

## TECHNICAL SHEET



Article:	<b>B0671 ACE</b>
Norm:	<b>UNI EN ISO 20345:2012</b>
Safety Class:	<b>S1 P SRC</b>
Footwear height:	<b>Mod. A, H 80 mm (&lt; 113 mm; Ref. EN 20345-5.2.2)</b>
Width:	<b>11</b>
Construction:	<b>STROBEL; INJECTED BIDENSITY SOLE</b>
Cleaning and maintenance:	Use only soft brushes and water. Do not use substances like alcohol, thinners, gasoline, oil or any other chemicals. Keep the footwear, dry and clean, in a proper place at room temperature.
Suggested fields:	<b>Building, light industry, services, automotive, automated lines.</b>

Entire footwear: components				
Component	Description	Value	Norm Requirements	EN ISO 20345
Metal-free SLIMCAP toe-cap	Impact resistance(200 J)			
	• Free height after impact	14,0 mm	≥ 14 mm	5.3.2.3
	Compression resistance (15 kN)			
	• Free height after compression	14,5 mm	≥ 14 mm	5.3.2.4
Sole (SRC)	Slip resistance			
	• SRA – Sole (entire sole)	0,38	≥ 0,32	5.3.5.4
	• SRA – Heel (Angle of 7°)	0,32	≥ 0,28	5.3.5.4
	• SRB – Sole (entire sole)	0,18	≥ 0,18	5.3.5.4
	• SRB – Heel (Angle of 7°)	0,13	≥ 0,13	5.3.5.4
Fresh'n Flex (P)	Puncture resistance	No perforation	≥ 1100 N	6.2.1.1.2
Footbed (A)	Antistatic properties			
	• Electrical resistance	dry 8,10 x 10 <sup>8</sup> Ω humid 2,23 x 10 <sup>8</sup> Ω	≥ 10 <sup>5</sup> Ω , ≤ 10 <sup>9</sup> Ω ≥ 10 <sup>5</sup> Ω , ≤ 10 <sup>9</sup> Ω	6.2.2.2 6.2.2.2
Sole/Upper Heat (HI)	Thermal insulation			
	Insole temperature increase	N/A	≤ 22°C	6.2.3.1
Cold (CI)	Insole temperature release	N/A	≤ 10°C	6.2.3.2
Heel (E)	Shock-absorption in the heel region	33 J	≥ 20 J	6.2.4
(WR)	Water resistance (Water absorption)	N/A	≤ 3 cm <sup>2</sup>	6.2.5
(M)	Metatarsal protection	N/A	≥ 40 mm	6.2.6

Upper				
Component	Description	Value	Norm Requirements	EN ISO 20345
Water-repellent Nabuck Leather	Tear resistance	168 N	≥ 120 N	5.4.3
	Traction resistance	16 N/mm <sup>2</sup>	≥ 15 N/mm <sup>2</sup>	5.4.4
	Water steam permeability	3,8 mg/cm <sup>2</sup> h	≥ 0.8 mg/cm <sup>2</sup> h	5.4.6
	pH value	4,05	≥ 3,2	5.4.7
	Chromium VI	Not detected	Not detectable	5.4.9
	Water passed	N/A	≤ 0.2 g	6.3
	Water absorption	N/A	≤ 30%	6.3

Lining				
Component	Description	Value	Norm Requirements	EN ISO 20345
Tessuto 3D hi-tech	Tear resistance	45 N	≥ 15 N	5.5.1
	Abrasion resistance	<ul style="list-style-type: none"> <li>Dry : the surface shows no holes</li> <li>humid: the surface shows no holes</li> </ul>	No holes till 51.200 cycles	5.5.2
	Water steam release	21,0 mg/cm <sup>2</sup> h	≥ 2,0 mg/cm <sup>2</sup> h	5.5.3
	pH value	N/A	Not detectable	5.5.4
	Chromium VI	N/A	Not detectable	5.5.5

Insole				
Component	Description	Value	Norm Requirements	EN ISO 20345
Fresh'n Flex	Thickness	3,7 mm	≥ 2,0 mm	5.7.1
	pH value	N/A	Not detectable	5.7.2
	Water absorption	82 mg/cm <sup>2</sup>	≥ 70 mg/cm <sup>2</sup>	5.7.3
	Water release	90 %	≥ 80 %	5.7.3
	Abrasion resistance (after 400 cycles)	No damage	Damage ≤ to norms reference	5.7.4.1
	Chromium VI	N/A	Not detectable	5.7.5

Removable footbed				
Component	Description	Value	Norm Requirements	EN ISO 20345
Dry'n air	Thickness	3,5±0,5 mm	N/A	5.7.1
	pH value	N/A	Not detectable	5.7.2
	Water absorption	Permeable	Permeable or ≥ 70mg/cm <sup>2</sup>	5.7.3
	Water release	Permeable	Permeable or ≥ 80%	5.7.3
	Abrasion resistance	No damage	Dry No holes till 25600 cycles Humid no holes till 12800 cycles	5.7.4.2
	Chromium VI	N/A	Not detectable	5.7.5

Sole				
Component	Description	Value	Norm Requirements	EN ISO 20345
PU Midsole Outsole TPU SKIN: (TPU high density)	Sole thickness without profile	6 mm	≥ 4 mm	5.8.1.1
	Profile height	2,7 mm	≥ 2,5mm	5.8.1.3
	Tear resistance	5,7 kN/m	≥ 5 kN/m	5.8.2
	Abrasion resistance	38 mm <sup>3</sup>	≤ 250 mm <sup>3</sup>	5.8.3
	• relative volume loss			
	Flexion resistance	1,8 mm	≤ 4 mm	5.8.4
	• Notches increase after 30.000 cycles			
	Notches increase after 150.00 cycles	2 mm	≤ 6 mm	5.8.5
	Tread- Midsole detachment	N/A	≥ 4 N/mm; (* ) ≥ 3 N/mm with sole ripping	5.8.6
	(HRO) Contact heat resistance (300°C)	N/A	No damage (melting, breaking)	6.4.1
(FO) Fuel resistance (volume changes)	0,7 %	≤ 12%	6.4.2	

Date: 14/07/2016

Issued by: Responsible technician Eng. Cataldo De Luca

Signature

