









CE REPORT

Related to CE Directive: 2016/425/EU Personal Protective Equipment	
Prepared For:	Fuzhoucity Gulouarea Tuohui Trade Co.,Ltd Shuibujiedao Wuyibeilu129hao Rongchengshangmaozhongxin 13ceng03shi -3 Fujiansheng Gulouqu Fuzhoushi 350000 CN
Manufacturer:	Fuzhoucity Gulouarea Tuohui Trade Co.,Ltd Shuibujiedao Wuyibeilu129hao Rongchengshangmaozhongxin 13ceng03shi -3 Fujiansheng Gulouqu Fuzhoushi 350000 CN
Product Name:	Safety shoes
Main Model:	1335
Additional Model:	/
Trade Mark:	/
Standards Compliance:	EN ISO 20345:2011 Personal protective equipment — Safety footwear
Prepared By :	UAC Quality Technology Service Limited 13 / F, Cheung Kee Building, 84-86 des Voeux Road Central, Hong Kong
Test Date:	2021.12.01 To 2021.12.17
Date of Report :	2021.12.17
Report No.:	TCF21TUH121709PPE

APPLIED STANDRD(S)	
EN ISO 20345:2011 Personal protective equipment — Safety footwear	
ACOUSTIC OF ENVIRONMENT	
Description of the test environment : Indoors Air temperature : 23±5 °C Barometric pressure : approximate 1.1×105Pa Relative humidity : 58%~75%R.H.	
SAMPLE INFORMATION	
Test Item description:	Safety shoes
Test model:	1335
Model reference:	/
Trade Mark:	/
Manufacturer:	Same as applicant
Design:	Design A (Low shoes)
Test size of footwear:	41 and 42 (France) 7 to 8 (UK)
Reference size of footwear	36-48(France)
Classification	Class I
Category:	SBP
Copy of Marking Plate:	
Safety shoes	
1335	
/	
	2031-12
	Fuzhoucity Gulouarea Tuohui Trade Co.,Ltd Shuibujiedao Wuyibeilu129hao Rongchengshangm aozhongxin 13ceng03shi-3 Fujiansheng Gulouqu F uzhoushi 350000 CN 2021-12
	UE Fast Refund GmbH Friedrich-Alfred-Straße 184 Duisburg 47226 Deutsc hland
Made in China	
  	

POSSIBLE TEST CASE VERDICTS:	
test case does not apply to the test object.:	N/A
test object does meet the requirement :	P (Pass)
test object does not meet the requirement :	F (Fail)
Date of receipt of test item:	2021.12.01
Date (s) of performance of tests.:	2021.12.01To 2021.12.17
GENERAL REMARKS:	
<p>"(See Enclosure #)" refers to additional information appended to the report.</p> <p>"(See appended table)" refers to a table appended to the report.</p> <p>Throughout this report <input checked="" type="checkbox"/> a comma / <input checked="" type="checkbox"/> point is used as the decimal separator.</p>	
<p>The application for obtaining a CE Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided :</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies):	Same as manufacturer
GENERAL PRODUCT INFORMATION AND OTHER REMARS	
<p>Product Description</p> <p>1. Instructions and equipment marking related to safety is applied in the language that is acceptable in the country in which the equipment is to be sold.</p> <p>2.The product was submitted and tested for use at the manufacturer's recommended ambient temperature (Tma) of 45°C.</p> <p>3. All models are the same except for the model name. All tests were performed on 1335</p>	

Name and address of the testing laboratory : UAC Quality Technology Service Limited
13 / F, Cheung Kee Building, 84-86 des Voeux
Road Central, Hong Kong

Sgan

Test by:

Technician

2021.12.17

Date

Apple Li

Review by:

Project Engineer

2021.12.17

Date

Andy Liu

Approved by:

Andy/ Manager



2021.12.17

Date

Sample Photo:



DOC provided by manufacturer

EC Declaration of conformity

Fuzhoucity Gulouarea Tuohui Trade Co.,Ltd

Shuibujiedao Wuyibeilu129hao Rongchengshangmaozhongxin 13ceng03shi-3 Fujiansheng
Gulouqu Fuzhoushi 350000 CN

We declare that the following product :

Safety shoes

Model: 1335

Described above is in conformity with the following directive (s) :

2016/425/EU

Personal Protective Equipment

Relevant standard (s):

EN ISO 20345:2011

The reference of the File identified with the No:

TCF21TUH121709PPE

And we are aware about the contents and information included in the ModCOM04.06 Regulation that is considered totally accepted.

Date of issue

Stamp and Signature of authorized personnel

Test result:

EN ISO 20957-1&EN ISO 20957-8																																																																																																																																										
Clause	Requirement- Test		Result-Remark	Verdict																																																																																																																																						
4	Classification and designs		/	P																																																																																																																																						
	Footwear shall be classified in accordance with Table 1. Class II footwear can be equipped with another material which extends the upper. The requirements for this footwear are given in Annex A. <p style="text-align: center;">Table 1 — Classification of footwear</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Classification</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Class I</td> <td>Footwear made from leather and other materials, excluding all-rubber or all-polymeric footwear</td> </tr> <tr> <td>Class II</td> <td>All-rubber (i.e. entirely vulcanized) or all-polymeric (i.e. entirely moulded) footwear</td> </tr> </tbody> </table>		Classification	Description	Class I	Footwear made from leather and other materials, excluding all-rubber or all-polymeric footwear	Class II	All-rubber (i.e. entirely vulcanized) or all-polymeric (i.e. entirely moulded) footwear	Class I	P																																																																																																																																
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5.1	General Safety footwear shall conform to the basic requirements given in Table 2. <p style="text-align: center;">Table 2 — Basic requirements for safety footwear</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th rowspan="2">Requirement</th> <th rowspan="2">Subclause</th> <th colspan="2">Classification</th> </tr> <tr> <th>I</th> <th>II</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Design</td> <td>Height of upper</td> <td>5.2.2</td> <td>X</td> <td>X</td> </tr> <tr> <td>Seat region (design B, C, D, E)</td> <td>5.2.3</td> <td>X</td> <td>X</td> </tr> <tr> <td rowspan="14">Whole footwear</td> <td>Sole performance:</td> <td>5.3.1</td> <td></td> <td></td> </tr> <tr> <td>— Construction</td> <td>5.3.1.1</td> <td>X</td> <td></td> </tr> <tr> <td>— Upper/outsole bond strength</td> <td>5.3.1.2</td> <td>X</td> <td></td> </tr> <tr> <td>Toe protection:</td> <td>5.3.2</td> <td></td> <td></td> </tr> <tr> <td>— General</td> <td>5.3.2.1</td> <td>X</td> <td>X</td> </tr> <tr> <td>— Internal length of toecaps</td> <td>5.3.2.2</td> <td>X</td> <td>X</td> </tr> <tr> <td>— Impact resistance</td> <td>5.3.2.3</td> <td>X</td> <td>X</td> </tr> <tr> <td>— Compression resistance</td> <td>5.3.2.4</td> <td>X</td> <td>X</td> </tr> <tr> <td>— Behaviour of toecaps</td> <td>5.3.2.5</td> <td>X</td> <td>X</td> </tr> <tr> <td>Leakproofness</td> <td>5.3.3</td> <td></td> <td>X</td> </tr> <tr> <td>Specific ergonomic features</td> <td>5.3.4</td> <td>X</td> <td>X</td> </tr> <tr> <td>Slip resistance:</td> <td>5.3.5</td> <td>X</td> <td>X</td> </tr> <tr> <td>— Slip resistance on ceramic tile floor with NaLS^a</td> <td>5.3.5.2</td> <td></td> <td></td> </tr> <tr> <td>— Slip resistance on steel floor with glycerine^{ab}</td> <td>5.3.5.3</td> <td></td> <td></td> </tr> <tr> <td>— Slip resistance on ceramic tile floor with NaLS and on steel floor with glycerine^c</td> <td>5.3.5.4</td> <td></td> <td></td> </tr> <tr> <td rowspan="8">Upper</td> <td>General</td> <td>5.4.1</td> <td>X</td> <td></td> </tr> <tr> <td>Thickness</td> <td>5.4.2</td> <td></td> <td>X</td> </tr> <tr> <td>Tear strength</td> <td>5.4.3</td> <td>X</td> <td></td> </tr> <tr> <td>Tensile properties</td> <td>5.4.4</td> <td>X</td> <td>X</td> </tr> <tr> <td>Flexing resistance</td> <td>5.4.5</td> <td></td> <td>X</td> </tr> <tr> <td>Water vapour permeability and coefficient</td> <td>5.4.6</td> <td>X</td> <td></td> </tr> <tr> <td>pH value</td> <td>5.4.7</td> <td>X</td> <td></td> </tr> <tr> <td>Hydrolysis</td> <td>5.4.8</td> <td></td> <td>X</td> </tr> <tr> <td>Chromium VI content</td> <td>5.4.9</td> <td>X</td> <td></td> </tr> <tr> <td rowspan="5">Vamp lining</td> <td>Tear strength</td> <td>5.5.1</td> <td>X</td> <td>O</td> </tr> <tr> <td>Abrasion resistance</td> <td>5.5.2</td> <td>X</td> <td>O</td> </tr> <tr> <td>Water vapour permeability and coefficient</td> <td>5.5.3</td> <td>X</td> <td></td> </tr> <tr> <td>pH value</td> <td>5.5.4</td> <td>X</td> <td>O</td> </tr> <tr> <td>Chromium VI content</td> <td>5.5.5</td> <td>X</td> <td>O</td> </tr> </tbody> </table>		Requirement	Subclause	Classification		I	II	Design	Height of upper	5.2.2	X	X	Seat region (design B, C, D, E)	5.2.3	X	X	Whole footwear	Sole performance:	5.3.1			— Construction	5.3.1.1	X		— Upper/outsole bond strength	5.3.1.2	X		Toe protection:	5.3.2			— General	5.3.2.1	X	X	— Internal length of toecaps	5.3.2.2	X	X	— Impact resistance	5.3.2.3	X	X	— Compression resistance	5.3.2.4	X	X	— Behaviour of toecaps	5.3.2.5	X	X	Leakproofness	5.3.3		X	Specific ergonomic features	5.3.4	X	X	Slip resistance:	5.3.5	X	X	— Slip resistance on ceramic tile floor with NaLS ^a	5.3.5.2			— Slip resistance on steel floor with glycerine ^{ab}	5.3.5.3			— Slip resistance on ceramic tile floor with NaLS and on steel floor with glycerine ^c	5.3.5.4			Upper	General	5.4.1	X		Thickness	5.4.2		X	Tear strength	5.4.3	X		Tensile properties	5.4.4	X	X	Flexing resistance	5.4.5		X	Water vapour permeability and coefficient	5.4.6	X		pH value	5.4.7	X		Hydrolysis	5.4.8		X	Chromium VI content	5.4.9	X		Vamp lining	Tear strength	5.5.1	X	O	Abrasion resistance	5.5.2	X	O	Water vapour permeability and coefficient	5.5.3	X		pH value	5.5.4	X	O	Chromium VI content	5.5.5	X	O	Meet the requirements See items	P
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Table 2 (continued)

Requirement		Subclause	Classification	
			I	II
Quarter lining	Tear strength	5.5.1	O	O
	Abrasion resistance	5.5.2	O	O
	Water vapour permeability and coefficient	5.5.3	O	
	pH value	5.5.4	O	O
	Chromium VI content	5.5.5	O	O
Insole/insock		See Table 3	X	O
Tongue	Tear strength	5.6.1	O	
	pH value	5.6.2	O	
	Chromium VI content	5.6.3	O	
Outsole	Design	5.8.1	X	X
	Tear strength	5.8.2	X	X
	Abrasion resistance	5.8.3	X	X
	Flexing resistance	5.8.4	X	X
	Hydrolysis	5.8.5	X	X
	Interlayer bond strength	5.8.6	O	O

NOTE 1 The applicability of a requirement to a particular classification is indicated by X or O. X means the requirement shall be met. In some cases the requirement relates only to particular materials within the classification, e.g. pH value of leather components. This does not mean that other materials are precluded from use. O means that if the component part exists, the requirement shall be met. The absence of X or O indicates that there is no requirement.

NOTE 2 For class II footwear, it is usual to have no insole present. However, if a removable insock is used, Table 3 is not applicable; only chromium VI and pH requirements are fulfilled for leather material.

NOTE 3 Stockings covering the last before the moulding process are not considered a lining.

^a One of the three slip resistance requirements shall be met.

^a Marking symbol "SRA".

^b Marking symbol "SRB".

^c Marking symbol "SRC".

Table 3 — Basic requirements for insoles and/or insocks

Options		Component to be assessed	Requirements to fulfil					
			Thickness	pH ^a	Water absorption/desorption	Insole abrasion	Chromium VI ^a	Insock abrasion
			5.7.1	5.7.2	5.7.3	5.7.4.1	5.7.5	5.7.4.2
No insole or, if present, not fulfilling the requirements	Non-removable insock	Insock	X	X	X		X	X
	No insole Seat sock present	Insole	X	X	X	X	X	
Insole present	Full insock, non-removable	Insock and insole together	X		X			
		Insock		X			X	X
	Full insock, removable and water permeable ^b	Insole	X	X	X	X	X	
		Insock		X			X	X
	Full insock, removable, not water permeable ^b	Insole	X	X	X	X	X	
	Insock		X	X		X	X	

NOTE 1 X denotes that the requirement shall be met.

NOTE 2 For removable insocks, see 8.3.

^a Applies only to leather.

^b A water-permeable insock is one that, when tested in accordance with ISO 20344:2011, 7.2, lets water through in 60 s or less.

5.2	Design	/	P
5.2.1	General Footwear shall conform to one of the designs given in Figure 3.	Design A	P
5.2.2	Height of upper The height of the upper, when measured in accordance with ISO 20344:2011, 6.2, shall be as given in Table 4.	Size of footwear: 41 and 42 (France) Height;103mm	P

		Table 4 — Height of upper							
		Size of footwear		Height					
		France	UK	Design A mm	Design B min. mm	Design C min. mm	Design D and E min. mm		
		36 and below	up to 31/2	<103	103	162	255		
		37 and 38	4 to 5	<105	105	165	260		
		39 and 40	5 1/2 to 6 1/2	<109	109	172	270		
		41 and 42	7 to 8	<113	113	178	280		
		43 and 44	8 1/2 to 10	<117	117	185	290		
		45 and above	10 1/2 and above	<121	121	192	300		
5.2.3	Seat region The seat region shall be closed. In this area of the upper, below the minimum height given for design A in Table 10, there shall be no holes other than to form seams.							The seat region closed No holes	P
5.3	Whole footwear							/	P
5.3.1	Sole performance							/	P
5.3.1.1	Construction When an insole is used, it shall not be possible to remove it without damaging the footwear. If there is no insole, a permanently attached insock shall be present.							Insole can't remove without damaging	P
5.3.1.2	Upper/outsole bond strength When footwear other than with a stitched sole is tested in accordance with the method described in ISO 20344:2011, 5.2, the bond strength shall be not less than 4,0 N/mm, unless there is tearing of the sole, in which case the bond strength shall be not less than 3,0 N/mm.							Bond strength:4.2N/mm	P
5.3.2	Toe protection							/	P
5.3.2.1	General Toecaps shall be incorporated in the footwear in such a manner that they cannot be removed without damaging the footwear. With the exception of all-rubber and all-polymeric footwear, footwear fitted with internal toecaps shall have a vamp lining or an element of the upper that serves as a lining. In addition, the toecaps shall have an edge covering extending from the back edge of the toecap to at least 5 mm beneath it and at least 10 mm in the opposite direction. Toecaps shall fulfil the requirements given in EN 12568:2010, 4.2.2.2. Scuff-resistant coverings for the toe region shall be not less than 1 mm in thickness.							Meet the requirements Scuff-resistant covering thickness:1.5mm	P
5.3.2.2	Internal length of toecaps When measured in accordance with the method described in ISO 20344:2011, 5.3, the internal toecap length shall be in accordance with Table 5.							Minimum internal length: 40mm	P
		Table 5 — Minimum internal length of toecaps							
		Size of footwear		Minimum internal length					
		France	UK	mm					
		36 and below	Up to 31/2	34					
		37 and 38	4 to 5	36					
		39 and 40	5 1/2 to 6 1/2	38					
		41 and 42	7 to 8	39					
		43 and 44	8 1/2 to 10	40					
		45 and above	10 1/2 and above	42					

5.3.2.3	<p>Impact resistance of safety footwear</p> <p>When safety footwear is tested in accordance with the method described in ISO 20344:2011, 5.4, at an impact energy of (200 ± 4) J, the clearance under the toecap at the moment of impact shall be in accordance with Table 6. In addition, the toecap shall not develop any cracks which go through the material, i.e. through which light can be seen.</p> <p style="text-align: center;">Table 6 — Minimum clearance under toecaps at impact</p> <table border="1" data-bbox="252 488 1037 712"> <thead> <tr> <th colspan="2">Size of footwear</th> <th rowspan="2">Minimum clearance mm</th> </tr> <tr> <th>France</th> <th>UK</th> </tr> </thead> <tbody> <tr> <td>36 and below</td> <td>Up to 31/2</td> <td>12,5</td> </tr> <tr> <td>37 and 38</td> <td>4 to 5</td> <td>13,0</td> </tr> <tr> <td>39 and 40</td> <td>5 1/2 to 6 1/2</td> <td>13,5</td> </tr> <tr> <td>41 and 42</td> <td>7 to 8</td> <td>14,0</td> </tr> <tr> <td>43 and 44</td> <td>8 1/2 to 10</td> <td>14,5</td> </tr> <tr> <td>45 and above</td> <td>10 1/2 and above</td> <td>15,0</td> </tr> </tbody> </table>	Size of footwear		Minimum clearance mm	France	UK	36 and below	Up to 31/2	12,5	37 and 38	4 to 5	13,0	39 and 40	5 1/2 to 6 1/2	13,5	41 and 42	7 to 8	14,0	43 and 44	8 1/2 to 10	14,5	45 and above	10 1/2 and above	15,0	<p>Minimum clearance:12.3mm No crack go through the material</p>	P
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5.3.2.4	<p>Compression resistance of safety footwear</p> <p>When safety footwear is tested in accordance with ISO 20344:2011, 5.5, the clearance under the toecap at a compression load of $15 \text{ kN} \pm 0,1 \text{ kN}$ shall be in accordance with Table 6.</p>	<p>Minimum clearance:12.8mm</p>	P																							
5.3.2.5	Behaviour of toecaps	/	P																							
5.3.2.5.1	<p>Corrosion resistance of metallic toecaps</p> <p>When class II footwear is tested and assessed in accordance with ISO 20344:2011, 5.6.2, the metallic toecap shall exhibit no more than three areas of corrosion, none of which shall measure more than 2 mm in any direction. When metallic toecaps are used in class I footwear, they shall be tested and assessed in accordance with ISO 20344:2011, 5.6.2, and they shall exhibit not more than three areas of corrosion, none of which shall measure more than 2 mm in any direction.</p>	No areas of corrosion	P																							
5.3.2.5.2	<p>Non-metallic toecaps</p> <p>Non-metallic toecaps used in safety footwear shall conform to the requirements of EN 12568.</p>	/	N/A																							
5.3.3	<p>Leakproofness</p> <p>When tested in accordance with ISO 20344:2011, 5.7, there shall be no leakage of air. For class II footwear without a closed seat region, the requirement is not applicable.</p>	/	N/A																							
5.3.4	<p>Specific ergonomic features</p> <p>The footwear shall be considered to satisfy the ergonomic requirements if the questionnaire given in ISO 20344:2011, 5.1 is completed and all answers are positive. If the footwear is rigid in accordance with ISO 20344:2011, 8.4.1, then question 4.3 of Table 2 in ISO 20344:2011 is not applicable.</p>	See annex 1	P																							
5.3.5	Slip resistance requirement	/	P																							
5.3.5.1	<p>General</p> <p>When tested in accordance with ISO 20344:2011, 5.11, safety footwear shall conform to 5.3.5.2, 5.3.5.3 or 5.3.5.4.</p>	/	P																							

	The requirements are applicable to conventionally soled footwear. They are not applicable to special- purpose footwear containing spikes, metal studs or similar, nor to special-purpose safety footwear to be used on soft ground (sand, sludge, etc.).												
5.3.5.2	Slip resistance on ceramic tile floor with sodium lauryl sulphate (NaLS) solution Footwear resistant to slip on a ceramic tile floor with NaLS shall fulfil the requirements of Table 7. Table 7 — Requirements for footwear resistant to slip on ceramic tile floor with NaLS	Condition A:0.32 Condition B:0.48	P										
	<table border="1"> <thead> <tr> <th>Test conditions of ISO 20344:2011, 5.11.1</th> <th>Coefficient of friction</th> </tr> </thead> <tbody> <tr> <td>Condition A (forward heel slip)</td> <td>≥0,28</td> </tr> <tr> <td>Condition B (forward flat slip)</td> <td>≥0,32</td> </tr> </tbody> </table>	Test conditions of ISO 20344:2011, 5.11.1	Coefficient of friction	Condition A (forward heel slip)	≥0,28	Condition B (forward flat slip)	≥0,32						
Test conditions of ISO 20344:2011, 5.11.1	Coefficient of friction												
Condition A (forward heel slip)	≥0,28												
Condition B (forward flat slip)	≥0,32												
5.3.5.3	Slip resistance on steel floor with glycerine Footwear resistant to slip on a steel floor with glycerine shall fulfil the requirements of Table 8. Table 8 — Requirements for footwear resistant to slip on steel floor with glycerine	Condition C:0.15 Condition D:0.21	P										
	<table border="1"> <thead> <tr> <th>Test conditions of ISO 20344:2011, 5.11.1</th> <th>Coefficient of friction</th> </tr> </thead> <tbody> <tr> <td>Condition C (forward heel slip)</td> <td>≥0,13</td> </tr> <tr> <td>Condition D (forward flat slip)</td> <td>≥0,18</td> </tr> </tbody> </table>	Test conditions of ISO 20344:2011, 5.11.1	Coefficient of friction	Condition C (forward heel slip)	≥0,13	Condition D (forward flat slip)	≥0,18						
Test conditions of ISO 20344:2011, 5.11.1	Coefficient of friction												
Condition C (forward heel slip)	≥0,13												
Condition D (forward flat slip)	≥0,18												
5.3.5.4	Slip resistance on ceramic tile floor with NaLS and on steel floor with glycerine Footwear resistant to slip on a ceramic tile floor with NaLS and on a steel floor with glycerine shall fulfil the requirements of Table 9. Table 9 — Requirements for footwear resistant to slip on ceramic tile floor with NaLS and on steel floor with glycerine	Condition A:0.33 Condition B:0.47 Condition C:0.16 Condition D:0.23	P										
	<table border="1"> <thead> <tr> <th>Test conditions of ISO 20344:2011, 5.11.1</th> <th>Coefficient of friction</th> </tr> </thead> <tbody> <tr> <td>Condition A (forward heel slip)</td> <td>≥0,28</td> </tr> <tr> <td>Condition B (forward flat slip)</td> <td>≥0,32</td> </tr> <tr> <td>Condition C (forward heel slip)</td> <td>≥0,13</td> </tr> <tr> <td>Condition D (forward flat slip)</td> <td>≥0,18</td> </tr> </tbody> </table>	Test conditions of ISO 20344:2011, 5.11.1	Coefficient of friction	Condition A (forward heel slip)	≥0,28	Condition B (forward flat slip)	≥0,32	Condition C (forward heel slip)	≥0,13	Condition D (forward flat slip)	≥0,18		
Test conditions of ISO 20344:2011, 5.11.1	Coefficient of friction												
Condition A (forward heel slip)	≥0,28												
Condition B (forward flat slip)	≥0,32												
Condition C (forward heel slip)	≥0,13												
Condition D (forward flat slip)	≥0,18												
5.3.6	Innocuousness Safety footwear shall not adversely affect the health or hygiene of the user. Safety footwear shall be made of materials such as textiles, leather, rubbers or plastics that have been shown to be chemically suitable. The materials shall not, in the foreseeable conditions of normal use, release or degrade to release substances generally known to be toxic, carcinogenic, mutagenic, allergenic, toxic to reproduction or otherwise harmful. Information claiming that the product is innocuous shall be checked.	Meet the requirements according to the material documents provided by the manufacturer	P										
5.4	Upper	/	N/A										
5.4.1	General The area which shall fulfil the requirements given in this subclause shall have a minimum height in accordance with Table 10, when measured from the horizontal surface beneath the sole.	/	/										

		Table 10 — Minimum heights, below which the requirements for the upper shall be fulfilled																											
		Size of footwear		Design minimum heights mm																									
		France	UK	A	B	C	D and E																						
		36 and below	Up to 31/2	44	64	113	172																						
		37 and 38	4 to 5	46	66	115	175																						
		39 and 40	5 1/2 to 6 1/2	48	68	119	182																						
		41 and 42	7 to 8	50	70	123	188																						
		43 and 44	8 1/2 to 10	52	72	127	195																						
		45 and above	10 1/2 and above	53	73	131	202																						
		When collar and insert materials are present above the heights given in Table 10, such materials shall meet the tear strength (see 5.5.1) and abrasion resistance (see 5.5.2) requirements for lining. In the case of leather materials, they shall also meet the requirements for pH value (see 5.4.7) and for chromium VI content (see 5.4.9). Materials above the heights given in Table 10 that are not collar and insert shall fulfil the requirements for the upper.																											
5.4.2	Thickness When determined in accordance with ISO 20344:2011, 6.1, the thickness of the upper of class II footwear at any point shall be in accordance with Table 11.	<p style="text-align: center;">Table 11 — Minimum thickness of upper</p> <table border="1"> <thead> <tr> <th>Type of material</th> <th>Minimum thickness mm</th> </tr> </thead> <tbody> <tr> <td>Rubber</td> <td>1,50</td> </tr> <tr> <td>Polymeric</td> <td>1,00</td> </tr> </tbody> </table>						Type of material	Minimum thickness mm	Rubber	1,50	Polymeric	1,00	/	/														
Type of material	Minimum thickness mm																												
Rubber	1,50																												
Polymeric	1,00																												
5.4.3	Tear strength When determined in accordance with ISO 20344:2011, 6.3, the tear strength of the upper of class I footwear shall be in accordance with Table 12.	<p style="text-align: center;">Table 12 — Minimum tear strength of upper</p> <table border="1"> <thead> <tr> <th>Type of material</th> <th>Minimum force N</th> </tr> </thead> <tbody> <tr> <td>Leather</td> <td>120</td> </tr> <tr> <td>Coated fabric and textile</td> <td>60</td> </tr> </tbody> </table>						Type of material	Minimum force N	Leather	120	Coated fabric and textile	60	/	/														
Type of material	Minimum force N																												
Leather	120																												
Coated fabric and textile	60																												
5.4.4	Tensile properties When determined in accordance with ISO 20344:2011, 6.4.1, the tensile properties shall be in accordance with Table 13.	<p style="text-align: center;">Table 13 — Tensile properties</p> <table border="1"> <thead> <tr> <th>Type of material</th> <th>Tensile strength N/mm</th> <th>Breaking force N</th> <th>Modulus at 100 % elongation N/mm²</th> <th>Elongation at break %</th> </tr> </thead> <tbody> <tr> <td>Leather split</td> <td>≥15</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>Rubber</td> <td>—</td> <td>≥180</td> <td>—</td> <td>—</td> </tr> <tr> <td>Polymeric</td> <td>—</td> <td>—</td> <td>1,3 to 4,6</td> <td>≥250</td> </tr> </tbody> </table>						Type of material	Tensile strength N/mm	Breaking force N	Modulus at 100 % elongation N/mm ²	Elongation at break %	Leather split	≥15	—	—	—	Rubber	—	≥180	—	—	Polymeric	—	—	1,3 to 4,6	≥250	/	/
Type of material	Tensile strength N/mm	Breaking force N	Modulus at 100 % elongation N/mm ²	Elongation at break %																									
Leather split	≥15	—	—	—																									
Rubber	—	≥180	—	—																									
Polymeric	—	—	1,3 to 4,6	≥250																									
5.4.5	Flexing resistance When tested in accordance with ISO 20344:2011, 6.5, the flexing resistance shall be in accordance with Table 14.							/	/																				

		Table 14 — Flexing resistance			
		Type of material	Flexing resistance		
		Rubber	No cracking before 125 000 flex cycles		
		Polymeric	No cracking before 150 000 flex cycles		
5.4.6	Water vapour permeability and coefficient When tested in accordance with 6.6 and 6.8 of ISO 20344:2011, the water vapour permeability shall be not less than 0,8 mg/(cm ² áh) and the water vapour coefficient shall be not less than 15 mg/cm ² .			/	/
5.4.7	pH value When leather uppers are tested in accordance with ISO 20344:2011, 6.9, the pH value shall be not less than 3,2. If the pH value is below 4, the difference figure shall be less than 0,7.			/	/
5.4.8	Hydrolysis When polyurethane uppers are tested in accordance with ISO 20344:2011, 6.10, no cracking shall occur before 150 000 flex cycles.			/	/
5.4.9	Chromium VI content When determined in accordance with the test method described in ISO 17075, the quantity of chromium VI in footwear containing leather shall not exceed 3,0 mg/kg.			/	/
5.5	Vamp and quarter lining			/	P
5.5.1	Tear strength When determined in accordance with ISO 20344:2011, 6.3, the tear strength of the lining shall be in accordance with Table 15. Table 15 — Minimum tear strength of lining			Minimum force:18N	P
		Type of material	Minimum force N		
		Leather	30		
		Coated fabric and textiles	15		
5.5.2	Abrasion resistance When tested in accordance with ISO 20344:2011, 6.12, the lining shall not develop any holes before the following number of cycles has been performed. - For vamp and quarter lining: - 25 600 cycles when dry; - 12 800 cycles when wet. - For seat region lining: - 51 200 cycles when dry; - 25 600 cycles when wet.			See annex 2	P
5.5.3	Water vapour permeability and coefficient When tested in accordance with 6.6 and 6.8 of ISO 20344:2011, the water vapour permeability shall be not less than 2,0 mg/(cm ² .h)			Water vapour permeability:2.5mg/(cm ² .h)	P

	and the water vapour coefficient shall be not less than 20 mg/cm ² .	Water vapour coefficient:22mg/cm ²							
5.5.4	pH value When leather linings are tested in accordance with ISO 20344:2011, 6.9, the pH value shall be not less than 3,2. If the pH value is below 4, the difference figure shall be less than 0,7.	/	N/A						
5.5.5	Chromium VI content When determined in accordance with the test method described in ISO 17075, the quantity of chromium VI in footwear containing leather shall not exceed 3,0 mg/kg.	/	N/A						
5.6	Tongue NOTE The tongue need only be tested if the material from which it is made or its thickness, or both, differs from that of the upper material.	/	N/A						
5.6.1	Tear strength When determined in accordance with ISO 20344:2011, 6.3, the tear strength of the tongue shall be in accordance with Table 16. Table 16 — Minimum tear strength of tongue <table border="1" data-bbox="279 952 970 1108"> <thead> <tr> <th>Type of material</th> <th>Minimum force N</th> </tr> </thead> <tbody> <tr> <td>Leather</td> <td>36</td> </tr> <tr> <td>Coated fabric and textiles</td> <td>18</td> </tr> </tbody> </table>	Type of material	Minimum force N	Leather	36	Coated fabric and textiles	18	tear strength: 22N	N/A
Type of material	Minimum force N								
Leather	36								
Coated fabric and textiles	18								
5.6.2	pH value When leather tongues are tested in accordance with ISO 20344:2011, 6.9, the pH value shall be not less than 3,2. If the pH value is below 4, the difference figure shall be less than 0,7.	/	N/A						
5.6.3	Chromium VI content When determined in accordance with the test method described in ISO 17075, the quantity of chromium VI in footwear containing leather shall not exceed 3,0 mg/kg.	/	N/A						
5.7	Insole and insock	/	P						
5.7.1	Thickness When determined in accordance with ISO 20344:2011, 7.1, the thickness of the insole and/or insock (see Table 3) shall be not less than 2,0 mm.	Thickness:2.8mm	P						
5.7.2	pH value When leather insoles or leather insocks are tested in accordance with ISO 20344:2011, 6.9, the pH value shall be not less than 3,2. If the pH is below 4, the difference figure shall be less than 0,7.	/	N/A						
5.7.3	Water absorption and desorption When tested in accordance with ISO 20344:2011, 7.2, the water absorption shall be not less than 70 mg/cm ² and the water desorption shall be not less than 80% of the water absorbed.	Water absorption:85mg/cm ² water desorption:83%	P						

5.7.4	Abrasion resistance	See annex 2	P													
5.7.4.1	Insoles When non-leather insoles are tested in accordance with ISO 20344:2011, 7.3, the abrasion damage shall not be more severe than that illustrated by the reference test pieces for the same family of materials before 400cycles (see ISO 20344:2011, 7.3.6.).	See annex 2	P													
5.7.4.2	Insocks When insocks are tested in accordance with ISO 20344:2011, 6.12, the wearing surface shall not develop any holes before the following number of cycles has been performed: - 25 600 cycles when dry; - 12 800 cycles when wet.	See annex 2	P													
5.7.5	Chromium VI content When determined in accordance with the test method described in ISO 17075, the quantity of chromium VI in footwear containing leather shall not exceed 3,0 mg/kg.	/	N/A													
5.8	Outsole		P													
5.8.1	Design The outsole may be either cleated or non-cleated. Outsoles with a cleat height of less than 2,5 mm are regarded as uncleated.	non-cleated	P													
5.8.1.1	Thickness The outsole can be composed of several layers. When measured in accordance with ISO 20344:2011, 8.1.2, the sole thickness, d1 and d3, shall fulfil the requirements in Table 17. Table 17 — Requirements for outsole thickness and cleat height <table border="1" data-bbox="258 1272 1024 1482"> <thead> <tr> <th>Type of outsole</th> <th>Class I</th> <th>Class II</th> </tr> </thead> <tbody> <tr> <td>Non-cleated outsole</td> <td>$d_1 \geq 6 \text{ mm}$</td> <td>$d_1 \geq 6 \text{ mm}$</td> </tr> <tr> <td rowspan="3">Cleated outsole</td> <td>$d_1 \geq 4 \text{ mm}$</td> <td>$d_1 \geq 3 \text{ mm}$</td> </tr> <tr> <td>$d_2 \geq 2,5 \text{ mm}$</td> <td>$d_2 \geq 4 \text{ mm}$</td> </tr> <tr> <td></td> <td>$d_3 \geq 6 \text{ mm}$</td> </tr> </tbody> </table>	Type of outsole	Class I	Class II	Non-cleated outsole	$d_1 \geq 6 \text{ mm}$	$d_1 \geq 6 \text{ mm}$	Cleated outsole	$d_1 \geq 4 \text{ mm}$	$d_1 \geq 3 \text{ mm}$	$d_2 \geq 2,5 \text{ mm}$	$d_2 \geq 4 \text{ mm}$		$d_3 \geq 6 \text{ mm}$	$d_1 :6.2\text{mm}$	P
Type of outsole	Class I	Class II														
Non-cleated outsole	$d_1 \geq 6 \text{ mm}$	$d_1 \geq 6 \text{ mm}$														
Cleated outsole	$d_1 \geq 4 \text{ mm}$	$d_1 \geq 3 \text{ mm}$														
	$d_2 \geq 2,5 \text{ mm}$	$d_2 \geq 4 \text{ mm}$														
		$d_3 \geq 6 \text{ mm}$														
5.8.1.2	Cleated area With the exception of the region under the flange of the toecap, at least the shaded area as shown in Figure 38 of ISO 20344:2011 shall have cleats which are open to the side.	/	N/A													
5.8.1.3	Cleat height When tested in accordance with ISO 20344:2011, 8.1, the cleat height, d2, is given in Table 17.	/	N/A													
5.8.2	Tear strength When non-leather outsoles are tested in accordance with ISO 20344:2011, 8.2, the tear strength shall be not less than: - 8 kN/m for a material with a density higher than 0,9 g/cm ³ ; - 5 kN/m for a material with a density lower or equal to 0,9 g/cm ³ .	/	N/A													
5.8.3	Abrasion resistance When outsoles other than those from all-rubber or all-polymeric	See annex 2	P													

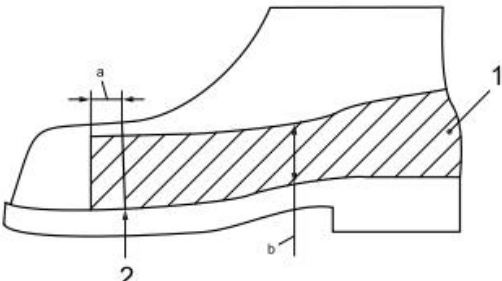
	footwear are tested in accordance with ISO 20344:2011, 8.3, the relative volume loss shall be not greater than 250 mm ³ for materials with a density of 0,9 g/cm ³ or less, and not greater than 150 mm ³ for materials with a density greater than 0,9 g/cm ³ . When outsoles from all-rubber or all-polymeric footwear are tested as described in ISO 20344:2011, 8.3, the relative volume loss shall be not greater than 250 mm ³ .		
5.8.4	<p>Flexing resistance</p> <p>When outsoles are tested in accordance with ISO 20344:2011, 8.4, the cut growth shall be not greater than 4mm before 30 000 flex cycles. Spontaneous cracks are acceptable in the following circumstances.</p> <p>a) Only the centre of the tread area shall be assessed for cracking, i.e. cracks under the toecap zone shall be ignored.</p> <p>b) Superficial cracks up to 0,5 mm deep shall be ignored.</p> <p>c) Soles shall be deemed to be satisfactory if cracks are no deeper than 1,5 mm, no longer than 4 mm and no more than five in number.</p>	/	N/A
5.8.5	<p>Hydrolysis</p> <p>When polyurethane outsoles and soles with an outer layer composed of polyurethane are tested in accordance with ISO 20344:2011, 8.5, the cut growth shall be not greater than 6 mm before 150 000 flex cycles.</p>	/	N/A
5.8.6	<p>Interlayer bond strength</p> <p>When tested in accordance with ISO 20344:2011, 5.2, the bond strength between the outer or cleated layer and the adjacent layer shall be not less than 4,0 N/mm unless there is tearing of any part of the sole, in which case the bond strength shall be not less than 3,0 N/mm.</p>	/	N/A
6	Additional requirements for safety footwear	/	P
6.1	<p>General</p> <p>Additional requirements can be necessary for safety footwear depending upon risks to be encountered at the workplace. In such cases, safety footwear shall conform to the appropriate additional requirements and corresponding marking given in Table 18.</p>	/	/

Table 18 — Additional requirements for special applications with appropriate symbols for marking					
Requirement	Clause	Class		Symbol	
		I	II		
Whole footwear	Penetration resistance	6.2.1	X	X	P
	Electrical properties:	6.2.2			
	— conductive footwear	6.2.2.1	X	X	C
	— antistatic footwear	6.2.2.2	X	X	A
	— electrically insulating footwear	6.2.2.3		X	See EN 50321
	Resistance to inimical environments:	6.2.3			
	— heat insulation of sole complex	6.2.3.1	X	X	HI
	— cold insulation of sole complex	6.2.3.2	X	X	CI
	Energy absorption of seat region	6.2.4	X	X	E
	Water resistance	6.2.5	X		WR
	Metatarsal protection	6.2.6	X	X	M
	Ankle protection	6.2.7	X	X	AN
	Cut resistance	6.2.8	X	X	CR
Upper	Water penetration and absorption	6.3	X		WRU
Outsole	Resistance to hot contact	6.4.1	X	X	HRO
	Resistance to fuel oil	6.4.2	X	X	FO
NOTE The applicability of a requirement to a particular classification is indicated in this table by an X.					

6.2	Whole footwear	/	P
6.2.1	Penetration resistance	/	P
6.2.1.1	Determination of penetration force	/	P
6.2.1.1.1	Metallic anti-penetration insert When footwear is tested in accordance with ISO 20344:2011, 5.8.2, the force required to penetrate the sole unit shall be not less than 1 100 N.	Force:2300N	P
6.2.1.1.2	Non-metallic anti-penetration insert When footwear is tested in accordance with ISO 20344:2011, 5.8.3, using a force of at least 1 100 N, the tip of the test nail shall not penetrate through the test piece. In order to achieve a “pass” result, the tip of the test nail shall not protrude from the test piece. This is to be checked by visual, cinematographic or electrical detection.	/	N/A
6.2.1.2	Construction The penetration-resistant insert shall be built into the bottom of the shoe in such a manner that it cannot be removed without damaging the footwear. Except for non-metallic inserts that also function as an insole, the insert shall not lie above the flange of the safety toecap and shall not be attached to it.	No move	P
6.2.1.3	Dimensions The penetration-resistant insert dimensions shall be measured according to ISO 20344:2011, 5.8.1. The penetration-resistant insert shall be of such a size that, with the exception of the heel region, the maximum distance between the line represented by the feather edge of the last and the edge of the insert (X) is 6,5 mm. In the heel region, the maximum distance between the line represented by the feather edge of the last and the insert (Y) shall be 17 mm (see Figure 14 of ISO 20344:2011). The penetration-resistant insert shall have no more than three holes	/	N/A

	with a maximum diameter of 3 mm to attach it to the bottom of the footwear. The holes shall not lie in the shaded area 1 (see Figure 14 of ISO 20344:2011). Holes in the shaded area 2 shall be disregarded (see Figure 14 of ISO 20344:2011).		
6.2.1.4	Flex resistance of penetration-resistant inserts When penetration-resistant inserts in all types of footwear are tested in accordance with ISO 20344:2011, 5.9, they shall show no visible signs of cracking or delamination after being subjected to 1' 106 flex cycles.	/	N/A
6.2.1.5	Behaviour of penetration-resistant inserts	/	P
6.2.1.5.1	Corrosion resistance of penetration-resistant metallic inserts When all-rubber footwear is tested in accordance with ISO 20344:2011, 5.6.3, the penetration-resistant metallic insert shall exhibit no more than five areas of corrosion, none of which shall exceed 2,5 mm ² . When penetration-resistant metallic inserts to be used in all other types of footwear are tested in accordance with the method described in ISO 20344:2011, 5.6.1, they shall exhibit no more than five areas of corrosion, none of which shall exceed 2,5 mm ² .	No corrosion after test	P
6.2.1.5.2	Penetration-resistant non-metallic inserts Penetration-resistant non-metallic inserts shall comply with the requirements of EN 12568:2010, 6.4, when placed under maximum force after being subjected to the treatments described in EN 12568:2010, 7.4.	/	N/A
6.2.2	Electrical properties	/	N/A
6.2.2.1	Conductive footwear When measured in accordance with ISO 20344:2011, 5.10, after conditioning in a dry atmosphere (see ISO 20344:2011, 5.10.3.3), the electrical resistance shall be not greater than 100 kW.	/	N/A
6.2.2.2	Antistatic footwear When measured in accordance with ISO 20344:2011, 5.10, after conditioning: - in a dry atmosphere, the electrical resistance shall be above 100 kW and less than or equal to 1 000 MW; - in a wet atmosphere, the electrical resistance shall be above 100 kW and less than or equal to 1 000 MW.	/	N/A
6.2.2.3	Electrically insulating footwear Electrically insulating footwear shall fulfil the requirements given in EN 50321.	/	N/A
6.2.3	Resistance to inimical environments	/	N/A
6.2.3.1	Heat insulation of sole complex When footwear is tested in accordance with ISO 20344:2011, 5.12, with the temperature of the hotplate, Thp, at 150 °C, the temperature increases (final temperature, Tf, minus initial	/	N/A

	temperature, T_i) on the upper surface of the insole after 30 min shall be not greater than 22 °C. After testing, the footwear shall conform to the requirements given in ISO 20344:2011, Annex B. Except for the insock, the insulation shall be incorporated in the footwear in such a manner that it cannot be removed without damaging the footwear.																									
6.2.3.2	Cold insulation of sole complex When footwear is tested in accordance with ISO 20344:2011, 5.13, the temperature decrease on the upper surface of the insole shall be not more than 10 °C. Except for the insock, the insulation shall be incorporated in the footwear in such a manner that it cannot be removed without damaging the footwear.	/	N/A																							
6.2.4	Energy absorption of seat region When footwear is tested in accordance with ISO 20344:2011, 5.14, the energy absorption of the seat region shall be not less than 20 J.	/	N/A																							
6.2.5	Water resistance The total wetted area inside the footwear shall be not greater than 3 cm ² when tested in accordance with either: - ISO 20344:2011, 5.15.1, after 100 trough lengths, or - ISO 20344:2011, 5.15.2, after 80 min.	/	N/A																							
6.2.6	Metatarsal protection	/	P																							
6.2.6.1	Construction The metatarsal protective device shall be such that, under impact, the resulting forces are distributed over the sole, the toecap and as large a surface of the foot as possible. The metatarsal protective device shall be attached to the footwear in such a manner that it cannot be removed without damaging the footwear. The metatarsal protective device shall fit the shape of the footwear at the inner and outer side of the foot.	Meet the requirement	P																							
6.2.6.2	Impact resistance of metatarsal protective device When tested in accordance with ISO 20344:2011, 5.16, the minimum clearance at the moment of impact shall be in accordance with Table 19. Table 19 — Minimum clearance at impact <table border="1" data-bbox="264 1617 965 1904"> <thead> <tr> <th colspan="2">Size of footwear</th> <th rowspan="2">Minimum clearance after impact mm</th> </tr> <tr> <th>France</th> <th>UK</th> </tr> </thead> <tbody> <tr> <td>36 and below</td> <td>Up to 3 1/2</td> <td>37,0</td> </tr> <tr> <td>37 and 38</td> <td>4 to 5</td> <td>38,0</td> </tr> <tr> <td>39 and 40</td> <td>5 1/2 to 6 1/2</td> <td>39,0</td> </tr> <tr> <td>41 and 42</td> <td>7 to 8</td> <td>40,0</td> </tr> <tr> <td>43 and 44</td> <td>8 1/2 to 10</td> <td>40,5</td> </tr> <tr> <td>45 and over</td> <td>10 1/2 and above</td> <td>41,0</td> </tr> </tbody> </table>	Size of footwear		Minimum clearance after impact mm	France	UK	36 and below	Up to 3 1/2	37,0	37 and 38	4 to 5	38,0	39 and 40	5 1/2 to 6 1/2	39,0	41 and 42	7 to 8	40,0	43 and 44	8 1/2 to 10	40,5	45 and over	10 1/2 and above	41,0	clearance after impact:35.0mm	P
Size of footwear		Minimum clearance after impact mm																								
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6.2.7	Ankle protection When tested in accordance with ISO 20344:2011, 5.17, the mean value of the test results shall not exceed 10 kN and no single value	8.9kN	P																							

	shall exceed 15 kN.		
6.2.8	Cut resistance footwear	/	N/A
6.2.8.1	Design Cut resistance footwear shall not be of design A (see Clause 4 and 5.2.1).	/	N/A
6.2.8.2	<p>Construction</p> <p>Cut resistance footwear shall have a protective area extending from the feather edge to at least 30 mm above it and from the toecap to the heel end of the footwear. It extends beyond the rear end of the toecap by at least 10 mm. There shall be no gap between the toecap and the protective material. The protective material shall be permanently attached to the footwear. If different materials are used for protection against cutting, they shall either be attached to each other or overlap (see Figure 4).</p>  <p>Key</p> <p>1 protective area 2 rear edge of toecap a Overlap of 10 mm over toecap. b Minimum height of 30 mm above the feather line.</p> <p>Figure 4 — Coverage of protective area</p>	/	N/A
6.2.8.3	Resistance to cutting When tested in accordance with the method described in ISO 20344:2011, 6.14, the cut-resistant index (see EN 388) shall be not less than 2,5.	/	N/A
6.2.8.4	Penetration resistance Cut-resistant footwear shall also comply with the requirements of 6.2.1.	/	N/A
6.3	Upper — Water penetration and absorption When tested in accordance with ISO 20344:2011, 6.13, the water penetration (expressed as the mass increase of the absorbent cloth after 60 min) shall not be higher than 0,2 g and the water absorption shall not be higher than 30 %. Non-functional and decorative stitching and perforations shall not be used on footwear on which water resistance of the upper is claimed, unless they fulfil the above requirements. When the requirement given in 6.2.5 has been met, non-functional and decorative stitching and perforations are acceptable.	/	N/A

6.4	Outsole	/	P																											
6.4.1	Resistance to hot contact When tested in accordance with ISO 20344:2011, 8.7, rubber and polymeric outsoles shall not melt and shall not develop any cracks when bent around the mandrel.	No melt after test	P																											
6.4.2	Resistance to fuel oil When tested in accordance with ISO 20344:2011, 8.6.1, the increase in volume shall be not greater than 12 %. If, after testing in accordance with ISO 20344:2011, 8.6.1, the test piece shrinks by more than 1 % in volume or increases in hardness by more than 10 Shore A hardness units, a further test piece shall be taken and tested in accordance with the method described in ISO 20344:2011, 8.6.2. The cut growth shall be not greater than 6 mm before 150 000 flex cycles.	/	N/A																											
7	<p>Marking</p> <p>Each item of safety footwear shall be clearly and permanently marked, e.g. by embossing or branding, with the following:</p> <ul style="list-style-type: none"> a) size; b) manufacturer's identification mark; c) manufacturer's type designation; d) year and at least quarter of manufacture; e) reference to this International Standard, i.e. ISO 20345:2011; f) f) symbol(s) from Table 2 and Table 18 appropriate to the protection provided and/or, where applicable, the appropriate category (SB, S1 to S5), as described in Tables 20 and 21. <p style="text-align: center;">Table 20 — Marking categories of safety footwear</p> <table border="1" data-bbox="256 1272 1043 1776"> <thead> <tr> <th>Category</th> <th>Basic requirements (Table 2 and Table 3)</th> <th>Additional requirements</th> </tr> </thead> <tbody> <tr> <td>SB</td> <td>I or II</td> <td></td> </tr> <tr> <td>S1</td> <td>I</td> <td>Closed seat region Antistatic properties Energy absorption of seat region Resistance to fuel oil</td> </tr> <tr> <td>S2</td> <td>I</td> <td>As S1, plus: Water penetration and absorption</td> </tr> <tr> <td>S3</td> <td>I</td> <td>As S2, plus: Penetration resistance Cleated outsole</td> </tr> <tr> <td>S4</td> <td>II</td> <td>Closed seat region Antistatic properties Energy absorption of seat region Resistance to fuel oil</td> </tr> <tr> <td>S5</td> <td>II</td> <td>As S4, plus: Penetration resistance Cleated outsole</td> </tr> </tbody> </table> <p><small>NOTE For ease of marking, this table categorizes safety footwear with the most widely used combinations of basic and additional requirements.</small></p> <p style="text-align: center;">Table 21 — Marking categories of safety hybrid footwear</p> <table border="1" data-bbox="261 1910 1043 1984"> <thead> <tr> <th>Category</th> <th>Basic requirements</th> <th>Additional requirements</th> </tr> </thead> <tbody> <tr> <td>SBH</td> <td>Hybrid footwear</td> <td></td> </tr> </tbody> </table> <p>For any additional marking on the footwear related to safety, the</p>	Category	Basic requirements (Table 2 and Table 3)	Additional requirements	SB	I or II		S1	I	Closed seat region Antistatic properties Energy absorption of seat region Resistance to fuel oil	S2	I	As S1, plus: Water penetration and absorption	S3	I	As S2, plus: Penetration resistance Cleated outsole	S4	II	Closed seat region Antistatic properties Energy absorption of seat region Resistance to fuel oil	S5	II	As S4, plus: Penetration resistance Cleated outsole	Category	Basic requirements	Additional requirements	SBH	Hybrid footwear		<p>Meet the requirements according to the material documents provided by the manufacturer</p>	<p>Meet the requirements according to the material documents provided by the manufacturer</p>
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	manufacturer shall provide evidence to support the claim and an explanation in the user notice. For example, if “acid resistant” marking appears, the sole shall be at least tested according to EN 13832-1 (degradation) and shall meet the requirements of EN 13832-3:2006, 6.2.2.3.		
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ANNEX

Annex 1 Questionnaire for the assessment of ergonomic features

1	Is the inside surface of the footwear free from rough, sharp or hard areas that caused you irritation or injury (checked by hand)?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
2	Is the footwear free of features that you consider make wearing the footwear hazardous? (e.g. buckles, straps or other features that may present a risk of trapping or tripping)	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
3	Where fastenings are present, can the fastening be adequately adjusted?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
4	Can the following activities be performed without problems?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	4.1 Walking	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	4.2 Climbing stairs	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	4.3 Kneeling/crouching down	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

Annex 1 Questionnaire for the assessment of ergonomic features

Part	Test condition	Result
vamp and quarter lining	25 600 cycles when dry	No hole
	12 800 cycles when we	No hole
For seat region lining	51 200 cycles when dry	No hole
	256 00 cycles when we	No hole
Insoles	ISO 20344:2011, 7.3,	No hole
Insocks	25 600 cycles when dry	No hole
	12 800 cycles when wet	No hole

CE Label

label specification:

Text of the mark is black or white in color and is left justified. Labels are printed in indelible ink on permanent adhesive backing and shall be affixed at a conspicuous location on the sample or silk-screened onto the sample.



Mark Location: On the product body

----- End of Report -----