

## TECHNICAL SHEET



**Article:** B1712A BOSTON

**Norm:** EN ISO 20345:2022

**Safety Class:** S3S ESD LG SC FO SR

<b>Sole</b>	S70 BLACK BLU
<b>Weight, size 42:</b>	567 g
<b>Footwear height:</b>	130
<b>Width:</b>	11,5
<b>Construction / Sole:</b>	STROBEL; ESD AirTech/Tpu-Skin injected outsole
<b>Anti-perforation insert</b>	Fresh'n Flex Plus Super Light (PS)
<b>Insole:</b>	
<b>Footbed supplied:</b>	Dry'n Air Omnia Comfort Cube
<b>Other usable Footbeds (certified):</b>	Dry'n Air Omnia ESD; Dry'n Air Scan&Fit Omnia; Dry'n Air Omnia ESD Weareco; Super Comfort; Secosol; S
<b>ESD Protection for electronic devices</b>	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)	$5,19 \times 10^7 \Omega$	$< 1,00 \times 10^9 \Omega$	CEI EN 61340-5-1
	Sole electrical transversal resistance (footwear resistance)	$4,63 \times 10^7 \Omega$	$\leq 1,00 \times 10^8 \Omega$	CEI EN 61340-5-1
	Chargeability	20 V	$< 100 \text{ V}$	CEI EN 61340-5-1

### Entire footwear: protections

Component	Description	Value	Minimum Requirement	Norm
SlimCap toe-cap	Impact Resistance (200J)	16,5 mm	$\geq 14,0 \text{ mm}$	5.3.2.3
	Compression Resistance (15 kN)	20,0 mm	$\geq 14,0 \text{ mm}$	5.3.2.4
Outsole (SR)	Slip Resistance 20345:2022			
	•Ceramic + Det. - Heel	0,38	$\geq 0,31$	5.3.5.2
	•Ceramic + Det. + Forepart	0,42	$\geq 0,36$	5.3.5.2
	•Ceramic + Glycerin (SR) - Heel	0,24	$\geq 0,19$	6.2.10.1
	•Ceramic + Glycerin (SR) - Forepart	0,28	$\geq 0,22$	6.2.10.1
Fresh'n Flex Plus Super Light (PS)	Puncture resistance. 20345:2022	1380 N	Average value $\geq 1100\text{N}$ ; Single value $\geq 950\text{N}$	6.2.1.1.4
Footwear with insole (A)	Antistatic properties			
	Electrical resistance	wet $40,5 \text{ M}\Omega$ - dry $7,98 \text{ M}\Omega$	$0,1 \div 1000 \text{ M}\Omega$	6.2.2.2
Energy absorption (E)	Shock-absorption in the heel region	31 J	$\geq 20 \text{ J}$	6.2.4
(SC)	•Abrasion resistance of the toe region	Comforms	After 8000 cycles, the SC has no holes	6.2.9

## Upper

Materials	Description	Value	Minimum Requirement	Norm
Water resistant Velour microfiber	Tear Strenght	93 N	≥ 60 N	5.4.3
	Tensile Strenght	N/A	≥ 15 N/mm <sup>2</sup>	5.4.4
	Water vapour permeability	10,5 mg/cm <sup>2</sup> h	≥ 0,8 mg/cm <sup>2</sup> h	5.4.6
	Water vapour coefficient	85,8 mg/cm <sup>2</sup>	≥ 15mg/cm <sup>2</sup>	5.4.6
	Chromium VI content (if leather)	N/A	Not detectable	5.4.9
	Water passed	0,00 g	≤ 0,2 g	6.3
	Water absorption	6.1 %	≤ 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/cm <sup>2</sup> h	≥ 2,0 mg/cm <sup>2</sup> h	5.5.3

## Sole

Materials	Description	Value	Minimum Requirement	Norm
AirTech et Tpu Skin ESD Anti-Fatigue Sole	Cleat height	4,0 mm	≥ 2,5 mm	5.8.1.3
	Tear Strenght	11,4 kN/m	≥ 8 kN/m	5.8.2
	Abrasion resistance	169 mm <sup>3</sup>	≤ 250 mm <sup>3</sup>	5.8.3
	Flexural resistance after 30,000 cycles	2 mm	≤ 4,0 mm	5.8.4
	Flexural resistance after 150,000 cycles (hydrolysis)	3,5 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)	4 %	≤ 12%	6.4.2
AirTech et Tpu Skin ESD Anti-Fatigue Sole	(LG) Geometrical Prescriptions 20345:2022	Accordinging	Accordinging	6.4.3

Issued by: Innovation Director Ing. Cataldo De Luca

Signature



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