

TECHNICAL SHEET



Article: **B1711B AMSTERDAM**

Norm: **EN ISO 20345:2022**

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

| | |
|--|--|
| Sole | S70 BLACK ORANGE |
| Weight, size 42: | 568 g |
| Footwear height: | 90 |
| Width: | 11,5 |
| Construction / Sole: | STROBEL; ESD AirTech/Tpu-Skin injected outsole |
| Anti-perforation insert | Fresh'n Flex Plus Super Light (PS) |
| Insole: | |
| Footbed supplied: | Dry'n Air Omnia Comfort Cube |
| Other usable Footbeds (certified): | Dry'n Air Omnia ESD; Dry'n Air Scan&Fit Omnia; Dry'n Air Omnia ESD Weareco; 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) | $3,11 \times 10^7 \Omega$ | $< 1,00 \times 10^9 \Omega$ | CEI EN 61340-5-1 |
| | Sole electrical transversal resistance (footwear resistance) | $6,23 \times 10^6 \Omega$ | $\leq 1,00 \times 10^8 \Omega$ | CEI EN 61340-5-1 |
| | Chargeability | 67,28 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 |
| Thermal insulation | Thermal insulation | | | |
| | • Insole Temp. Increase (HI) | N/A | $\leq 22 \text{ }^\circ\text{C}$ | 6.2.3.1 |
| | • Decreased Insole Temp. (CI) | $7,0 \text{ }^\circ\text{C}$ | $\leq 10 \text{ }^\circ\text{C}$ | 6.2.3.2 |
| Energy absorption (E) | Shock-absorption in the heel region | 31 J | $\geq 20 \text{ J}$ | 6.2.4 |

Upper

| Materials | Description | Value | Minimum Requirement | Norm |
|---|----------------------------------|--------------------------|----------------------------|-------|
| Full grain waxy leather water resistant | Tear Strenght | 216 N | ≥ 120 N | 5.4.3 |
| | Tensile Strenght | N/A | ≥ 15 N/mm ² | 5.4.4 |
| | Water vapour permeability | 1,8 mg/cm ² h | ≥ 0,8 mg/cm ² h | 5.4.6 |
| | Water vapour coefficient | 17,4 mg/cm ² | ≥ 15mg/cm ² | 5.4.6 |
| | Chromium VI content (if leather) | Not detectable | Not detectable | 6.11 |
| | Water passed | 0,0 g | ≤ 0,2 g | 6.3 |
| | Water absorption | 21 % | ≤ 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 ² h | ≥ 2,0 mg/cm ² h | 5.5.3 |
| | Chromium VI content (if leather) | N/A | Not detectable | 5.5.5 |

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 ³ | ≤ 250 mm ³ | 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 | According | According | 6.4.3 |

Issued by: Innovation Director Ing. Cataldo De Luca

Signature



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