## VOLT1



\* Tested and approved at a voltage of 18000V at 60 Hz for one minute a coording to ASTM F2413-18 American standard.

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#### **NORMS** EN ISO 20345:2011 & ASTM F2413-18

**SB** - Shoe with basic requirements - footwear with toe cap - resistant to 200 Joules

P - Penetration resistance sole

SRC - Slip resistance against ceramic, Sodium lauryl sulfate, steel and glicerin

FO - Resistance to fuel oil of the outsole

E - Heel energy absorption

**WR** - Water resistance

**WRU** - Water penetration resistant uppers

HRO - Resistance to hot contact of the outsole

#### **ADVANTAGES**

Protects against high voltages | Waterproof | Breathable | Non Metallic | Comfortable | Excellent anti-slip features | Sole resists to high temperatures

#### WORKING ENVIRONMENT

ELECTRICIANS | RAILWAY WORKERS | POWER DISTRIBUTION WORKERS ENVIRONMENTS WITH HIGH RISK OF ELECTRIC SHOCK



# VOLT1



 $^{\ast}$  Tested and approved at a voltage of 18000V at 60 Hz for one minute a coording to  $ASTM\,F2413-18$  American standard.





### **TECHNICAL INFORMATION**

FOOTWEAR MATERIALS	NORM	DESCRIPTION	UNIT	FTG RESULT	EN ISO 20345 REQ.
<b>TOE CAP</b> Non-metallic and ultra-light composite toe cap that protects the toes against pressure up to 200 joules.	5.3.2.3 5.3.2.4	IMPACT RESISTANCE COMPRESSION RESISTANCE	mm mm	17 15,0	>=15 >=13,5
UPPER Soft treated Nubuck Leather, with excellent transpiration characteristics that significantly increases the level of comfort.	5.4.6	WATER VAPOUR PERMEABILITY	mg/cm <sup>2</sup>	9,7	>=0,8
Excellent resistance and durability.	5.4.3	COEFFICIENT OF PERMEABILITY TEARING STRENGTH	mg/cm <sup>2</sup>	83,4 321	>=15 >=120
	6.3	PERMEABILITY & WATER ABSORPTION (TRANSMITED WATER AFTER 60 MIN.)	9	0	max. 0,2
		PERMEABILITY & WATER ABSORPTION (ABSORBED WATER AFTER 60 MIN.)	%	4,5	max. 30
<b>VAMP LINING</b> SYMPATEX - Waterproof membrane which absorbs the water vapor and removes it through the lining to the outside.	5.5.3	WATER VAPOUR PERMEABILITY	mg/cm <sup>2</sup>	4,3	>=2
		COEFFICIENT OF PERMEABILITY	mg/cm <sup>2</sup>	35	>=20
	5.5.1 5.5.2	TEARING STRENGTH ABRASION RESISTANCE (DRY) ABRASION RESISTANCE (WET)	N cycles cycles	21 no rupture no rupture	>=15 51.200 25.600
<b>COLLAR LINNING</b> POROMAX - Removes hot moist air and facilitates uniform temperature inside the shoe.	5.5.1 5.5.2	ABRASION RESISTANCE (DRY) ABRASION RESISTANCE (WET)	cycles cycles	no rupture no rupture	25.600 12.800
<b>ELECTRICAL RESISTANCE (EH)</b> The shoes capacity to withstand high voltages.	ASTM F2413-18	ELECTRIC HAZARD	V	withstands	18000 V at 60 Hz for one minute
<b>INSOLE</b> QFLEX non-metallic and anti static.	6.2.1.1	PERFORATION RESISTANCE	N	no perforation	>=1.100
<b>SHOCK ABSORPTION</b> The shoes capacity to absorb the walking impact.	6.2.4	SHOCK ABSORPTION	J	81 / 84	min. 20
<b>SOLE</b> Extremely soft and comfortable PU midsole, which ensures excellent return impact energy, comfort for prolonged use, in combination with a special insulating Nitrile Rubber outsole against electrostatic discharges, which provides great grip and protection against high temperatures.	5.8.2 5.8.3 5.8.4 6.4.1 5.11	TEARING STRENGTH ABRASION RESISTANCE BENDING RESISTANCE HEAT RESISTANCE ON CERAMIC FLOOR WITH WATER AND DETERGENT SLIP RESISTANCE ON STEEL FLOOR WITH GLYCERINE	N/mm mm³ mm °C flat heel flat	15 140 0,3 no damage 0,51 0,40 0,23 0,15	>= 8 max. 150 max. 4 soil heating until 300°C up to 1 min. >= 0,32 >= 0,28 >= 0,18 >= 0,13

**SHOE WEIGHT (SIZE 42):** 580g

