

TECHNICAL SHEET



Article:	BO676 BOWLING
Norm:	UNI EN ISO 20345:2012
Safety Class:	S3 SRC
Footwear height:	Mod. A, H 81 mm (< 113 mm; Ref. EN 20345-5.2.2)
Width:	11
Construction:	STROBEL; INJECTED BIDENSITY SOLE
Cleaning and maintenance:	<i>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.</i>
Suggested fields:	Building, light industry, services, automotive, automated lines, handicraft.

Entire footwear: components				
Component	Description	Value	Norm Requirements	EN ISO 20345
Metal-free SLIMCAP toe-cap	Impact resistance(200 J) • Free height after impact	15 mm	≥ 14 mm	5.3.2.3
	Compression resistance (15 kN) • Free height after compression	15,5mm	≥ 14 mm	5.3.2.4
Sole (SRC)	Slip resistance • SRA – Sole (entire sole) • SRA – Heel (Angle of 7°) • SRB – Sole (entire sole) • SRB – Heel (Angle of 7°)	0,38 0,32 0,18 0,13	≥ 0,32 ≥ 0,28 ≥ 0,18 ≥ 0,13	5.3.5.4 5.3.5.4 5.3.5.4 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: 4,48 x 10 ⁸ Ω Humid: 7,66 x 10 ⁷ Ω	≥ 10 ⁵ Ω , ≤ 10 ⁹ Ω ≥ 10 ⁵ Ω , ≤ 10 ⁹ Ω	6.2.2.2 6.2.2.2
Sole/Upper Heat (HI) Cold (CI)	Thermal insulation Insole temperature increase Insole temperature decrease	N/A N/A	≤ 22°C ≤ 10°C	6.2.3.1 6.2.3.2
Heel (E)	Shock-absorption in the heel region	29 J	≥ 20 J	6.2.4
(WR)	Water resistance (Water absorption)	N/A	≤ 3 cm ²	6.2.5
(M)	Metatarsal protection	N/A	≥ 40 mm	6.2.6

Upper				
Component	Description	Value	Norm Requirements	EN ISO 20345
Water-resistant technical textile and Suede leather	Tear resistance Traction resistance Water steam permeability pH value Chromium VI	245 N N/A 2,0 mg/cm ² h N/A N/A	≥ 60 N ≥ 15 N/mm ² ≥ 0.8 mg/cm ² h ≥ 3,2 Not detectable	5.4.3 5.4.4 5.4.6 5.4.7 5.4.9
	Water passed Water absorption	0,00g 26%	≤ 0.2 g ≤ 30%	6.3 6.3

Lining				
Component	Description	Value	Norm Requirements	EN ISO 20345
Tessuto 3D hi-tech	Tear resistance	47 N	≥ 15 N	5.5.1
	Abrasion resistance	<ul style="list-style-type: none"> Dry : the surface shows no holes humid: the surface shows no holes 	No holes till 51.200 cycles	5.5.2
	Water steam release	21,1 mg/cm ² h	≥ 2,0 mg/cm ² 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'nFlex	Thickness	3,7 mm	≥ 2,0 mm	5.7.1
	pH value	N/A	Not detectable	5.7.2
	Water absorption	86 mg/cm ²	≥ 70 mg/cm ²	5.7.3
	Water release	94 %	≥ 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 ²	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	Sole thickness without profiles	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	<ul style="list-style-type: none"> relative volume loss 	38 mm ³	≤ 250 mm ³	5.8.3
	Flexion resistance	<ul style="list-style-type: none"> Notches increase after 30.000 cycles 	1,8 mm	≤ 4 mm	5.8.4
	Notches increase after 150.00 cycles	2 mm	≤ 6 mm	5.8.5	
Outsole TPU SKIN: (TPU high density)	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	

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