PRODUCT SHEET

SATURN ESD S3 SRC

Prod. Ref.	31511-000
Safety cat.	S3 ESD SRC
Range of sizes	39 - 48 (6 - 13)
Weight (sz. 8)	425 g
Shape	A
Width (6)	10,5
Width (6,5 - 13)	11

Description: Black/white **TECHSHELL**, innovative, very tough, abrasion resistant, water repellent and breathable fabric shoe, **SANY-DRY®** lining, anti-shock, slipping resistant, non-woven fabric puncture resistant midsole **PEP Plate** - **Zero Perforation**

Plus: High electrical conductibility. Stability of the conductive capability for extended period. **METAL FREE**. Sole made of **XL EXTRALIGHT®**: is a **super light, flexible and resistant** expanded material. Low density, excellent physical-mechanical properties, **soft touch**. It does not absorb liquids and external chemical agents (acids/basic agents) and does not allow the proliferation of bacteria; it has an excellent resistance against atmospheric agents especially at low temperatures. Excellent resistance to water, UV rays, chlorine and to salt so that it is resistant to ageing and keeps the colour unchanged over time. **Its lightness** (weight 3 times lower than those materials having the same mechanical properties) **has allowed to produce a safety footwear with very reduced weight (about 420 g)**. **The high thickness of the sole maximizes the cushioning effect, by increasing comfort**. **LIGHT FOAM ESD** footbed, with low electrical resistance, made of extremely soft and comfortable polyurethane foam. Punched, its anatomical shape provides support to the plantar arch; covered with abrasion resistant fabric, it absorbs moisture and keeps always the foot dry; it guarantees excellent comfort and shock absorption

Suggested uses: this line is recommended for: logistics, service industry, shipping, light industry, microelectronics industry, food industry. Recommendable in **ATEX** environments **. It is not recommended for heavy industry and construction**

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

		Clause EN ISO 20345:2011	Description	Unit	Cofra result	Requirement
Calzatura completa	**Capacità ESD**	CEI EN				
		61340-5-1	Resistenza elettrica verso terra della calzatura	MΩ	**21,3**	< 1000
		61340-5-1	Resistenza elettrica trasversale	MΩ	**48,2**	≤ 100
		61340-5-1	Misurazione del “Body Voltage”	V	**14,19**	< 100
	Toe cap: non metallic **FIBERGLASS** toe cap, impact resistant until 200 J	5.3.2.3	Shock resistance (clearance after shock)	mm	**14**	≥ 14
	and compression resistant until 1500 kg	5.3.2.4	Compression resistance (clearance after compression)	mm	**19**	≥ 14
	Puncture resistant fabric: conductive, almost entirely recycled, made of special non-woven fibers, penetration resistant, **Zero Perforation,** with low electric resistance	6.2.1	Penetration resistance	N	**To 1100 N** **No Perforation**	≥ 1100
	Energy absorption system	6.2.4	Shock absorption	J	**39**	≥ 20
Upper	**TECHSHELL**, innovative, very tough, abrasion resistant, water repellent and breathable fabric, colour black/white	5.4.6	Water vapour permeability	mg/cmq h	**> 5**	≥ 0,8
			Permeability coefficient	mg/cmq	**> 41,5**	> 15
		6.3.1	Water absorption		**13,37%**	≤ 30%
			Water penetration		**0,0 g**	≤ 0,2 g

SAFETY TECHNICAL SPECIFICATIONS

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		5.4.3	**Tear resistance**	**N**	**233**	≥ 60
			Abrasion resistance	**cicli**	**> 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 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	EVA directly applied on the upper, colour black, slipping resistant, abrasion resistant and hydrocarbons resistant, comfortable and anti-shock	5.8.3	Abrasion resistance (lost volume)	mm^3	**247**	≤ 250
		5.8.4	Flexing resistance (cut increase)	mm	**2,4**	≤ 4
		6.4.2	Hydrocarbons resistance (ΔV = volume increase)	%	**7**	≤ 12
	Adherence coefficient of the sole	5.3.5	SRA : ceramic + detergent solution – flat		**0,46**	≥ 0,32
			SRA : ceramic + detergent solution – heel (contact angle 7°)		**0,43**	≥ 0,28
			SRB : steel + glycerol – flat		**0,31**	≥ 0,18
			SRB : steel + glycerol – heel (contact angle 7°)		**0,21**	≥ 0,13