



Prod. Ref.	79490-000
Safety cat.	S3 ESD SRC
Range of sizes	35 - 48 (2 - 13)
Weight (sz. 8)	560 g
Shape	A
Width	11

Description: Black **TECHSHELL**, innovative, very tough, abrasion resistant, water repellent and breathable fabric and black suede-like microfiber shoe, **SANY-DRY**[®] lining, anti-shock, slipping resistant, non metallic **APT Plate** midsole **Zero Perforation, even with a 3 mm diameter nail**

Plus: High electrical conductivity. Stability of the conductive capability for extended period. **MEMORY PLUS ESD** footbed, anatomic, punched and preformed footbed, with low electric resistance. It guarantees ergonomic comfort and high breathability. The memory layer, made of slow memory polyurethane foam, adapts itself to the sole of the foot. The abrasion resistant covering textile, ladderproof and antibacterial, absorbs moisture and leaves the foot always dry. Perfumed sole. **Boa**[®] closure system allows to put on and take off the shoe easily and quickly. Made of aviation INOX steel, **Boa**[®] laces resist to the highest stress. With one single hand it is possible to set the **Boa**[®] closure system easily and adjust it to the millimetre (**Micro-adjustability - 1 click = 1 mm**)

Suggested uses: Footwear for microelectronic industries. Recommendable in **ATEX** environments

Care and maintenance: Clean after each use and dry off away from direct heat. Avoid contact with aggressive chemicals or extreme temperature. Avoid immersion in sea water, lime water or cement mixed with water

Recommendation: It is always necessary to wear socks made of natural fibers i.e. wool or cotton, because they provide the best performance with electrical conductivity. Avoid introducing any foreign body between foot and footbed of the footwear (i.e. insoles or similar items not equipped by the manufacturer), as they could make void the electrical properties the footwear have been conceived for. Do not undervalue the effect of ageing and contamination of the footwear: during time their electrical resistance can be subjected to alterations. It is always important to check the electrical properties of footwear through the use of special testing devices in electrostatic protected area (EPA), according to the European standard CEI EN 61340-5-1

MATERIALS / ACCESSORIES

SAFETY TECHNICAL SPECIFICATIONS

		Clause EN ISO 20345:2011	Description	Unit	Cofra result	Requirement	
Complete shoe	E.S.D. features	CEI EN					
		61340-5-1	Electric resistance of footwear to floor	MΩ	32,5	< 1000	
		61340-5-1	Cross resistance	MΩ	22,5	≤ 100	
			61340-5-1	Charge ability	V	66	< 100
		Toe cap: ALUMINIUM made, ultra light, impact resistant until 200 J and compression resistant until 1500 kg	5.3.2.3	Shock resistance (clearance after shock)	mm	15,5	≥ 14
			5.3.2.4	Compression resistance (clearance after compression)	mm	16,5	≥ 14
		Anti perforation midsole: in multi-layers highly tensile fabric, penetration resistant, Zero Perforation , with low electric resistance	6.2.1	Penetration resistance	N	To 1100 N	≥ 1100
						No perforation	
		Energy absorption system	6.2.4	Shock absorption	J	31	≥ 20
	Upper	TECHSHELL , innovative, very tough, abrasion resistant, water repellent and breathable fabric, colour black	5.4.6	Water vapour permeability	mg/cmq h	> 1,8	≥ 0,8
			Permeability coefficient	mg/cmq	> 15,7	> 15	
6.3.1			Water absorption		15%	≤ 30%	
			Water penetration		0,0 g	≤ 0,2 g	
5.4.3			Tear resistance	N	233	≥ 60	
	Abrasion resistance	Cycle	> 600.000				
Vamp	Textile, breathable, abrasion resistant, colour black	5.5.3	Water vapour permeability	mg/cmq h	> 6,3	≥ 2	

lining	Thickness 1,2 mm		Permeability coefficient	mg/cmq	> 51,1	≥ 20
Quarter	SANY-DRY® , breathable, abrasion resistant, colour yellow fluo and black	5.5.3	Water vapour permeability	mg/cmq h	> 10,3	≥ 2
lining	thickness 1,2 mm		Permeability coefficient	mg/cmq	> 82,8	≥ 20
Sole	Polyurethane/TPU with low electrical resistance, directly injected in the upper:	5.8.3	Abrasion resistance (lost volume)	mm ³	47	≤ 150
	Outsole: Silver TPU, slipping resistant, abrasion resistant and hydrocarbons resistant.	5.8.4	Flexing resistance (cut increase)	mm	1,5	≤ 4
	Midsole: Black polyurethane, low density, comfortable and anti-shock.	5.8.5	Interlayer bond strength	N/mm	3,5	≥ 3
		6.4.2	Hydrocarbons resistance (ΔV = volume increase)	%	10	≤ 12
	Adherence coefficient of the sole	5.3.5	SRA : ceramic + detergent solution – flat		0,36	≥ 0,32
			SRA : ceramic + detergent solution – heel (contact angle 7°)		0,34	≥ 0,28
			SRB : steel + glycerol – flat		0,26	≥ 0,18
			SRB : steel + glycerol – heel (contact angle 7°)		0,23	≥ 0,13