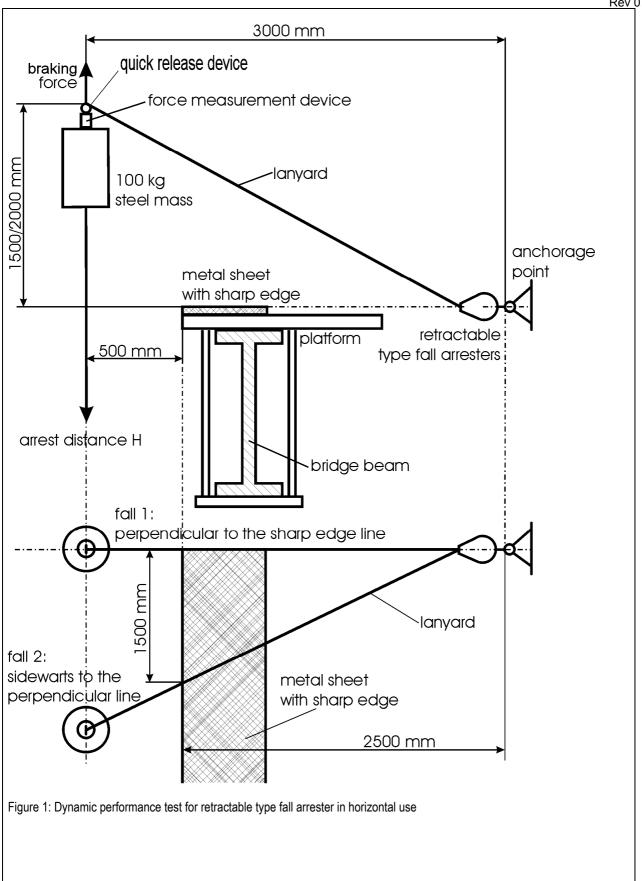
- Advice that a horizontal use of the retractable type fall arrester over an edge type A. is possible (pictogram if applicable)
- Advice that loading of the retractable type fall arrester over edges shall be avoided.

6. Additional information to be included in the instructions for use:

a) Advice that the retractable type fall arrester was tested also for horizontal use and a drop over a **Type A** edge has been successfully tested.

Type A edge definition: A steel edge with a radius of r = 0.5 mm and without burrs was used for the test. Due to this test, the equipment may be used over similar edges, as can be found e.g. at rolled steel profiles, at wooden beams or at a clad, rounded roof parapet. However, the following shall be considered when the equipment is used in a horizontal or transverse arrangement and a risk of a fall from a height over an edge exists:

- 1. If the risk assessment carried out before the start of the work shows that the edge is very "cutting" and / or "free of burrs" (such as in case of an unclad roof parapet, a rusty steel girder or a concrete edge)
 - relevant measures shall be taken before the start of the work to prevent a drop over the edge or,
 - before the start of work, an edge protection shall be mounted or
 - the manufacturer shall be contacted.
- 2. The anchor point may only be situated at the same height as the edge at which a fall might occur or above the edge.
- 3. The required clearance below the edge at which a fall might occur shall be defined.
- 4. To attenuate a drop ending in a pendulum movement, the working area or lateral movements to both sides of the centre axis shall be limited to a maximum of 1.50 m. In other cases, no individual anchor points, but, e.g., class C or class D anchor devices in accordance with EN 795 shall be used.
- b) Indication whether the retractable type fall arrester may be used with a class C anchor device in accordance with EN 795 with a horizontal flexible anchor line. (Note: This combination must have been submitted to EC type examination). Furthermore, the deflection of the anchor device shall be taken into account when determining the clearance required below the feet of the user. To that effect, the indications specified in the instructions for use of the anchor device shall be considered.
- c) The deflection of the anchor device shall be taken into account when determining the clearance required below the feet of the user. To that effect, the indications specified in the instructions for use of the anchor device shall be considered.
- d) Advice on existing risks of injury during fall arrest when the user collides with parts of building or construction during a fall over the edge.
- e) Advice that, for the event of a fall over the edge, special rescue measures shall be defined and trained.





CNB/P/11.061 Revision 03 Language: E

RECOMMENDATION FOR USE

Number of pages: 2	Date: 25.10.2007		Approval by :	Approved on :	
Origin : Vertical Group 11 'Protection against Falls from a Height'			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.11.11.2009 .08.10.2012 .12.03.2013	
Question related to: Directive 89/686/EEC EN/prEN:		EN/prEN:	795:1996/A1:2000	Other:	
Annex:	urticle:	Clause:			
Key words: Test methodology used for EN 795 class B - temporary lifeline					
Question: How to test EN 795 cla	ss B - temporary lifeline?				

Solution:

1- Type of PPE

Could be defined as:

- Anchor device EN 795
- Transportable and temporary so Class B
- Horizontal use with length adjuster

As class B, and according to JOUE 2/2000, this is a PPE

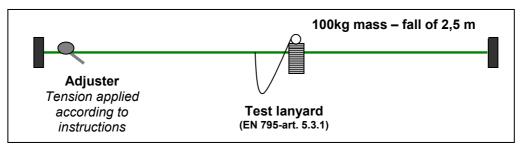
2- How to test it

Test have to be carried out with traveller specified by the manufacturer

Where possible test the maximum and minimum spans. Where this is not possible test the minimum and at least one other span. For all tests ensure the manufacture has predicted the end load and the maximum deflection within 20% of the measured values.

> Dynamic test

As EN 795 class B but with 2 tests in the mid-span of the line Requirement: keep the mass + measure deflection of the rope/webbing



Measure strength on one end (tension of adjuster, during fall), on attachment point and maximum deflection.



Sent for information to:

(3): 160 / WG1

CO-ORDINATION OF NOTIFIED BODIES PPE-Directive 89/686/EEC + amendments RECOMMENDATION FOR USE

Page 2 of 2

CNB/P/11.61
Revision 03
.anguage: E

□ TC (3) □ SC (4) □ other (5)

(5):

Number of pages :	Date: 25/10/2007		
Solution:			
> Static test As EN 795 class B but wit	th 2 tests in the mid-span of the line		
			1
	↓	F = 10 kN - 3 minutes	
S many than 4 many and	-4 DDE		
> more than 1 person: no Static: F= 10 + 1 kN per p			
> Instructions for use Instructions shall include f	following information:		
 This equipment 	is only for temporary use learance below the user/s, according to d	leflection measurements	
 Strength measu 	ured during test on ends for minimum and minimum anchor strength (including safe	maximum span	
 In case of horizon 	ontal use, recommended distance of anch nd check the good tension on the lifeline		
Tiow to obtain an	to discontine good to look on the member		

members of the VG other(s) VG HC (2)



CNB/P/11.062
Revision 02
Language: F

Number of pages: 1	Date: 23.10.2008		Approval by :	Approved on :
Origin : Vertical Group 11 'Protection against Falls from a Height'			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.23.10.2008 .08.10.2012 .12.03.2013
Question related to: Direct	tive 89/686/EEC		EN355; EN360, EN353-1	Other:
Annex:	Article: 10	and EN353 Clause:)- <i>L</i>	I
Key words: Testing with higher loads				
Question: How shall follow	ving PPE tested when the manufacturer cla	aims in the ir	nstructions a user weight grea	ter than the standard 100 kg?
Energy absorber (EN355) flexible anchorage line (35	; Fall arrester type (EN360), Guided type ir 33-2)	ncluding a riç	gid anchorage line (EN353-1)	and Guided type including a
Recommended Solution:				
	lynamically based on relevant standard wit	h standard le	oad value and with value man	ufacturer gives. Values of
	ied user weight test will be carried out with	the standar	rd 100kg	
Out for it for the		10 N		
Sent for information to:	members of the VG other(s) V (3):	/G ⊠ H	C (2)	C (4)



CNB/P/11.063 Revision 02 Language: E

Number of pages : 1	Date : 17/10/2011		Approval by :		Approved on :
Origin: VG11, Protection against falls from a height			✓ Vertical Group✓ Horizontal Committee✓ Standing Committee		
Question related to : Directive 8	39/686/EC	EN/prEN : E	N 355:2002	Othe	r:
Annex:	Article: 10	Clause :			
Key words : Energy absorber -	static test				
Question : What test method should be use	ed to carry out static test on energy al	bsorber inclu	ding an integral lanyard?		
Note 1 : Each test shall be perfo		nyard shall b	e tested according to follow	ing me	ethods:
Note 1: Each test shall be performed using a new sample Note 2: requirements apply to both fixed and adjustable lanyard 1. Static-Test for incorporated lanyard/s energy absorbers If the energy absorber is incorporated in a lanyard, the lanyard part shall be tested according to EN 354:2010. art 4.5 Note 3: twin tail energy absorbers shall be 'c-c' tested at 22kN (see 4.5 and 5.7.2.3 of EN 354:2010) whatever the design (independent or linked tail) 2. Static-Test - 3-points loading test for twin tail energy absorbers A 3-point test shall be performed starting with a situation as given in figure on the right. The legs shall be adjusted initially in line with no slack. The energy absorbing element shall be positioned perpendicular to the line of the legs. A static load of 9 kN shall be applied for 3 minutes at the attachment point of the energy absorbing element while the attachment points of the twin tail lanyards are fixed. The energy absorbing element/twin tail lanyards-system shall sustain the static load of 9 kN without failure. Note: The 9 kN test force is based on a safety factor of 1.5 on the 6 kN maximum force likely to be applied in use. Due to the force amplification effect in the legs, a 15 kN force is not considered necessary Figure: 3-point test with legs at start in line,					
Sent for information to:	nembers of the VG		rpendicular energy absorbing (2)		other (5)



CNB/P/11.064 Revision 01 Language: E

* * *	REC	COMMENDATION FOR			
Number of pages: 1	Date: 25.10.2007		Approval by :	Approved on :	
Origin : Vertical Group 11 'Protection against Falls from a Height'		a Height'	✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	25.10.2007 08.10.2012 12.03.2013	
Question related to:		EN/prEN:	353:2002	Other:	
Annex:	Article:	Clause:		U	
Key words: different fall arrestors for fa	ıll arrest systems				
			anchor device (i.e. fall arrester alled the cable and anchor bra		
•	ased on the combinations of e ser must take responsibility to		en tested to and passed the re ed combinations are used.	quirements	
Sent for information to :	members of the VG	other(s) VG (3):	HC (2)	SC (4)	



CNB/P/11.067
Revision 01
Language · F

(2)				
Number of pages : 1	Date: 25.10.2007	Ap	pproval by :	Approved on :
Origin : VG11 Protection a	gainst Falls from a Height	✓		
		☑	Horizontal Committee	08.10.2012
			Standing Committee	12.03.2013
Question related to :TC 13	6	EN/prEN: 568	3	Other:
Annex:	Article:	Clause :§ 4.2.	4.3.	
Key words :				
Ice anchors, Resistance to	fracture			
Question :				
	d be used for the resistance to fracture and	d holding power	r of ice anchors instead of	the ice type 2 defined in EN
568?				
Solution :				
	n be alternatively replaced by a block of ce	llular concrete v	with following characteristi	ر .
➤ Material : cellular co		ilulai coriorcio	with following characteristi	0 .
➤ Density: 550 kg/m³	•			
Compressive streng	gth : 4.5 MPa ± 0.25 MPa			
Minimum dimension	ns : Width : 200 mm, Height : 400 mm, Dep	oth: 250 mm		
➤ High, low, left and ri	ight faces have to be held with metal plate	s to avoid crack	S	
-	eatment for the test has to be analogue to			
	of the standard still apply for this test	00 1990 2		
All other requirements	of the standard still apply for this test			
Sent for information to :		☑ HC (2)	☑ TC (3) ☑ SC (4)



CNB/P/11.068 Revision 01 Language: E

200				
Number of pages: 1	Date: 23.10.2008		Approval by :	Approved on :
Origin : Vertical Group 11 'F	Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.11.11.2009 .08.10.2012 .12.03.2013
Question related to: Directiv	re 89/686/EEC	EN/prEN: 1	12278:2007	Other:
Annex:	Article:	Clause: 4.2	<u>)</u>	
Key words:				
Pulley, sheaves, static stren	ngth test			
Question:				
How to test pulleys v	vith more than one sheave whe	en they a	re not intended for inc	dividual use?
Solution:				
When not intended to	o be used individually they sha	all be teste	ed together as per in	use.
Sent for information to:	members of the VG other(s) V	/G ⊠ H	C (2) X TC (3) X	SC (4)
(;	3):		(5):	



CNB/P/11.069
Revision 02
Language: E

Number of pages: 1	Date: 23.10.2008		Approval by :	Approved on :	
Origin : Vertical Group 11 'Protection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.11.11.2009 .08.10.2012 .12.03.2013		
Question related to: Directive	89/686/EEC	EN/prEN: 3	361 :2002, Other:		
Annex:	Article:	Clause: 4.2	2	u	
Key words:		1			
Synthetic fibre, breaking tenac	city				
Question:					
How to confirm breaking	ng tenacity of synthetic fibre a	as 0,6 N/	tex?		
0.1.11					
Solution:	5. V. (V.				
VG11 members requir declaring the minimum	re confirmation (e.g. certificate n breaking tenacity of synthet	e of confo ic fibres a	ormity) in manufacture as 0.6 N/tex.	er's technical file	
Note: this requirement	t is not applicable to accessor	ry straps.			
Sent for information to:	members of the VG other(s) V	/G 🛚 H	C (2)	SC (4)	
(3):	_		(5):	, o (.) — outlot (o)	
(0).	•		(♥).		



CNB/P/11.070
Revision 01
Language: E

1000				
Number of pages: 1	Date: 23.10.2008		Approval by :	Approved on :
Origin : Vertical Group 11 'Prote	ection against Falls from a Height'		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	.08.10.2012 .12.03.2013
Question related to: Directive 89	9/686/EEC	EN/prEN: 1	5567-1 :2007	Other:
Annex:	Article:	Clause:		"
Key words: Rope, zip wire, tyrolean activity				
Question:				
Are ropes designed for	'zip wire' activity (also name	ed as 'tyro	olean') PPE ?	
Nota: zip wire: recreation cable)	onal activity in which the par	ticipant gi	ides under gravity on	a rope (or a wire
	is not considered PPE and s product is defined as a 'zip		•	
	members of the VG	/G ⊠ H	C (2) X TC (3) X S	SC (4)
(3):	monipole of the vo offici(s) v		(5):	(T) Outlot (0)



CNB/P/11.071 Revision 02 Language: E

Number of pages : 1	Date: 11/11/2009	Δr	oproval by :	Approve	ed on ·	
			<u> </u>			
Oligin . VGTT, Protection agains	rotection against falls from a height		Vertical Group		3/10/2010	
			7		/10/2012	
			Standing Committee	12	2/03/2013	
Question related to : Directive 8	39/686/EC	EN/prEN : EN	N 358	Other:		
Annex :	Article: 10	Clause :				
Key words : Restrain lanyard, b	pelt, category					
Question :						
Are restrain equipment	(lanyard and/or belt) PPE?					
Solution:						
Yes, restrain equipment	t (lanyard and/or belt) are Pl	PE against	fall from a height ca	tegory 3.		
They shall be tested acc	cording to EN 358:1999 as v	work positic	oning equipment (lar	yard and/o	or belt)	
Instructions for use shall slack.	Il specify that it is for restrain	n system or	nly and should not b	e used with	n free fall or	
Sent for information to:	members of the VG		2) M TC (2) M C	<u> </u>	thor (5)	
Sent for information to: (3):	members of the VG	•	2) 🛛 TC (3) 🖾 S 5):	J (4) □ 0	ther (5)	



CNB/P/11.072 Revision 01 Language: E

Number of pages : 1	Date : 12/10/2011		Approval by	·:		Approved on :
Origin: VG11, Protection against falls from a height			□ Vertical Group □ Horizontal Committee □ Standing Committee			12/10/2011 08/10/2012 12/03/2013
Question related to : Directive 89/686/EC EN/prEN :		EN/prEN : E	EN 813 Othe		Othe	r:
Annex:	Article: 10	Clause :				
Key words: work positioning, o	lynamic test, torso dummy	I				
Question :						
	3 dynamic test result when to not take place in reality?	the specifi	ed type o	of rigid dumn	ny sli	ps out of the PPE
Solution:						
VG11 consider only the	first impact as important for	r assessir	g compli	ance.		
Sent for information to: (3):	members of the VG	/G ⊠ H0	C (2)	TC (3) S	SC (4)	other (5)



CNB/P/11.073 Revision 02 Language: E

* * *	RECOMMENDATION FOR USE			
Number of pages: 13 Date: 13/10	/2010	Approval by :	Approved on :	
Origin : VG11, Protection against falls from a height		✓ Vertical Group✓ Horizontal Committee✓ Standing Committee	13/10/2010 08/10/2012 12/03/2013	
Question related to:	EN/prEN:	EN 353-1	Other:	
Annex: Article: 10	Clause:			
Key words: EN 353-1, withdrawal of harmonized list, back fall test, sideway fall				
Question:				
How to assess guided type fall arrester including a rigid anchor line after the withdrawal of EN 353-1:2002 from PPE standards harmonised list?				
Proposed solution:				
The EU OJ dated 23.3.2010 withdrew the presumption of conformity of EN 353-1:2002, because the basic health and safety requirements of clauses 1.1.1, 1.4 and 3.1.2.2 of Annex II to Directive 89/686/EEC are not considered to be satisfied by the standard.				
The European Coordination of Notified Bodies for PPE against fall from a height VG11 has approved on its 20 th meeting (October 2010) the following decisions:				
1- Notified Bodies cannot anymore issue EC type examination certificates based solely on EN 353-1:2002				
2- For recertification of product (or modified or new product) Notified bodies shall follow requirements described in following pages.				
Sent for information to:	e VG □ other(s) VG ⊠ H	HC (2)	C (4)	

Requirements and test procedure for Guided type fall arresters including a rigid anchor line

Preliminary remarks:

- 1- All requirements of EN 353-1:2002 have to be applied
- 2- Applicable articles coming from prEN 353-1:2008 listed in the table are detailed after the table on annexe 1
- 3- Applicable articles coming from CEN/TC160/WG2 N446 listed in the table are detailed after the table on annexe 2

	cs, material and	1	F
	EN 353-1:2002	From prEN 353-1:2008	From WG2 N446 repor
General	4.1 and 4.2	4.1	
End Stop A The guided type fall arrester does not become detached unintentionally		4.1.2 5.1	
End Stop B Has to stop the gtfa under load		4.1.2 5.1	
End Stops Shall be designed so that they may only be opened by deliberate manual action		4.1.2 5.1	
Connecting Element(s) Shall be permanently attached to the guided type fall arrester		4.1.2 5.1	
Guided type fall arrester Shall be capable of accompanying the user during upward and downward changes of position without requiring manual intervention		4.1.2 5.1	
	Locking		
	EN 353-1:2002	From prEN 353-1:2008	From WG2 N446 repor
General	4.3 5.1		
St	atic strength		
	EN 353-1:2002	From prEN 353-1:2008	From WG2 N446 repor
Energy absorber preloading		4.2.1 5.2.2	
General Rigid anchor line with the guided type fall arrester	4.4 5.2	4.2.2.1 5.2.2	
Non metallic materials		4.2.2.2 5.2.3	
Wire rope systems where the dynamic load on the top anchor exceeds 6kN		4.2.2.3 5.2.4	
Lateral strength on the guided type fall arrester		4.2.2.4 5.2.5	
End stop A		4.2.3.1 5.2.6.1	
End stop B		4.2.3.2 5.2.6.2	

Dynamic performance					
	EN 353-1:2002	From prEN 353-1:2008	From WG2 N446 report		
Performance test	4.5 5.3				
Cold conditions test		4.3.1 5.3.2			
Orientation of the rigid anchor line		4.3.2 5.3.3			
Dyn	amic strength				
	EN 353-1:2002	From prEN 353-1:2008	From WG2 N446 report		
End stop B Has to stop the guided type fall arrester during a fall		4.4 5.4.2			
Min Distance to address the influence of the posture of the user above the guided type fall arrester			1 – Dmin		
Max Distance to address the increase of the distance between the anchor line and the centre of gravity of the user			2 – Dmax		
Fall Back to address the backward fall scenario			3 – FB		
Sideway fall to address the sideway fall scenario			4 - SW		
Corrosion Resistance					
	EN 353-1:2002	From prEN 353-1:2008	From WG2 N446 report		
General	4.6 5.4				
Marking					
	EN 353-1:2002	From prEN 353-1:2008	From WG2 N446 report		
General Requirements	4.7 6				
Correct orientation of the guided type fall arrester		4.5 6			
Model and type/identification mark		4.5 6			

Information supplied by the manufacturer				
	EN 353-1:2002	From prEN 353-1:2008	From WG2 N446 report	
General Requirements	4.7 7			
General		4.5 7.1		
Storage, cleaning, maintenance, servicing, disinfection, packaging		4.5 7.1 8		
Instruction for installation		4.5 7.2		
Instruction for use		4.5 7.3		

ANNEX 1

Relevant requirements and test methods of prEN 353-1:2008 with WG2 up-dates

3 Terms and definitions

3.10 - stop type A

stop device fitted to the rigid anchor line to prevent the guided type fall arrester from passing the device unintended during ascent or descent

3.11 - stop type B

stop fitted to the rigid anchor line to prevent the guided type fall arrester from passing the device unintended in a fall

3.12 - maximum rated load

maximum mass of the person, including tools and equipment carried, as specified by the manufacturer

4 Requirements

4.1 Materials and construction

4.1.1 Materials

- **4.1.1.1** A rigid anchor line shall be a rail or a wire rope. The material of a rigid anchor line made from wire rope shall be steel and its minimum diameter shall be 8 mm.
- **4.1.1.2** Wire ropes that are not made from stainless steel shall be galvanized in accordance with ISO 2232.
 - NOTE Manufacturers of guided type fall arresters including a rigid anchor line should be aware that stainless steel can be susceptible to pitting and stress corrosion cracking where chloride levels are high.
- **4.1.1.3** Where a ferrule is used in a termination, it shall be made from ductile metallic material.
- **4.1.1.4** Fibre ropes, webbing and sewing threads shall be made from virgin filament of multifilament synthetic fibres, suitable for their intended use. The braking tenacity of the synthetic fibres shall be known to be at least 0,6 N/tex.
- **4.1.1.5** Materials used in the guided type fall arrester, including a rigid anchor line, which may come into contact with the skin of the user, shall not be known to cause irritating or sensitization effects during intended use.
- **4.1.1.6** When checked in accordance with 5.1, the guided type fall arrester, including a rigid anchor line, shall have no sharp edges and burrs that may cause injury to the user.

4.1.2 Construction

- **4.1.2.1** The anchor line shall be so designed that it prevents any unintentional separation of the guided type fall arrester from the rigid anchor line.
- **4.1.2.2** The connecting element(s) shall be permanently attached to the guided type fall arrester.
- **4.1.2.3** A guided type fall arrester shall be capable of accompanying the user during upward and downward changes of position without requiring manual intervention.
- **4.1.2.4** If the guided type fall arrester is equipped with any load-bearing element made from textiles, the guided type fall arrester shall have a means of protection against environmental influences (e.g. the guided type fall arrester is removable from the rigid anchor line by the user).
- **4.1.2.5** When a guided type fall arrester includes non-metallic elements, e.g. an energy absorber, these elements (including extremities) shall be fully protected against abrasion.
- **4.1.2.6** If the guided type fall arrester is removable by the user from the rigid anchor line, other than by removing it from the ends of the anchor line, the guided type fall arrester or the rigid anchor line shall be so designed that the guided type fall arrester can only be detached by at least two consecutive deliberate manual actions.
- **4.1.2.7** End stops shall be designed so that they may only be opened by deliberate manual action.
- **4.1.2.8** Connectors used in or as a connecting element shall conform to EN 362.

4.2 Static strength

4.2.1 Energy absorber preloading

If any part of the guided type fall arrester including the rigid anchor line is fitted with an energy absorber then the energy absorber shall be tested in accordance with 5.2.2. The permanent extension caused by activation of an energy absorber after pre-loading with 2 kN shall not be greater than 50 mm (value to be updated depending on WG2 decision)

4.2.2 Guided type fall arrester including rigid anchor line

- **4.2.2.1** When tested in accordance with 5.2.2, the rigid anchor line with the attached guided type fall arrester shall sustain a force of $(15^{+0.2})$ kN.
- **4.2.2.2** If any load-bearing element of the rigid anchor line e.g; energy absorber is made from non-metallic materials, then those parts shall sustain a force of $(22^{+0.2})$ kN when tested in accordance with 5.2.3. If the guided type fall arrester remains permanently connected to the rigid anchor line, includes non-metallic load bearing elements and cannot be stored in accordance with the information supplied by the manufacturer, non metallic elements shall also sustain a force of $(22^{+0.2})$ kN when tested in accordance with 5.2.3 (if the guided type fall arrester can be removed it shall sustain a load of 15kN).
- NOTE The synthetic materials may be tested as part of the total system or be isolated from the metallic parts.
- **4.2.2.3** For rigid anchor lines made from wire rope that have been tested in accordance with 5.3 of EN 353-1:2002 and have a peak load at the top anchor greater than 6 kN, the wire rope and all other elements from the top of the anchor line e.g. an energy absorber, but excluding the guided type fall arrester, shall be tested in accordance with 5.2.4 and shall hold a load of 2,5 times (*0.2) kN that maximum peak recorded load
- **4.2.2.4** When tested in accordance with 5.2.5 the rigid anchor line with the attached guided type fall arrester shall sustain a force of 1 (0, +0,2) kN without releasing the guided type fall arrester. After the test the rigid anchor line shall not present a permanent deformation such that the normal functioning of the guided type fall arrester is impaired

Comment: objective is to avoid guided type fall arrester to be detached from the rigid anchor line with a lateral movement

4.2.3 End stops

- **4.2.3.1** When tested in accordance with 5.2.6.1, stops type A shall hold a load of $(2^{+0.2})$ kN (deformation is acceptable).
- **4.2.3.2** When tested in accordance with 5.2.6.2, stops type B shall hold a load of $(12^{+0.2})$ kN. (deformation is acceptable)

4.3 Dynamic performance

4.3.1 Cold conditions test

The guided type fall arrester shall be conditioned in accordance with 5.3.2 at the coldest temperature claimed by the manufacturer and tested in accordance with article 5.3 of EN 353-1:2002. The rigid test mass shall be equivalent to the maximum rated load, with a tolerance on the mass of $\binom{+2\%}{0}$ kg and a minimum of 100 $\binom{+2}{0}$ kg. The mass shall be held clear of the ground and the arrest distance H shall not exceed 1 m.

4.3.2 Orientation of the rigid anchor line

Where the manufacturer claims that the rigid anchor line can be used at angles/deviations greater than 1° from the vertical, the guided type fall arrester shall be tested in accordance with 5.3.3. Individual tests shall be carried out for the backward angle, the sideways angle, and the combination of both, if both are permitted, up to the maximum angle as recommended by the manufacturer. The test mass shall be held clear of the ground and the vertical arrest distance H shall not exceed 1 m. The test mass shall be equivalent to the maximum rated load, with a minimum of 100 kg and a tolerance of $\binom{+2\%}{0}$ kg.

Note: limit the orientation test to vertical or at least to maximum angle(s) for which the EN 353-1:2002 requirement can be met (instruction for installation shall conform).

4.4 Dynamic strength on end stop type B

When tested in accordance with 5.4 with a test mass equivalent to the maximum rated load, with a tolerance on the mass of $\binom{+2\%}{0}$ kg, and a minimum of $\binom{100}{0}$ kg, the guided type fall arrester shall retain the test mass on the rigid anchor line.

4.5 Marking and information

Marking of the guided type fall arrester including a rigid anchor line shall be in accordance with clause 6. Information shall be supplied with the guided type fall arrester including a rigid anchor line in accordance with clause 7.

5 Test methods

5.1 General examination of material and construction

- 5.1.1 Confirm by reference to appropriate documentation accompanying the guided type fall arrester including a rigid anchor line and by normal or corrected vision and/or tactile examination and/or by measurement of the guided type fall arrester including a rigid anchor line that they conform to 4.1.1, 4.1.2.2, 4.1.2.5, 4.1.2.7. If necessary to examine internal components, dismantle the component.
- 5.1.2 Install a specimen of rigid anchor line (including a joint if the anchorage line is a rail, intermediate bracket if applicable) and the guided type fall arrester to verify 4.1.2.1, 4.1.2.3, 4.1.2.4, 4.1.2.6.

5.2 Static test

5.2.1 Apparatus

The static strength test apparatus shall conform to 4.1 of EN 364:1992.

5.2.2 Guided type fall arrester including rigid anchor line

Install the specimen of rigid anchor line (including a joint if the anchorage line is a rail) and the guided type fall arrester in the test machine such that the test force is applied simultaneously to the rigid anchor line (and joint, if the rigid anchor line is a rail), and the guided type fall arrester. Submit these to the specified static test force in the direction of loading, in the event of a fall, for a period of $(3^{+0.25})$ min.

5.2.3 Non-metallic materials

Install the specimen in the test machine. Submit to the specified static test force in the direction of loading, in the event of a fall, for a period of $(3^{+0.25})$ min.

5.2.4 Wire rope systems where the dynamic load on the top anchor exceeds 6 kN

Install the specimen of rigid anchor line made from wire rope, including all other elements from the top of the anchor line, in the test machine such that the test force is applied simultaneously to the rigid anchor line and components. Submit these to the specified static test force for a period of $(3^{+0.25})$ min.

5.2.5 Lateral strength on the guided type fall arrester

For a rigid anchor line made from rail, position the guided type fall arrester between two structural anchors , at least 1 m from one of the structural anchors . Apply the test force to the attachment element of the guided type fall arrester in a orthogonal direction to the working axis in order to obtain the maximum torque moment and maintain the force for a period of (3 0/+0.25) min.

Repeat the test, with the guided type fall arrester positioned at a joint, if applicable.

Repeat the test, with the guided type fall arrester positioned at a structural anchor.

For a rigid anchor line made from wire rope, carry out the test at an intermediate bracket, if applicable.

Comment: it is suggested that side way static test is unuseful on wire rope as the guide type fall arrester would rotate

5.2.6 End stops

5.2.6.1 Method for end stops type A

Install the specimen of rigid anchor line including the end stop type A, and the guided type fall arrester in the test machine. Set the guided type fall arrester in the unlocked mode and position it below the end stop type A. Apply the specified static test force to the guided type fall arrester via its connecting element such that the force is also applied to the end stop type A for $(3^{+0.25}_{0})$ min.

5.2.6.2 Method for end stops type B

Install the specimen of rigid anchor line including the end stop type B, and the guided type fall arrester in the test machine. Set the guided type fall arrester on an initially unlocked mode and position it above the end stop type B. Apply the specified static test force to the guided type fall arrester via its connecting element such that the force is also applied to the end stop type B for $(3^{+0.25})$ min.

5.3 Dynamic performance tests

5.3.1 Apparatus

The test apparatus shall conform to 4.4, 4.5 and 4.6 of EN 364:1992.

5.3.2 Cold conditions test

Place the guided type fall arrester in a refrigerated chamber for (2 ± 0.1) h at a temperature in accordance with the coldest temperature claimed by the manufacturer $(\frac{0}{-2})$ °C. Remove the guided type fall arrester from the refrigerated chamber and within 90 s attach it to the rigid anchor line and carry out the test according to 5.3 of EN 353-1:2002

5.3.3 Orientation of the rigid anchor line

- Secure the rigid anchor line at the maximum backwards angle from the vertical, in accordance with the information supplied by the manufacturer.
- Attach the guided type fall arrester by means of its connecting element to the test mass.
- Position the guided type fall arrester on the rigid anchor line at a maximum of 300 mm from the top anchor, but, where an intermediate anchor is fitted, mid-way between the top and the intermediate anchor.
- Hold the mass by the quick release device. Raise the mass above the guided type fall arrester to its maximum height and at the closest distance to the rigid anchor line.
- Let the mass fall without initial velocity. After the fall and with the mass at rest, measure the vertical displacement H of the point of attachment of the mass.
- Repeat the test 5.3.5.2 to 5.3.5.5 for the maximum sideways angle (± 1°) in accordance with the information supplied by the manufacturer.
- Repeat the test 5.3.5.2. to 5.3.5.5 for the maximum combination of the backwards and sideways angle (± 1°) in accordance with the information supplied by the manufacturer.

5.4 Dynamic strength on end stop type B

5.4.1 Apparatus

The test apparatus shall conform to 4.4, 4.5 and 4.6 of EN 364:1992.

5.4.2 End stop type B

- Install the specimen of rigid anchor line including the end stop type B, and the guided type fall arrester.
- Position the guided type fall arrester just above the end stop type B and set it in the unlocked mode.
- Attach the guided type fall arrester by means of its connecting element to the test mass.
- Raise the mass as far above the guided type fall arrester as the connecting element permits and at a
 maximum of 300 mm horizontally from the rigid anchor line. Hold the mass by the quick release device.
 Release the mass fall without initial velocity.

6 Marking

VG11 recommends that marking includes both EN 353-1:2002 and VG11 RfU11.073

Marking on the guided type fall arrester and the rigid anchor line shall conform to EN 365:2004 and in addition shall include the following:

- a) Marking on the guided type fall arrester:
 - the maximum rated load;
 - if the guided type fall arrester can be removed from the rigid anchor line, an indication on the guided type fall arrester of the correct orientation in use and the model and type/identification marks of the appropriate rigid anchor line:
- b) Marking on the rigid anchor line or adjacent to the rigid anchor line:
 - if the guided type fall arrester can be removed from the rigid anchor line, an indication about model and type/identification marks of the appropriate guided type fall arrester;
 - the maximum number of users and the minimum distance between each user.

7 Information supplied by the manufacturer

7.1 General

The information supplied by the manufacturer shall be provided in the languages of the country of destination. It shall conform to EN 365:2004.

7.2 Installation

In addition to conforming to EN 365:2004, the information supplied by the manufacturer shall include advice or information on installation as follows:

- a) instructions for the installation of the rigid anchor line including the maximum angle of installation from the vertical;
- b) that if the rigid anchor line is a wire rope it shall be anchored to the top and bottom of a structure and the rope shall be tightened to a minimum equivalent force of 0,8 kN;
- c) that if the end stop has not been tested to clause 5.4, it shall be clearly stated that the bottom of the rigid rail can only be terminated where there is a no fall hazard;
- d) additional information on the maximum load which will be applied to the anchorage, based on the result of the dynamic performance test of EN 353-1:2002
- e) that all points of the rigid anchor line where the guided type fall arrester could unintentionally run off the rigid anchor line and there is or could be a fall hazard shall be fitted with an end stop.

7.3 Instructions for use

In addition to conforming to EN 365:2004, the information shall include advice or information on installation as follows:

- a) the specific conditions under which the guided type fall arrester including a rigid anchor line may be used;
- b) that the weight of the user, including clothing and equipment, shall not exceed the maximum rated load marked on the guided type fall arrester;
- c) on how to connect the connecting element to a full body harness, including a clear statement on the required
 position of the harness attachment point, and that the harness attachment point should be at the position of the
 sternum i.e. a front attachment point; a warning that the full body harness should be properly adjusted to a
 snug fit and should not be used if loose;
- d) a warning that the length of the connecting element shall not be extended or shortened, e.g. by adding or subtracting a connector;
- e) if the guided type fall arrester can be removed from the rigid anchor line, that only the type and model of rigid anchor line and guided type fall arrester, as tested to this standard, shall be used;
- f) the correct way of operating the guided type fall arrester on the rigid anchor line;
- g) if the guided type fall arrester can be removed from the rigid anchor line, how to attach and detach it;
- h) if a complete system is supplied, that components of any complete system shall not be substituted unless agreed by the manufacturer of the complete system;
- i) advice that for the first two metres the user may not be protected against hitting the ground and that extra care should be taken when ascending or descending;
- j) that for those systems which permit more than one user there should be a recommendation that there should be a minimum distance of 3 m between the feet of the upper person and the head of the lower person;
- k) a warning that engaging the guided type fall arrester's release function or handling the guided type fall arrester during ascent or descent can hinder the safe operation of the braking mechanism;
- advice that it is essential for the safety of the user that any engagement of the guided type fall arrester's
 release function or handling of the guided type fall arrester during ascent or descent is only carried out from a
 safe position where there is no risk of a fall;
- m) that the guided type fall arrester shall not be used for work positioning and that if work positioning is required, a separate system shall be used;
- n) the coldest temperature at which the guided type fall arrester including the rigid anchor line may be used.

8 Packaging

Packaging shall conform to EN 365:2004

ANNEX 2

Relevant requirements and test methods of CEN/TC160/WG2 N446

1- Dmin: Minimum distance dynamic test

1.1 Requirement

When tested in accordance with the maximum rated load test mass (and at least 100kg), the maximum arrest distance H1 shall be 1m and H2 shall be measured

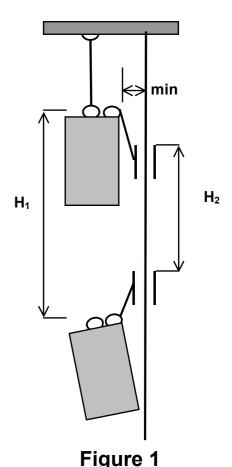
with

 $H_{\rm 1}$: vertical displacement of the mass measured on the inner contact point between the lateral eyebolt and the connecting element of the fall arrester

H₂ locking distance to be measured on the rigid anchor line between initial and final position of the guided type fall arrester.

1.2 Test method

- Secure the rigid anchor line in accordance with the information supplied by the manufacturer and with a length that provides at least 2m of the rigid anchor line below the fall arrester's initial position, Rail systems shall be secured on the top against vertical movement.
- Attach the guided type fall arrester to the rigid anchor line in accordance with the information supplied by the manufacturers
- Attach the guided type fall arrester by means of its connecting element to the lateral eyebolt of the test mass according to article 4.5 of EN 364:1992 with a distance from the edge of 30mm +-5mm.
- Position the guided type fall arrester on the rigid anchor line at a maximum of 300 mm from the top anchor for wire systems or top fixing point for rail systems or, where an intermediate anchor is fitted, mid-way between the top and the intermediate anchor.
- Hold the central eyebolt of the rigid steel mass by the quick release device.
- Raise the mass vertically in the same plane as the rigid anchor line and the guided type fall arrester to its maximum height and at the closest distance to the rigid anchor line (the rigid steel mass might be in contact with the guided type fall arrester but shall not be above the guided type fall arrester), see figure 1.
- Let the mass fall without initial velocity. After the fall and with the mass at rest, measure the vertical displacement H₁ and H₂



2- Dmax: Maximum distance dynamic test

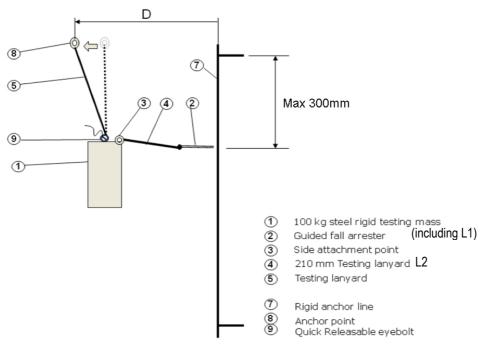


Figure 2: Maximum distance dynamic test

2.1 Requirement

When tested with the maximum rated load test mass (and at least 100kg) the arrest distance H shall not exceed $2L_1+L_2+1m$ with

H : vertical displacement of the mass measured on the inner contact point between the lateral eyebolt and the connecting element of the fall arrester

L₁: length of the guided fall arrester lanyard

 L_2 : additional test lanyard (to simulate flexibility of harness and body positioning). L_2 = (210 +/- 5)mm. Use as many screwlink connectors (EN362 type Q) as necessary to achieve L_2

2.2 Test method

- Install the system in accordance with figure 2 with at least 2m of rigid anchor line below the fall arrester initial position
- Rail systems shall be secured on the top against vertical movement .
- Attach the guided type fall arrester to the rigid anchor line in accordance with the information supplied by the manufacturers
- Secure the rigid anchor line in accordance with the information supplied by the manufacturer.
- Connect the guided type fall arrester to the rigid anchor line
- Connect the 210mm test lanyard to the guided type fall arrester
- Connect the 210mm test lanyard to the offset eyebolt of the steel rigid mass.
- Position the guided type fall arrester on the rigid anchor line at a maximum of 300 mm from the top anchor, but, where an intermediate anchor is fitted, mid-way between the top and the intermediate anchor.
- Hold the mass by the quick release device from the centre eybold
- Move the rigid steel mass to its furthest distance away from the rigid anchor line.
 Whenever the guided type fall arrester can move freely (down) when applying a backward force, test it in
 an unlocked position. If necessary, increase the distance D until the guided type fall arrester becomes fully
 unlocked. If necessary lift the mass.
- Let the rigid steel mass fall. After the fall and with the mass at rest, measure the displacement H of the point of attachment of the mass.

3- FB: Fallback falls dynamic test

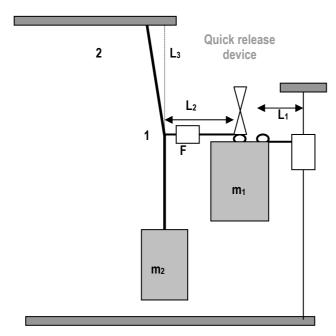


Figure 3: Fallback fall dynamic test

Legend

m₁ = maximum rated load

 $m_2 = 150 \text{ kg}$

 L_1 = length of the connecting element of the guided fall arrester

L2 = (0.5 ± 0.1) m, rigid quick link including the load cell

F = (150 +/-20)N, initial tension (applied by moving attachment of m2)

- L3 = length between the centre of the pulley and the upper attachment point of the lanyard of the mass m2. L3 = (3 000+/- 50)mm
- **1-** Pulley to connect load cell (proposal: diameter less than 5cm)
- 2- Guiding test lanyard: wire rope 8mm 7x19 Galvanized

3.1 Requirement

When tested in accordance with the maximum rated load test mass (and at least 100kg), the maximum arrest distance H1 shall be 1m and H2 shall be measured

with

 H_1 : vertical displacement of the mass measured on the inner contact point between the lateral eyebolt and the connecting element of the fall arrester

H₂ locking distance to be measured on the rigid anchor line between initial and final position of the guided type fall arrester.

3.2 Test method

See figure 3

Move m1 in such a way that L1 is horizontal until the guided type fall arrester is unlocked. If necessary, lift m1 until the guided type fall arrester unlocks.

Connect the load cell to the lanyard of m2 and move the guided test lanyard supporting m2 until the required force F is reached

Let the rigid steel mass fall. After the fall and with the mass at rest, measure the displacement H1 and H2 of the point of attachment of the rigid steel mass

4- SW: Sideway maximum distance dynamic test

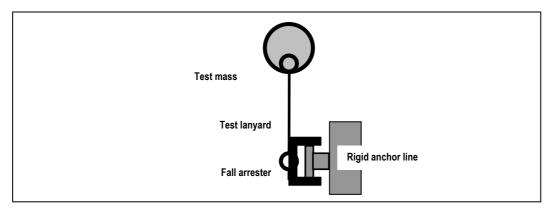


Figure 4: Sideway maximum distance dynamic test

4.1 Requirement

Same as "Maximum distance dynamic test"

4.2 Test method

Same as "Maximum distance dynamic test" except a lateral release of the test mass

Note 1: the guided type fall arrester shall be tested in unlocked position

Note 2: The sideways test does not need to be carried out on wire cable if the fall arrester can rotate freely on the rigid anchor line even when passing intermediate anchor (if existing).

Note 3: if the fall arrester is not vertically symmetrical, repeat the test on the other side



CNB/P/11.077 Revision 01 Language: E

Number of pages : 1	Date : 12/10/2011		Аррі	roval by :		Approved on :
Origin: VG11, Protection against	t falls from a height		☑ Vertical Group 12/10/			12/10/2011
						08/10/2012
				Standing Committee		12/03/2013
Question related to : Directive 89	9/686/EC	EN/prEN:	EN 7	95 + A1	Othe	r:
Annex:	Article : 10	Clause :				
Key words: anchor device, class	s B, car					
Question :						
1/ Can a car be used as	a transportable temporary	anchor d	evic	e class B?		
2/ Can a PPE be attache	ed to a car?					
Solution:						
1/ No a car is not a trans	portable temporary anchor	device c	lass	B and so not a Pl	PE.	
In that case, the part of t	d as structure with a PPE. he car used to connect the I load (requirement applical		•		full	car should be
arrester to the car. Inst.	cific temporary anchor de ructions for use should tal t, orientation, brakes, enga	ke into a	cco	unt specificities a	nd v	ariability's of cars
Sent for information to:	nembers of the VG other(s) V	'G ⊠ H	C (2)		C (4)	other (5)
(0).			(-/			



CNB/P/11.079 Revision 01 Language: E

·					
Number of pages : 1	Date : 12/10/2011		Approval by :	Appr	oved on :
Origin: VG11, Protection again	nst falls from a height		☑ Vertical Group		12/10/2011
			Horizontal Committee		08/10/2012
			Standing Committee		12/03/2013
Question related to : Directive	89/686/EC	EN/prEN : :	EN 360, EN 364	Other:	
Annex :	Article : 10, 11A	Clause :			
Key words : dynamic performa	ance				
Question :					
	etractable fall arrester includ extracted from the end of the				
Solution:					
Because the goal of this dynamic performance test is to generate a 600mm free fall, the first sentence of the article 5.7.2.2 of EN 364:1992 shall be replaced by: "Withdraw and fix the retractable lanyard in such a way that when the mass is raised to the same level as the bottom of the clip fitted to the retractable lanyard, it generates a 600mm free fall." (see TC160/WG2 doc N477 12/01/11) NOTE: Devices including a permanently connected element (meaning "a lanyard which is not detachable from the retractable lanyard of the fall arrester") longer than 600mm are not covered by either this VG11 sheet or EN 360.					
Sent for information to: (3):	members of the VG	/G ⊠ HC	C (2)	C (4)	other (5)



CNB/P/11.080 Revision 01 Language: E

Number of pages : 1	Date : 12/10/2011	Ap	proval by :		Approved on :
Origin: VG11, Protection against	st falls from a height	\boxtimes	✓ Vertical Group		12/10/2011
			=,		08/10/2012
			Standing Committee		12/03/2013
Question related to : Directive 8	39/686/EC	EN/prEN : EN	353-2	Othe	r:
Annex :	Article: 10	Clause :		ı	
Key words : work positioning					
	e recommended if a guided for work positioning (suspe		ester including a fle	xible	anchor line is
Solution:					
	the product has to fulfill the when the line is under tension				
Instructions for use shall	ll include the requirement to	provide a b	pack-up in use		
Note: Regarding the inc anchor line see CNB/P/	correct attachment and use of 11.042.	of a guided	type fall arrester ind	cludii	ng a flexible
Sent for information to: (3):	members of the VG	·	2)	6C (4)	other (5)



CNB/P/11.081 Revision 01 Language: E

Number of pages : 1	Date : 12/10/2011	A	approval by :		Approved on :
Origin : VG11, Protection again	nst falls from a height		☑ Vertical Group		12/10/2011
			Horizontal Committee		08/10/2012
			Standing Committee		12/03/2013
Question related to : Directive	89/686/EC	EN/prEN : El	N 353-2, EN 364	Other	
Annex:	Article: 10	Clause :		I	
Key words : guided type fall ar	rester, dynamic performance, non inte	gral energy ab	osorber		
Question :					
How to assess the dynan	nic performance of a EN 353-2	device that	includes a non integra	l ener	gy absorber?
Solution:					
EN 353-2 device shall be	tested in accordance with EN	364 5.5.2 or	5.8.2, with each energ	gy abs	sorber specified by
the manufacturer in its in	struction for use.				
Sent for information to:	members of the VG	/G ⊠ HC	(2) X TC (3) X S	C (4)	other (5)
(3):			(5):	` '	, ,



CNB/P/11.082 Revision 01 Language: E

Number of pages : 1	Date : 12/10/2011		Аррі	roval by :		Approved on :
Origin: VG11, Protection agains	t falls from a height		☑ Vertical Group			12/10/2011
				Horizontal Committee		08/10/2012
				Standing Committee		12/03/2013
Question related to : Directive 8	9/686/EC	EN/prEN :	EN 3	53-2, EN 364	Othe	
Annex:	Article : 10	Clause :			l	
Key words : guided type fall arre	ster, dynamic performance, eyebolt					
Question :						
Which eyebolt has to be us	sed to carry out dynamic perfo	ormance te	st o	n EN 353-2?		
Solution:						
The offset eyebolt shall be	used, as defined in EN 364 (a	articles 4.5	and	d 5.5 and in figure 2).	
Sent for information to:	nembers of the VG	∕G ⊠ H	C (2)		C (4)	other (5)
(3):			(5)	:		



CNB/P/11.083 Revision 02 Language: E

Number of pages : 1	Date : 17/10/2012	A	pproval by :		Approved on :
Origin: VG11, Protection agains	st falls from a height		Vertical Group Horizontal Committee Standing Committee		17/10/2012 17/06/2013 19/09/2015
Question related to : Directive 8	39/686/EC	EN/prEN : EI	N 355	Other	:
Annex :	Article: 10	Clause :			
Key words : samples, test orde	r				
Question : Which sample shall be o	used to carry out the dynam	ic perform	ance on EN 355:200)2?	
Solution:					
	ce test shall be carried out				
Sent for information to:	nembers of the VG		(2)	SC (4)	other (5)



CNB/P/11.084 Revision 01 Language: E

Number of pages : 1	Date : 12/10/2011	A	approval by :		Approved on :
Origin: VG11, Protection against	st falls from a height		Vertical Group		12/10/2011
			Horizontal Committee		08/10/2012
			Standing Committee		12/03/2013
Question related to : Directive 8	39/686/EC	EN/prEN : El	N 360, EN 364	Othe	r:
Annex :	Article: 10	Clause : 5.1.	2.3 (EN 360), 5.11.6.2 (EN	364)	
Key words : Retractable type fa	Il arrester, locking test				
Question : Which level of load increasing is	s required by carry out the locking tes	t in accordanc	ee with 5.11.6.2 of EN 364:1	1992?	
Solution:					
The minimum mass shall be 5kg 30kg.	g but this can be increased by 1kg inc	crements to the	at mass which operates the	devic	e up to a maximum of
The test mass can be a rigid ste	el mass or a sand bag.				
Sent for information to:	members of the VG	G ⊠ HC	(2) X TC (3) X S	C (4)	other (5)



CNB/P/11.085 Revision 02 Language: E

Number of pages : 1	Date : 17/10/2012		Approval by :		Approved on :	
Origin : VG11, Protection against falls from a height			 ✓ Vertical Group ✓ Horizontal Committee ✓ Standing Committee 		17/10/2012 17/06/2013 19/09/2015	
Question related to : Directive 8	9/686/EC	EN/prEN :	EN 360:2002	Othe	r:	
Annex:	Article : 10	Clause :				
Key words : retractable fall arre	ster, fall factor, locking feature					
	fall arresters (EN 360 type) inc aiming the possibility to go abo			e whic	ch allow a fall	
Solution:						
EN 360 cannot be used 'al tension)	one' for assessment (as EN 3	60's use r	equires to stay below the	e dev	rice and under	
EN 360 cannot be used 'alone' for assessment (as EN 360's use requires to stay below the device and under tension) CE certificate can be awarded using EN 360 and following additional requirement: 1- Design requirement: the total length shall be limited to 2m 2- Dynamic performance test (with locked retraction feature if applicable), the maximum extracted length and a fall factor 2 Requirement: F<6kN and H<2L+1,75m 3- Dynamic performance test (with locked retraction feature if applicable), half the maximum extracted length and fall factor 2 (to test the locking mechanism) Requirement: F<6kN and H <l+1,75m (a="" (clearance="" -="" 22kn="" 3="" 4-="" 5-="" 6-="" according="" and="" applicant)="" appropriate="" be="" below="" by="" can="" edge="" for="" instructions="" lanyard="" marking="" minutes="" on="" only="" optional:="" sheet="" specimen="" static="" strength="" submitted="" td="" test="" the="" to="" use="" user,)<="" vg11="" webbing=""></l+1,75m>						
Sent for information to:	nembers of the VG	′G ⊠ H	C (2)	U (4)	other (5)	



CNB/P/11.086 Revision 01 Language: E

Number of pages : 1	**					
Question related to: Directive 89/686/EC	Number of pages : 1	Date : 12/10/2011	1	Approval by :	Approved on :	
Question related to: Directive 89/686/EC	Origin: VG11, Protection again	Origin : VG11, Protection against falls from a height				
Question related to: Directive 89/686/EC						
Annex: Article: 10 Clause: art. 4.2 – para 3 Key words: termination, connector Question: In the EN 360:2002, article 4.2, paragraph 3 "The external end of the retractable lanyard shall be suitably terminated", what constitutes a "suitable" termination? Solution: The termination shall be deemed "suitable", if either it incorporates a connector complying with EN 362, or, is of such design that an EN 362 connector can be fitted to the termination, without the need for any modification to the termination.				Standing Committee	12/03/2013	
Cuestion: In the EN 360:2002, article 4.2, paragraph 3 "The external end of the retractable lanyard shall be suitably terminated", what constitutes a "suitable" termination? Solution: The termination shall be deemed "suitable", if either it incorporates a connector complying with EN 362, or, is of such design that an EN 362 connector can be fitted to the termination, without the need for any modification to the termination.	Question related to : Directive	89/686/EC	EN/prEN : E	EN 360	Other:	
Question: In the EN 360:2002, article 4.2, paragraph 3 "The external end of the retractable lanyard shall be suitably terminated", what constitutes a "suitable" termination? Solution: The termination shall be deemed "suitable", if either it incorporates a connector complying with EN 362, or, is of such design that an EN 362 connector can be fitted to the termination, without the need for any modification to the termination.	Annex:	Article: 10	Clause : art.	. 4.2 – para 3		
In the EN 360:2002, article 4.2, paragraph 3 "The external end of the retractable lanyard shall be suitably terminated", what constitutes a "suitable" termination? Solution: The termination shall be deemed "suitable", if either it incorporates a connector complying with EN 362, or, is of such design that an EN 362 connector can be fitted to the termination, without the need for any modification to the termination. Sent for information to: members of the VG other(s) VG HC(2) TC(3) SC(4) other(5)	Key words : termination, conne	ctor				
The termination shall be deemed "suitable", if either it incorporates a connector complying with EN 362, or, is of such design that an EN 362 connector can be fitted to the termination, without the need for any modification to the termination. Sent for information to: members of the VG other(s) VG HC (2) TC (3) SC (4) other (5)	In the EN 360:2002, art				anyard shall be	
or, is of such design that an EN 362 connector can be fitted to the termination, without the need for any modification to the termination. Sent for information to: members of the VG other(s) VG HC (2) TC (3) SC (4) other (5)	Solution:					
	or, is of such design that	at an EN 362 connector can				
			10 1	(a) N T (a) N T		
	_	members of the VG	′G ⊠ HC		GU (4)	



CNB/P/11.088 Revision 01 Language: E

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Number of pages : 1	Date : 12/10/2011		App	roval by :		Approved on :
Origin: VG11, Protection again	nst falls from a height		\boxtimes	Vertical Group		12/10/2011
			\boxtimes	Horizontal Committee		08/10/2012
			\boxtimes	Standing Committee		12/03/2013
Question related to : Directive	89/686/EC	EN/prEN:	EN 7	795+A1	Othe	er:
Annex:	Article: 10	Clause :				
Key words : Rope / Knots t	ied by end user					
Question :						
therefore rely on subsequently However if an anchor dev	ms require a certain element of lent training by the end user. rice or fall arrester relies on a ki product is this something that o	not that ha	as to	be tied (or dressed		, ,
Solution:						
No, these devices are no	t suitable to be certified as they	rely on te	chni	iques		
Cont for information to	members of the VO	<u>гс М</u>	C (0)	M TO (2) M C	·C (4)	Other (E)
	members of the VG other(s) V	′G ⊠ H			o (4)	other (5)
(3):			(5)			



CNB/P/11.089 Revision 01 Language: E

*			
Number of pages : 1	Date : 12/10/2011	Approval by :	Approved on :
Origin: VG11, Protection ag	Origin : VG11, Protection against falls from a height		
Question related to : Directi	ve 89/686/EC	EN/prEN : EN 361, EN 364	Other:
Annex:	Article : 10, 11A	Clause: 4.3 / 5.1.4	
Key words : harness, static	strength		
	use 5.1.4, static strength is requand the lower ring of the torso		
	and the upper ring of the torso		
Can a new sample or out consecutively on	f EN 361 harness be used for the same sample?	each of these tests, or should	both tests be carried
Solution:			
Each test may be car (see TC160/WG2 doc N4	rried out on a new sample of E 77 12/01/11)	N 361 harness	
_	✓ members of the VG	FG NC (2) NC (3) NC (5):	SC (4)



CNB/P/11.090 Revision 01 Language: E

Number of pages : 1	Date : 12/10/11	Α	pproval by :	Approved on :
Origin: VG11, Protection	against falls from a height		Vertical Group	12/10/2011
		<u> </u>	Horizontal Committee.	08/10/2012
			Standing Committee	12/03/2013
Question related to : Dire	ective 89/686/EC	EN/prEN : EN	N 362	Other:
Annex :	Article : 10	Clause :		
Key words: EN 362, lato	h distance from connector body			
Question :				
	62 standard says that "the ing from the latch by more			
	e part of the latch of less that distance of the latch teeth ().		•	
	1 mm			
Picture 1:	distance to consider	Picture	2: distance not to b	e considered
Sent for information to:	members of the VG otl	her(s) VG 🔀 HC	(2) X TC (3) X (5):	SC (4)



CNB/P/11.092
Revision 01
Language: E

Number of pages : 1	Date : 12/10/2011	Approval by :	Approved on :						
Origin: VG11, Protection against falls from a height		☑ Vertical Group							
		☐ Horizontal Committee							
		Standing Committee.	12/03/2013						
Question related to : Directive 89/686/EC		EN/prEN : EN 361, EN 12277	prEN : EN 361, EN 12277 Other :						
Annex:	Article: 10, 11A	Clause :							
Key words: harness, sizes, torso dummy									
Question :									
How shall be tested harnesses (like full body harnesses EN 361 or mountaineering harnesses EN 12277) with different sizes of the same design?									
Solution:									
The Notified Body shall test the size which fits the torso dummy									
(tape, buckles, thread influence on the safety If a harness exists onl	of all sizes of a range is act s,) same sewing, same ding of the harness can differ (not y on one size that does not f with a size which fits the torso	mensions (except tape length mber or size of gear loops, p it the torso dummy, the applic	n). Components with no ad size).						
Sent for information to: (3):	_ ()	G	SC (4)						



CNB/P/11.094 Revision 02 Language: E

Number of pages : 1	Date : 27/02/2013		Approval by :		Approved on :				
Origin : VG11, Protection against falls from a height			□ Vertical Group □ Horizontal Committee □ Standing Committee		27/02/2013 17/06/2013 19/09/2015				
Question related to : Directive 89/686/EC		EN/prEN : EN 358 :1999 EN 354 :2010 Other :							
Annex:	Article : 10	Clause :							
Key words: pole choker, work positioning lanyard									
Question :									
How should pole chokers (*) be assessed?									
Solution:									
Pole chokers have to be assessed as work positioning lanyard according to EN 358 or EN 354.									
Dynamic resistance tests shall be carried out using a representative pole (at least minimum and maximum diameter)									
Instructions for use shall require that the user needs a back-up system when using the pole choker devices									
(*) Pole choker: double adjustable webbing lanyard designed to be used for climbing on wooden poles Example of Pole Choker: Sent for information to: members of the VG other(s) VG HC (2) TC (3) SC (4) other (5)									
Sent for information to:	nembers of the VG	′G ⊠ H	C (2)	C (4)	other (5)				