

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

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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 unwilled 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

Complete shoe	Value of electric resistance higher than that of antistatic footwear
Toe cap:	non metallic TOP RETURN toe cap, impact resistant until 200 J and compression resistant until 1500 kg
Anti perforation midsole:	in multi-layers highly tensile fabric, penetration resistant, Zero Perforation , with high electrical resistance
Energy absorption system	
Upper	Textile highly breathable, colour black
Upper	Black breathable MICROTECH thickness 1,6 mm
Vamp	Textile, breathable, abrasion resistant, colour black
lining	Thickness 1,2 mm
Quarter	DRYFRESH 100% polyester fabric, antibacterial, breathable, abrasion resistant, colour yellow fluo
lining	thickness 1,2 mm
Sole	Polyurethane/TPU, with high electrical resistance, directly injected in the upper:
	Outsole: Black TPU, slipping resistant, abrasion resistant and hydrocarbons resistant.
	Midsole: Black polyurethane, low density, comfortable and anti-shock.
	Electric insulation of the footwear bottom in dry condition

SAFETY TECHNICAL SPECIFICATIONS

Clause EN ISO 20345:2011	Description	Unit	Cofra result	Requirement
	Resistance against electric shocks of the whole footwear	MΩ	> 2000	≥ 1000
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
6.2.1	Penetration resistance	N	To 1100 N	≥ 1100
			No Perforation	
6.2.4	Shock absorption	J	34	≥ 20
5.4.6	Water vapour permeability	mg/cmq h	> 10	≥ 0,8
	Permeability coefficient	mg/cmq	> 86,2	> 20
5.4.6	Water vapour permeability	mg/cmq h	> 1,3	≥ 0,8
	Permeability coefficient	mg/cmq	> 17,8	> 15
5.5.3	Water vapour permeability	mg/cmq h	> 6,3	≥ 2
	Permeability coefficient	mg/cmq	> 51,1	≥ 20
5.5.3	Water vapour permeability	mg/cmq h	> 9,9	≥ 2
	Permeability coefficient	mg/cmq	> 80	≥ 20
5.8.3	Abrasion resistance (lost volume)	mm ³	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
CAN/CSA Z195-14	Test voltage 18.000 Volts	mA	0,25	≤ 1
	Test time 1 minute			

Adherence coefficient of the sole

5.3.5

SRA : ceramic + detergent solution – flat

0,40 $\geq 0,32$

SRA : ceramic + detergent solution – heel (contact angle 7°)

0,31 $\geq 0,28$

SRB : steel + glycerol – flat

0,19 $\geq 0,18$

SRB : steel + glycerol – heel (contact angle 7°)

0,16 $\geq 0,13$

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