



Prod. Ref.	13650-000
Safety cat.	S3 CI HRO SRC
Range of sizes	39 - 47 (6 - 12)
Weight (sz. 9)	890 g
Shape	C
Width	12

Description: Black water repellent leather ranger, **TEXELLE** lining, antistatic, anti-shock, slipping resistant, non metallic **APT Plate** midsole **Zero Perforation**

Plus: **COLD BARRIER** anatomic, antistatic and scented footbed, insulating against low temperatures. Fleece lined. The thermal comfort inside the footwear is granted thanks to the specials PU compound devised to give high insulation. Sole **COLD DEFENDER** PU/Nitrile rubber resistant to low temperatures. **Cold Defender PU** is a special PU compound which guarantees higher performances than the ordinary PU for mechanical resistance to low temperatures and thermal insulation and it resist under extreme temperatures up to -25°C. The rubber outsole design has been devised to improve the slip resistance and enhance the comfort even on frozen and rambling surfaces. **ANTI TORSION 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 and/or unwilling torsion. Internal side zip

Suggested uses: Engineering jobs, maintenance jobs, buildings, industries.

Care and maintenance: 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	Description	Unit	Cofra result	requirement	
Complete shoe	Toe cap: non metallic fiber glass toe cap, impact resistant until 200 J and compression resistant until 1500 kg	5.3.2.3	Shock resistance (clearance after shock)	mm	14	≥ 14	
		5.3.2.4	Compression resistance (clearance after compression)	mm	16	≥ 14	
	Anti perforation midsole: in multi-layers highly tensile fabric, penetration resistant, Zero Perforation	6.2.1	Penetration resistance	N	To 1100 N No Perforation	≥ 1100	
	Antistatic shoe: the bottom is fit for the dissipation of electrostatic charges	6.2.2.2	Electric resistance	- wet	MΩ	743	≥ 0.1
				- dry	MΩ	871	≤ 1000
	Cold insulation	6.2.3.2	Cold insulation (temp. decrease after 30' C at -17 °C)	°C	7	≤ 10	
	Energy absorption system	6.2.4	Shock absorption	J	38	≥ 20	
	Upper	Black water repellent leather thickness 1,8/2,0 mm	5.4.6	Water vapour permeability	mg/cmq h	> 1,2	≥ 0,8
				Permeability coefficient	mg/cmq	> 17,3	> 15
			6.3.1	Water resistance	minutes	18% 0,0 g	> 60
Vamp	Felt, breathable, colour grey	5.5.3	Water vapour permeability	mg/cmq h	> 4,7	≥ 2	
				Permeability coefficient	mg/cmq	> 40,6	≥ 20
lining	Thickness 1,2 mm	5.5.3	Water vapour permeability	mg/cmq h	> 6,6	≥ 2	
				Permeability coefficient	mg/cmq	> 53	≥ 20
Lining	TEXELLE , breathable, abrasion resistant, colour black thickness 1,2 mm	5.5.3	Water vapour permeability	mg/cmq h	> 6,6	≥ 2	
				Permeability coefficient	mg/cmq	> 53	≥ 20
Sole	COLD DEFENDER PU /Nitrile rubber, antistatic, resistant to low temperatures, directly injected in the upper:	5.8.3	Abrasion resistance (lost volume)	mm ³	136	≤ 150	
		5.8.4	Flexing resistance (cut increase)	mm	1	≤ 4	
		5.8.6	Interlayer bond strength	N/m	> 5	≥ 4	
	Outsole: black nitrile rubber, slipping resistant, abrasion resistant, hydrocarbons	5.8.6	Interlayer bond strength	N/m	> 5	≥ 4	

resistant and heat resistant.

Midsole: **Cold Defender PU** resistant to -25°C, colour black

Adherence coefficient of the sole

6.4.4	Hot resistance (300 °C)	----	any melting	any melting
6.4.2	Hydrocarbons resistance (ΔV = volume increase)	%	+ 3,6	≤ 12
5.3.5	SRA : ceramic + detergent solution – flat		0,43	$\geq 0,32$
	SRA : ceramic + detergent solution – heel (contact angle 7°)		0,38	$\geq 0,28$
	SRB : steel + glycerol – flat		0,36	$\geq 0,18$
	SRB : steel + glycerol – heel (contact angle 7°)		0,18	$\geq 0,13$