

## TECHNICAL SHEET



Article:	<b>B0888N BE-UNIFORM TOP</b>
Norm:	<b>UNI EN ISO 20345:2012</b>
Safety Class:	<b>S3 HRO CI HI SRC</b>
Footwear height:	<b>Mod. B, H 140 mm (≥113 mm; Rif. EN 20345-5.2.2)</b>
Width:	<b>12</b>
Construction:	<b>STROBEL; DUAL DENSITY</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>Construction, agriculture, miner, extractive, heavy industry, light industry, shipbuilding, big plants, handicraft.</b>

Entire footwear: components				
Component	Description	Value	Norm Requirements	EN 20345
Metal-free SLIMCAP toe-cap	Impact resistance (200 J) • Free height after impact	14,5mm	≥ 14 mm	5.3.2.3
	Compression resistance (15 kN) • Free height after compression	14,0mm	≥ 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°)	0,62 0,53 0,31 0,27	≥ 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
Footbed (A)	Antistatic properties • Electrical resistance	Dry 7,1 x 10 <sup>8</sup> Ω Humid 1,18 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	Thermal insulation			
Heat (HI)	• Insole temperature increase	18° C	≤ 22° C	6.2.3.1
Cold (CI)	• Insole temperature decrease	8° C	≤ 10° C	6.2.3.2
Heel (E)	Shock-absorption in the heel region	34 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 20345
Full grain leather	Tear resistance	186 N	≥ 120 N	5.4.3
	Traction resistance	N/A	≥ 15 N/mm <sup>2</sup>	5.4.4
	Water stream permeability	1,5 mg/cm <sup>2</sup> h	≥ 0,8 mg/cm <sup>2</sup> h	5.4.6
	pH value	5	≥ 3,2	5.4.7
	Chromium VI	N/A	Not detectable	5.4.9
	Water passed	0,0 g	≤ 0.2 g	6.3
	Water absorption	22 %	≤ 30%	6.3

Lining				
Component	Description	Value	Norm Requirements	EN 20345
3D Fabric	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 hole till 51.200 cycles	5.5.2
	Water steam release	21 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 20345
Fresh'n Flex	Thickness	3,5 mm	≥ 2,0 mm	5.7.1
	pH value	N/A	Not detectable	5.7.2
	Water absorption	98 mg/cm <sup>2</sup>	≥ 70 mg/cm <sup>2</sup>	5.7.3
	Water release	92 %	≥ 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 20345
Breathable technical textile and expanded polymer material	Thickness	3,5±0,5 mm	N/A	5.7.1
	pH value	N/A	Not detectable	5.7.2
	Water absorption	Permeable through the holes	Permeable or ≥ 70mg/cm <sup>2</sup>	5.7.3
	Water release	Permeable through the holes	Permeable or ≥ 80%	5.7.3
	Abrasion resistance	No damage	Dry: no hole till 25600 cycles humid: no hole till 12800 cycles	5.7.4.2
	Chromium VI	N/A	Not detectable	5.7.5

Sole					
Component	Description	Value	Norm requirements	EN 20345	
Midsole PU; Rubber Outsole	Sole thickness without profiles	7,1 mm	≥ 4 mm	5.8.1.1	
	Profile height	3,5 mm	≥ 2,5 mm	5.8.1.3	
	Tear resistance	9,5 kN/m	≥ 8 kN/m	5.8.2	
	Abrasion resistance	<ul style="list-style-type: none"> <li>Relative volume loss</li> </ul>	110 mm <sup>3</sup>	≤ 250 mm <sup>3</sup>	5.8.3
	Flexion resistance	<ul style="list-style-type: none"> <li>Notches increase after 30.000 cycles</li> </ul>	2,2 mm	≤ 4 mm	5.8.4
	Hydrolysis	<ul style="list-style-type: none"> <li>Notches increase after 150.00 cycles</li> </ul>	3,2 mm	≤ 6mm	5.8.5
	Detachment outsole-midsole		3,7 *	≤ 4 N/mm; (*) ≤ 3 N/mm with sole ripping	5.8.6
	(HRO) (Contact heat resistance 300°C)	No damage		No damage (melting, breaking)	6.4.1
	(FO) Fue lresistance (volume changes)	4,6 %		≤ 12%	6.4.2

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