



<b>Prod. Ref.</b>	12680-001
<b>Safety cat.</b>	SB E P FO SRC
<b>Range of sizes</b>	39 - 48 (6 - 13)
<b>Weight (sz. 8)</b>	525 g
<b>Shape</b>	A
<b>Width (6)</b>	10
<b>Width (6,5 - 13)</b>	11

**Description:** Black highly breathable textile and **MICROTECH** shoe, **DRYFRESH** 100% polyester fabric lining, anti-shock, slipping resistant, non metallic **APT Plate** midsole **Zero Perforation**

**Plus:** Insole and sole are highly electric resistant. The whole boot has been designed in order not to have any metal parts (**100 % Metal Free**). **EVANIT** footbed, made of EVA and nitrile special compound, with high bearing capacity and variable thickness. Thermoformed, punched and coated with highly breathable fabric. **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. Leather toe cap protection. **Excellent breathability**

**Suggested use:** Given the high electrical resistance, it is possible to use this shoe as a secondary protective equipment in addition to the primary ones (obligatory) for installation of electric plants and all activities where it is important to reduce the risk of lesions for accidental contacts with hot electric wires. **Footwear for electricians**

**Instructions:** This shoe is not a primary protective equipment. It does not prevent the risk of electrical shock when working with dangerous tensions and does not insulate from high voltage. Apart from these footwear the worker must use other electrical shock protective equipment (i.e. gloves and insulating rubber carpets or alternative systems in the work place). The resistance against electric shocks fails in wet environments and when the outer surface of the sole is contaminated by chemical agents (i.e. road salt) or entrapped conductive materials (i.e. nails or metal swarf). Therefore it is necessary to check the footwear carefully. They must be replaced if damaged or too worn. The use of this shoe is absolutely not advisable in explosive stores or any place with risk of fire

**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

## MATERIALS / ACCESSORIES

## SAFETY TECHNICAL SPECIFICATIONS

		Clause EN ISO 20345:2011	Description	Unit	Cofra result	Requirement
<b>Complete shoe</b>	Value of electric resistance higher than that of antistatic footwear		Resistance against electric shocks of the whole footwear	MΩ	> 2000	≥ 1000
	<b>Toe cap:</b> non metallic <b>TOP RETURN</b> toe cap, impact resistant until 200 J and compression resistant until 1500 kg	5.3.2.3	Shock resistance (clearance after shock)	mm	15	≥ 14
		5.3.2.4	Compression resistance (clearance after compression)	mm	14,5	≥ 14
	<b>Anti perforation midsole:</b> in multi-layers highly tensile fabric, penetration resistant, <b>Zero Perforation</b> , with high electrical resistance	6.2.1	Penetration resistance	N	To 1100 N	≥ 1100
<b>Energy absorption system</b>	6.2.4	Shock absorption	J	34	≥ 20	
<b>Upper</b>	Textile highly breathable, colour black	5.4.6	Water vapour permeability	mg/cmq h	> 10	≥ 0,8
			Permeability coefficient	mg/cmq	> 86,2	> 20
<b>Upper</b>	Black breathable <b>MICROTECH</b> thickness 1,6 mm	5.4.6	Water vapour permeability	mg/cmq h	> 1,3	≥ 0,8
			Permeability coefficient	mg/cmq	> 17,8	> 15
<b>Vamp</b>	Textile, breathable, abrasion resistant, colour black	5.5.3	Water vapour permeability	mg/cmq h	> 6,3	≥ 2
			Permeability coefficient	mg/cmq	> 51,1	≥ 20
<b>lining</b>	Thickness 1,2 mm	5.5.3	Water vapour permeability	mg/cmq h	> 9,9	≥ 2
			Permeability coefficient	mg/cmq	> 80	≥ 20
<b>Quarter</b>	<b>DRYFRESH</b> 100% polyester fabric, antibacterial, breathable, abrasion resistant, colour yellow fluo thickness 1,2 mm	5.5.3	Water vapour permeability	mg/cmq h	> 9,9	≥ 2
			Permeability coefficient	mg/cmq	> 80	≥ 20
<b>Sole</b>	Polyurethane/TPU, with high electrical resistance, directly injected in the upper:	5.8.3	Abrasion resistance (lost volume)	mm <sup>3</sup>	66	≤ 150
		5.8.4	Flexing resistance (cut increase)	mm	2	≤ 4
		5.8.6	Interlayer bond strength	N/mm	3,8	≥ 3
		6.4.2	Hydrocarbons resistance (ΔV = volume increase)	%	1	≤ 12
Electric insulation of the footwear bottom in dry condition	CAN/CSA	Test voltage	18.000 Volts	mA	0,25	≤ 1
	Z195-14	Test time	1 minute			

SRA : ceramic + detergent solution – flat	<b>0,40</b>	≥ 0,32
SRA : ceramic + detergent solution – heel (contact angle 7°)	<b>0,31</b>	≥ 0,28
SRB : steel + glycerol – flat	<b>0,19</b>	≥ 0,18
SRB : steel + glycerol – heel (contact angle 7°)	<b>0,16</b>	≥ 0,13