

TECHNICAL SHEET



Article: **B0952 PULSAR**
 Norm: **UNI EN ISO 20345:2012**
 Safety Class: **S1 P SRC**

Footwear height: **Mod. A, H 99 mm (< 113 mm, Rif. EN 20345-5.2.2)**

Width: **12**

Construction: **STROBEL; PU SOLE MONODENSITY**

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: **Mechanics, building finishes, light industry, craftsman, automotive, automated lines, services.**

Entire footwear: components				
Component	Description	Value	Norm Requirements	EN 20345
Composit toe-cap SLIMCAP	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) • SRA – heel (angle 7°) • SRB – sole (entire sole) • SRB – heel (angle 7°)	0,48 0,45 0,22 0,20	≥ 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'nFlex (P)	Puncture resistance	No perforation	≥ 1100 N	6.2.1.1.2
Footbed(A)	Antistatic properties • Electrical resistance	Dry: 4,0 x 10 ⁸ Ω Humid: 1,8 x 10 ⁸ 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	35 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 20345
High Tech Fabric	Tear resistance	245 N	≥ 60 N	5.4.3
	Traction resistance	N/A	≥ 15 N/mm ²	5.4.4
Fabric	Water steam permeability	2,0 mg/cm ² h	≥ 0.8 mg/cm ² h	5.4.6
	pH value	N/A	≥ 3,2	5.4.7
	Chromium VI	N/A	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 20345	
3D hi-tech fabric	Tear resistance	45 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	21,0 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 20345
Fresh'nFlex	Thickness	3,7 mm	≥ 2,0 mm	5.7.1
	pH value	N/A	Not detectable	5.7.2
	Water absorption	82mg/cm ²	≥ 70 mg/cm ²	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

Removablefootbed				
Component	Description	Value	Norm Requirements	EN 20345
Anatomical, breathable, textile and expanded polymeric material	Thickness	3,0±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 20345	
PU MONODENSIY SOLE	Sole thickness without profiles	6,5 mm	≥ 4 mm	5.8.1.1	
	Profile height	4,5 mm	≥ 2,5 mm	5.8.1.3	
	Tear resistance	6,2 kN/m	≥ 5 kN/m	5.8.2	
	Abrasion resistance	<ul style="list-style-type: none"> relative volume loss 	100 mm ³	≤ 250 mm ³	5.8.3
	Flexion resistance	<ul style="list-style-type: none"> Notches increase after 30.000 cycles 	2,1 mm	≤ 4 mm	5.8.4
		<ul style="list-style-type: none"> Hydrolysis 		≤ 6 mm	5.8.5
	Notches increase after 150.00 cycles	3 mm	≥ 4 N/mm;	5.8.6	
	Sole-Midsole detachment	N/A	(*) ≥ 3 N/mm with sole ripping		
	(HRO) Contact heat resistance (300°C)	N/A	No damage (melting, breaking)	6.4.1	
	(FO) Fuel resistance (volume variations)	6 %	≤ 12%	6.4.2	

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