

## TECHNICAL SHEET



Article:	<b>B1002A K-POP</b>
Norm:	<b>UNI EN ISO 20345:2011</b>
Safety Class:	<b>S1 P HRO SRC</b>
Footwear height:	<b>Mod. A, H 87 mm (&lt; 113 mm; Rif. EN 20345-5.2.2)</b>
Width:	<b>12</b>
Weight:	<b>570 g</b>
Construction:	<b>STROBEL; CEMENTED DUAL DENSITY - PU/GUMMI</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 (finisher), light industry, automotive, automation, handicraft, services.</b>

Entire footwear: components				
Component	Description	Value	Norm Requirements	EN 20345
Aluminium toe-cap	Impact resistance (200 J)	17 mm	≥ 14 mm	5.3.2.3
	• Free height after impact			
Sole (SRC)	Compression resistance (15 kN)	21 mm	≥ 14 mm	5.3.2.4
	• Free height after compression			
Fresh'n Flex (P)	Slip resistance			
	• SRA – sole (entire sole)	0,56	≥ 0,32	5.3.5.4
	• SRA – heel (angle of 7°)	0,36	≥ 0,28	5.3.5.4
	• SRB – sole (entire sole)	0,20	≥ 0,18	5.3.5.4
Footbed (A)	• SRB – heel (angle of 7°)	0,15	≥ 0,13	5.3.5.4
	Puncture resistance	No perforation	≥ 1100 N	6.2.1
Sole/upper	Antistatic properties			
	• Electrical resistance	dry 5,80 x 10 <sup>8</sup> Ω humid 7,45 x 10 <sup>7</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
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	29 J	≥ 20 J
(WR)	Water resistance (water absorption)	N/A	≤ 3 cm <sup>2</sup> wetted area after 4800 cycles	6.2.5
(M)	Metatarsal protection	N/A	≥ 40 mm	6.2.6

Upper				
Component	Description	Value	Norm requirements	EN 20345
K-POP textile	Tear resistance	110 N	≥ 60 N	5.4.3
	Traction resistance	N/A	≥ 15 N/mm <sup>2</sup>	5.4.4
	Water stream permeability	22,7 mg/cm <sup>2</sup> h	≥ 0,8 mg/cm <sup>2</sup> h	5.4.6
	Water vapor coefficient	182 mg/cm <sup>2</sup>	≥ 15 mg/cm <sup>2</sup>	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	47 N	≥ 15 N	5.5.1
	Abrasion resistance	<ul style="list-style-type: none"> <li>Dry: the surface shows no holes</li> </ul>	No holes till 51.200 cycles	5.5.2
		<ul style="list-style-type: none"> <li>Humid: the surface shows no holes</li> </ul>	No holes till 25.600 cycles	5.5.2
	Water stream release	21,1 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	3,7 mm	≥ 2,0 mm	5.7.1
	pH value	N/A	Not detectable	5.7.2
	Water absorption	86 mg/cm <sup>2</sup>	≥ 70 mg/cm <sup>2</sup>	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 20345
Dry'n Air Omnia	Thickness	3,5 ± 0,5 mm (tip) 9 ± 0,5 mm (heel)	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 holes till 25600 cycles humid: no holes till 12800	5.7.4.2
	Chromium VI	N/A	Not detectable	5.7.5

\*Footwear also certified with DRY'N AIR SCAN&FIT OMNIA and DRY'N AIR GEL footbeds

Sole					
Component	Description	Value	Norm requirements	EN 20345	
Midsole PU;	Sole thickness without profile	6 mm	≥ 4 mm	5.8.1.1	
	Profile height	4 mm	≥ 2,5mm	5.8.1.3	
	Tear resistance	8,3 kN/m	≥ 8 kN/m	5.8.2	
	Abrasion resistance	<ul style="list-style-type: none"> <li>Relative volume loss</li> </ul>	75 mm <sup>3</sup>	≤ 250 mm <sup>3</sup>	5.8.3
Outsole GUMMI	Flexion resistance	<ul style="list-style-type: none"> <li>Notches increase after 30.000 cycles</li> </ul>	1,5 mm	≤ 4 mm	5.8.4
	Hydrolysis	<ul style="list-style-type: none"> <li>Notches increase after 150.00 cycles</li> </ul>	2 mm	≤ 6mm	5.8.5
	Sole thickness without profile	4,7	≤ 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) Fuel resistance (volume changes)	2%	≤ 12%	6.4.2	

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