



Prod. Ref.	80640-000
Safety cat.	S3 WR CI HRO SRC
Range of sizes	39 - 47
Weight (sz. 42)	940 g
Shape	C
Width	11

Description: Black water repellent grain leather ranger, **WIN THERM**[®] lining, antistatic, anti-shock, slipping resistant, non metallic **APT Plate** midsole **Zero Perforation**.

Plus: THINSULATE[®] **B200** cold protection. Full **SOFT-BED** footbed, made of soft and scented polyurethane, antistatic, anatomic, holed, soft and comfortable. The upper layer absorb moisture and keep the foot dry. Cold and heat insulation. Arch 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. Outsole resistant to +300°C (1 minute contact). Padded collar.
Sealed stitchings.

Suggested uses: Engineering jobs, building industry, maintenance jobs.

Care and maintenance: Clean after each use and dry off away from direct heat; treat the leather with a suitable shoe-polish. Avoid contact with aggressive chemicals or extreme temperature. Avoid immersion in sea water, lime water or cement mixed with water.

MATERIALS / ACCESSORIES

SAFETY TECHNICAL SPECIFICATIONS

		Clause EN ISO 20345:2011	Description	Unit	Cofra result	requirement
Whole footwear	Water resistance	5.15.1	Water resistance (area of water penetration after 1000 paces in a surface flooded with water)	cm ²	≤ 3	≤ 3
Complete shoe	Toe cap: non metallic TOP RETURN toe cap, impact resistant until 200 J and compression resistant until 1500 kg	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
	Anti perforation midsole: in multi-layers highly tensile fabric, penetration resistant, Zero Perforation	6.2.1	Penetration resistance	N	To 1100 N	≥ 1100
					No Perforation	
	Antistatic shoe: the bottom is fit for the dissipation of electrostatic charges	6.2.2.2	Electric resistance			
			- wet	MΩ	45	≥ 0.1
			- dry	MΩ	880	≤ 1000
	Cold insulation	6.2.3.2	Cold insulation (temp. decrease after 30' C at -17 °C)	°C	6,5	≤ 10
	Energy absorption system: polyurethane low density and heel profile	6.2.4	Shock absorption	J	> 32	≥ 20
Upper	Black water repellent grain leather thickness 1,6/1,8 mm	5.4.6	Water vapour permeability	mg/cmq h	> 0,8	≥ 0,8
			Permeability coefficient	mg/cmq	> 15	> 15
		6.3.1	Water absorption		18%	≤ 30%
			Water penetration		0,0 g	≤ 0,2 g
Vamp	Felt, breathable, colour dark grey thickness 1,2 mm	5.5.3	Water vapour permeability	mg/cmq h	> 4,7	≥ 2
			Permeability coefficient	mg/cmq	> 40,6	≥ 20
Quarter	WIN THERM [®] , breathable, antibacterial, abrasion resistant, colour black thickness 1,2 mm	5.5.3	Water vapour permeability	mg/cmq h	> 7,4	≥ 2
			Permeability coefficient	mg/cmq	> 59,5	≥ 20
Sole	PU/Nitrile rubber , antistatic, resistant to high temperatures, directly injected in the upper:	5.8.3	Abrasion resistance (lost volume)	mm ³	105	≤ 150
		5.8.4	Flexing resistance (cut increase)	mm	1,5	≤ 4
		5.8.6	Interlayer bond strength	N/m	> 5	≥ 4
		6.4.4	Hot resistance (300 °C)	----	any melting	any melting
		6.4.2	Hydrocarbons resistance (ΔV = volume increase)	%	+ 1,6	≤ 12
		5.3.5	SRA : ceramic + detergent solution – flat		0,54	≥ 0,32
			Outsole: black nitrile rubber, slipping resistant, abrasion resistant, hydrocarbons resistant and heat resistant.			
	Midsole: black PU, low density, comfortable and anti-shock.					
	Adherence coefficient of the sole					

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SRA : ceramic + detergent solution – heel (contact angle 7°)	0,50	≥ 0,28
SRB : steel + glycerol – flat	0,23	≥ 0,18
SRB : steel + glycerol – heel (contact angle 7°)	0,18	≥ 0,13

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