

Prod. Ref.	13560-000
Safety cat.	S3 WR CI HRO SRC
Range of sizes	39 - 47 (6 - 12)
Weight (sz. 9)	880 g
Shape	C
Wide	12

Description: Black water repellent full grain leather resistant to low temperatures rigger boot, ecological fur lining, antistatic, anti-shock, slipping resistant, non metallic **APT Plate** midsole **Zero Perforation**.

Plus: **THINSULATE®B200** cold insulation. **COLD BARRIER** anatomic and scented footbed, insulating against low temperatures. The thermal comfort inside the footwear is granted thanks to the specials PU compound devised to give high insulation, covered with warm fabric. The leather used for these footwear is subjected to a treatment which makes them flexible and resistant to low temperatures even in the flexing areas to prevent cracks and stiffening. Sole **COLD DEFENDER PU**/Nitrile rubber resistant to low temperatures. **COLD BARRIER 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. Internal side zip. **Sealed stitchings**.

Suggested uses: Footwear for cold temperature.

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

Complete shoe	Water resistance
	Toe cap: non metallic extra large TOP RETURN toe cap, impact resistant until 200 J and compression resistant until 1500 kg
	Anti perforation midsole: in multi-layers highly tensile fabric, penetration resistant, Zero Perforation .

Antistatic shoe: the bottom is fit for the dissipation of electrostatic charges

Cold insulation

Energy absorption system: polyurethane low density and heel profile

Upper Black water repellent grain leather, resistant to low temperatures thickness 1,8/2,0 mm

Quarter lining Ecological fur, breathable, abrasion resistant, colour grey thickness 1,2 mm

Sole **COLD DEFENDER PU** - Nitrile rubber, antistatic, resistant to low temperatures, directly injected in the upper:

Outsole: black Nitrile rubber, slipping resistant, abrasion resistant, hydrocarbons

SAFETY TECHNICAL SPECIFICATIONS

	Clause EN ISO 20344 :2004	Description	Unit	Cofra result	Requirement
Complete shoe	5.15.1	Water resistance (area of water penetration after 100 paces in a surface flooded with water)	cm ²	≤ 3	≤ 3
	5.3.2.3	Shock resistance (clearance after shock)	mm	14	≥ 14
	5.3.2.4	Compression resistance (clearance after compression)	mm	16	≥ 14
	6.2.1	Penetration resistance	N	To 1100 N no perforation	≥ 1100
	6.2.2.2	Electric resistance - wet - dry	MΩ	742	≥ 0,1
	6.2.3.2	Cold insulation (temp. decrease after 30' C at -17 °C)	°C	10	≤ 10
	6.2.4	Shock absorption	J	> 39,5	≥ 20
Upper	5.4.6	Water vapour permeability Permeability coefficient	mg/cm ² h	> 3,8	≥ 0,8
	6.3.1	Water resistance	minutes	> 60	> 60
	5.5.3	Water vapour permeability Permeability coefficient	mg/cm ² h	> 5,9	≥ 2
Quarter lining	5.8.3	Abrasion resistance (lost volume)	mm ³	132	≤ 150
	5.8.4	Flexing resistance (cut increase)	mm	1	≤ 4
Sole	5.8.6	Interlayer bond strength	N/m	> 5	≥ 4

resistant, and hot resistant.	6.4.4	Hot resistance (300 °C)	---	any melting	any melting
Midsole: Cold Defender PU resistant to -25°C, colour black	6.4.5	Hydrocarbons resistance (ΔV = volume increase)	%	+ 3,6	\leq + 12
Adherence coefficient of the sole	5.3.5	SRA : ceramic + detergent solution – flat		0,45	\geq 0,32
		SRA : ceramic + detergent solution – heel (contact angle 7°)		0,40	\geq 0,28
		SRB : steel + glycerol – flat		0,20	\geq 0,18
		SRB : steel + glycerol – heel (contact angle 7°)		0,14	\geq 0,13