COFRA®
BORN TO WORK

PRODUCT SHEET

ELECTRICAL BIS

Prod. Ref.	26400-003
Safety cat.	SB E P WRU FO SRC
Range of sizes	40 - 47 (6,5 - 12)
Weight (sz. 8)	620 g
Shape	B
Wide	11

Description: Black water repellent printed leather ankle boot, **Texelle** lining, anti-shock, slipping resistant, non metallic **APT Plate** midsole **Zero Perforation**.

Plus: Footwear completely free from metal parts. Footbed **AIR** made of EVA and fabric, anatomic, holed, antistatic. It guarantees high stability thanks to its different thicknesses in the plantar area. Firm 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. Padded collar. Insole and sole are highly electric resistant.

Suggested use: Given the high electrical resistance, it is possible to use this boot 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.

Instructions: This boot 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 use and let the shoe dry in airy places, away from heat sources; treat the leather with a suitable shoe-polish; it is better to avoid a continuous contact with aggressive acids or with extreme temperature. Avoid a complete immersion in sea and lime water, and in cement dry or 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 Perforationc,** with high electrical resistance
	Energy absorption system: polyurethane low density and heel profile
Upper	Black water repellent printed leather
	Thickness 1,6/1,8 mm
Vamp lining	Textile, breathable, abrasion resistant, colour black
	thickness 1,2 mm
Quarter lining	**Texelle**, breathable, abrasion resistant, colour black
	thickness 1,2 mm
Sole	Dual-density Polyurethane, with high electrical resistance, directly injected in the upper:
	Outsole: black, high density, slipping resistant, abrasion
	resistant and hydrocarbons resistant,
	Midsole: black, low density, comfortable and anti-shock
	Electric insulation of the footwear bottom in dry condition
	Adherence coefficient of the sole

SAFETY TECHNICAL SPECIFICATIONS

Parag. 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	**16**	⬅ 14
5.3.2.4	Compression resistance (clearance after compression)	mm	**15,5**	⬅ 14
6.2.1	Penetration resistance	N	**To 1100 N no perforation**	⬅ 1100
6.2.4	Shock absorption	J	**> 33**	⬅ 20
5.4.6	Water vapour permeability	mg/cmq h	**> 2,4**	⬅ 0,8
	Permeability coefficient	mg/cmq	**> 26,3**	> 15
6.3.1	Water resistance	minutes	**> 60**	> 60
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	**> 6,8**	⬅ 2
	Permeability coefficient	mg/cmq	**> 55,4**	⬅ 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	**> 5**	⬅ 4
6.4.2	Hydrocarbons resistance (▼ = volume increase)	%	**+ 0,5**	↑ 12
CAN/CSA Z195-02	Test voltage 18.000 Volts Test time 1 minute	mA	**0,250**	↑1
5.3.5	SRA : ceramic + detergent solution – flat		**0,43**	⬅ 0,32

Made by Technical Dept.

SRA : ceramic + detergent solution – heel (contact angle 7°)	**0,42**	◄ 0,28
SRB : steel + glycerol – flat	**0,21**	◄ 0,18
SRB : steel + glycerol – heel (contact angle 7°)	**0,18**	◄ 0,13