

Prod. Ref.	13020-000
Safety cat.	S1 P ESD SRC
Range of sizes	36 - 48 (3 - 13)
Weight (Sz. 9)	600 g
Shape	A
Width	11

Description: Black suede leather and **BREATHEX** fabric with 3D texture, highly breathable shoe, **SANY-DRY®** lining, anti-shock, slipping resistant, non metallic **APT Plate** midsole **Zero Perforation**

Plus: High electrical conductivity. Stability of the conductive capability for extended period. Footwear completely free from metal parts. **TOP COMFORT ESD**, footbed made of soft and scented polyurethane, anatomic, holed, with low electric resistance, soft and comfortable. The pattern of the bottom layer guarantees superb impact shock absorption and ease of movement. The upper layer is made of antibacterial textile to prevent from bad odours, to absorb moisture and keep the foot dry. **ANTI TORSION SUPPORT** made of polycarbonate and fibreglass conveniently placed between heel and sole, which provides support and protection of the plantar arch, thus preventing harmful bendings and/or unwilling torsion. Perfumed sole

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

Care and maintenance: Clean after each use and dry off away from direct heat; treat the leather with a suitable shoe-polish. 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 the ground	MΩ	33,2	0.75 - 35
		61340-4-3	Crosswise outsole electric resistance	MΩ	67	< 100
		5.3.2.3	Shock resistant (free high after shock)	mm	15	≥ 14
		5.3.2.4	Compression resistance (free high after compression)	mm	15	≥ 14
		6.2.1	Penetration resistance	N	To 1100 N no perforation	≥ 1100
		6.2.4	Shock absorption	J	32	≥ 20
		5.4.6	Water vapour permeability	mg/cmq h	> 0,8	≥ 0,8
			Permeability coefficient	mg/cmq	> 15	> 15
		5.5.3	Water vapour permeability	mg/cmq h	> 6	≥ 2
Upper	Toe cap: non metallic TOP RETURN toe cap, Extra Large , impact resistant until 200 J and compression resistant until 1500 kg					
		6.2.1	Penetration resistance	N	To 1100 N no perforation	≥ 1100
		6.2.4	Shock absorption	J	32	≥ 20
		5.4.6	Water vapour permeability	mg/cmq h	> 0,8	≥ 0,8
			Permeability coefficient	mg/cmq	> 15	> 15
		5.5.3	Water vapour permeability	mg/cmq h	> 6	≥ 2
			Permeability coefficient	mg/cmq	> 48	≥ 20
		5.5.3	Water vapour permeability	mg/cmq h	> 8,6	≥ 2
			Permeability coefficient	mg/cmq	> 69,2	≥ 20
		5.8.3	Abrasion resistance (lost volume)	mm³	43	≤ 150
Vamp	Thickness 1,2 mm	5.8.4	Flexing resistance (cut increase)	mm	1,5	≤ 4
		5.8.6	Interlayer bond strength	N/mm	> 5	≥ 4
		6.4.2	Hydrocarbons resistance (ΔV = volume increase)	%	+ 0,1	≤ 12
		5.3.5	SRA : ceramic + detergent solution – flat		0,40	≥ 0,32
			SRA : ceramic + detergent solution – heel (contact angle 7°)		0,33	≥ 0,28
Quarter	SANY-DRY®, antibacterial, breathable, abrasion resistant, colour orange					
Lining	Thickness 1,2 mm					
Sole	dual density polyurethane, with low electric resistance, directly injected in the upper:					
Adherence	Outsole: black, high density, slipping resistant, abrasion resistant and hydrocarbons resistant,					
Midsole	black, low density, comfortable and anti-shock					
Adherence	Adherence coefficient of the sole					

SRB : steel + glycerol – flat	0,18	≥ 0,18
SRB : steel + glycerol – heel (contact angle 7°)	0,13	≥ 0,13