TECHNICAL SHEET

Article: B1233A i-META

Norm: EN ISO 20345:2022

Safety Class: S3L ESD M FO SR

Sole	S40 WHITE
Weight, size 42:	570 g
Footwear height:	100 mm
Width:	11,5
Construction / Sole:	STROBEL; ESD AirTech/Tpu-Skin injected outsole
Anti-perforation insert	Fresh'n Flex ESD ballistic fabric
Insole:	
Footbed supplied:	Dry'n Air Omnia Comfort Plus
Other usable Footbeds (certified):	Dry'n Air Omnia ESD; Dry'n air Record ESD Weareco; Dry'n Air Scan&Fit Omnia; Secosol; Secosol Dynamic
ESD Protection for electronic devices	CEI EN 61340-4-3:2018; CEI EN 61340-4-5:2018; CEI EN 61340-5-1:2016

ESD Protection (Electrostatic discharges) for electronic devices

Suitable for use in EPA areas (Electrostatic discharges protected area)

Component	Description	Value	Minimum Requirement	Norm
ESD Footwear	Sole electrical ground resistance (resistance of the whole worn footwear / metal floor)	3,22 x 10^7 Ω	< 1,00 x 10^9Ω	CEI EN 61340-5-1
	Sole electrical transversal resistance (footwear resistance)	7,22 x 10^7 Ω	≤ 1,00 x 10^8 Ω	CEI EN 61340-5-1
	Chargeability	23,41 V	< 100 V	CEI EN 61340-5-1

Entire footwear: protections

Component	Description	Value	Minimum Requirement	Norm
SlimCap toe-cap	Impact Resistance (200J)	15,0 mm	≥ 14,0 mm	5.3.2.3
	Compression Resistance (15 kN)	16,0	≥14,0 mm	5.3.2.4
Outsole (SR)	Slip Resistance 20345:2022			
	•Ceramic + Det. - Heel	0.41	≥ 0.31	5.3.5.2
	•Ceramic + Det. + Forepart	0.45	≥ 0,36	5.3.5.2
	•Ceramic + Glycerin (SR) - Heel	0.24	≥ 0,19	6.2.10.1
	•Ceramic + Glycerin (SR) - Forepart	0,27	≥ 0,22	6.2.10.1
Fresh'n Flex (PL)	Puncture resistance. 20345:2022	No perforation	No perforation at ≥1100N	6.2.1.1.3
Footwear with insole (A)	Antistatic properties			
	Electrical resistance	dry 90,41 MΩ - wet 19,74 MΩ	0,1 ÷ 1000 MΩ	6.2.2.2
Energy absorption (E)	Shock-absorption in the heel region	31 J	≥ 20 J	6.2.4
(M)	Metatarsal protection	43,5 mm	≥ 40 mm	6.2.6

Upper

Materials	Description	Value	Minimum Requirement	Norm
Technical fabric	Tear Strenght	83 N	≥ 60 N	5.4.3
	Water vapour permeability	13,9 mg/cm² h	≥ 0,8 mg/cm² h	5.4.6
	Water vapour coefficient	113,1 mg/cm²	≥ 15mg/cm²	5.4.6
	Water passed	0,1 g	≤ 0,2 g	6.3
	Water absorption	25,5 %	≤ 30%	6.3

Lining

Materials	Description	Value	Minimum Requirement	Norm
Hi-tech 3D fabric	Tear Strenght	51 N	≥ 15 N	5.5.1
	Abrasion resistance	• No dry hole	No holes before 51,200 cycles	5.5.2
		• No hole in humid environment	No holes before 25,600 cycles	5.5.2
	Water steam permeability	80,1 mg/cm² h	≥ 2,0 mg/cm² h	5.5.3

Sole

Materials	Description	Value	Minimum Requirement	Norm
AirTech et Tpu Skin ESD Anti-Fatigue Sole	Cleat height	4,5 mm	≥ 2,5 mm	5.8.1.3
	Tear Strenght	8,7 kN/m	≥ 8 kN/m	5.8.2
	Abrasion resistance	73 mm³	≤ 250 mm³	5.8.3
	Flexural resistance after 30,000 cycles	2,0 mm	≤ 4,0 mm	5.8.4
	Flexural resistance after 150,000 cycles (hydrolysis)	2,5 mm	≤ 6,0 mm	5.8.5
	Upper/outsole bond strenght	N/A	> 4 N/mm; ≥ 3 N/mm with sole tear*	5.8.6
	Hydrocarbon resistance FO (volume change)	9 %	≤ 12%	6.4.2

Issued by: Innovation Director Ing. Cataldo De Luca **Signature**

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