

WATT 6B15.20

SB P SRC FO E WR WRU HRO *

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



LINNING SYMPATEX

Waterproof membrane which absorbs the water vapor and removes it through the lining to the outside.

INSOCK INSULATING PU

Specially developed for those who work with electricity.

INSOLE Q-FLEX

Composite anti-perforation insole, non-metallic and anti-static.

INSOLE CORK

Insole made of cork which offers an insulating protection.

MATERIAL NUBUCK LEATHER

Soft treated, with excellent transpiration characteristics that significantly increases the level of comfort. Excellent resistance and durability.

TOE CAP CARBONLIGHT

Non-metallic and ultra-light composite toe cap that protects the toes against pressure up to 200 joules.

OTHER TOE REINFORCEMENT

Extra protection and resistance.

NITRILE RUBBER

SOLE FUSION - Width: 11 cm

Extremely soft and comfortable PU midsole in combination with a special insulating Nitrile Rubber outsole against electrostatic discharges.



COMPOSITE TOE CAP



COMPOSITE INSOLE



WATERPROOF



METAL FREE



ELECTRICAL HAZARD PROTECTION

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 glycerin

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

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* **PROTECTS AGAINST**

HIGH VOLTAGES

UP TO 18000 V AT 60 HZ

according to **ASTM F2413-18** American standard

TECHNICAL INFORMATION

FOOTWEAR MATERIALS	NORM	DESCRIPTION	UNIT	FTG RESULT	EN ISO 20345 REQUIREMENT
TOE CAP Non-metallic and ultra-light composite toe cap that protects the toes against pressure up to 200 joules.	5.3.2.3	IMPACT RESISTANCE	mm	17	> = 15
	5.3.2.4	COMPRESSION RESISTANCE	mm	16,0	> = 13,5
UPPER Soft treated Nubuck Leather, with excellent transpiration characteristics that significantly increases the level of comfort. Excellent resistance and durability.	5.4.6	WATER VAPOUR PERMEABILITY	mg/cm ²	9,7	> = 0,8
		COEFFICIENT OF PERMEABILITY	mg/cm ²	83,4	> = 15
	5.4.3	TEARING STRENGTH	N	321	> = 120
	6.3	PERMEABILITY & WATER ABSORPTION (TRANSMITED WATER AFTER 60 MIN.)	g	0	max. 0.2
UPPER (HEEL) Treated leather with excellent transpiration features and flexibility.	5.4.6	WATER VAPOUR PERMEABILITY	mg/cm ²	9,1	> = 0,8
		COEFFICIENT OF PERMEABILITY	mg/cm ²	79,4	> = 15
	5.4.3	TEARING STRENGTH	N	248	> = 120
	6.3	PERMEABILITY & WATER ABSORPTION (TRANSMITED WATER AFTER 60 MIN.)	g	0	max. 0.2
UPPER (COLLAR) High performance textile - Cordura	5.4.3	PERMEABILITY & WATER ABSORPTION (ABSORBED WATER AFTER 60 MIN.)	%	4,5	max. 30
	5.4.6	WATER VAPOUR PERMEABILITY	mg/cm ²	9,1	> = 0,8
		COEFFICIENT OF PERMEABILITY	mg/cm ²	79,4	> = 15
	5.4.3	TEARING STRENGTH	N	248	> = 120
VAMP LINING SYMPATEX - Waterproof membrane which absorbs the water vapor and removes it through the lining to the outside.	6.3	PERMEABILITY & WATER ABSORPTION (TRANSMITED WATER AFTER 60 MIN.)	g	0	max. 0.2
		PERMEABILITY & WATER ABSORPTION (ABSORBED WATER AFTER 60 MIN.)	%	4,7	max. 30
	5.5.2	ABRASION RESISTANCE (DRY)	cycles	no rupture	25.600
		ABRASION RESISTANCE (WET)	cycles	no rupture	12.800
COLLAR LINING POROMAX - Removes hot moist air and facilitates uniform temperature inside the shoe.	5.5.3	WATER VAPOUR PERMEABILITY	mg/cm ²	4,3	> = 2
		COEFFICIENT OF PERMEABILITY	mg/cm ²	35	> = 20
	5.5.1	TEARING STRENGTH	N	21	> = 15
	5.5.2	ABRASION RESISTANCE (DRY)	cycles	no rupture	51.200
ELECTRICAL RESISTANCE (EH) The shoes capacity to withstand high voltages.		ABRASION RESISTANCE (WET)	cycles	no rupture	25.600
	5.5.3	WATER VAPOUR PERMEABILITY	mg/cm ²	13	> = 2
		COEFFICIENT OF PERMEABILITY	mg/cm ²	256	> = 20
	5.5.1	TEARING STRENGTH	N	32	> = 15
SOLE 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.	5.5.2	ABRASION RESISTANCE (DRY)	cycles	no rupture	25.600
		ABRASION RESISTANCE (WET)	cycles	no rupture	12.800
INSOLE Composite anti-perforation insole, non-metallic and anti-static.	6.2.4	SHOCK ABSORPTION	J	81 / 84	min. 20
INSOCK Insulating PU - Specially developed for those who work with electricity.	ASTM F2413-18	ELECTRIC HAZARD	V	withstands	18000 V at 60 Hz for one minute
	6.2.1.1	PERFORATION RESISTANCE	N	no perforation	> = 1,100
	5.8.2	TEARING STRENGTH	N/mm	18,7	> = 8
	5.8.3	ABRASION RESISTANCE	mm ³	140	max. 150
	5.8.4	BENDING RESISTANCE	mm	0,3	max. 4
	6.4.1	HEAT RESISTANCE	°C	no damage	soil heating until 300°C up to 1 min.
SHOCK ABSORPTION The shoes capacity to absorb the walking impact.	5.11	SLIP RESISTANCE ON CERAMIC FLOOR WITH WATER AND DETERGENT	flat	0,51	> = 0,32
		SLIP RESISTANCE ON STEEL FLOOR WITH GLYCERINE	heel	0,40	> = 0,28
			flat	0,26	> = 0,18
			heel	0,17	> = 0,13