COFRA®
BORN TO WORK

PRODUCT SHEET

HAMMER S3S CI FO SR

Prod. Ref.	PE190-000
Safety cat.	S3S CI FO SR
Range of sizes	38 - 48 (5 - 13)
Weight (sz. 8)	540 g
Shape	A
Width	11

Description: Black water repellent nubuck shoe, **SANY-DRY®** lining, antistatic, anti-shock, slipping resistant, with non metallic **APT PLUS** midsole - type **PS** with Ø 3,0 mm nail.

Plus: LIGHT FOAM footbed, made of extremely soft and comfortable polyurethane foam. Punched, antistatic, its anatomical shape provides support to the plantar arch; covered with abrasion resistant fabric, it absorbs moisture and keeps always the foot dry; it guarantees excellent comfort and shock absorption.

Suggested uses: Construction, maintenance, industries

Care and maintenance: Clean after each use and dry off away from direct heat. Avoid contact with aggressive chemicals or extreme temperature. Avoid immersion in sea water, lime water or cement mixed with water

MATERIALS / ACCESSORIES

		Clause EN ISO 20345:2022
Complete shoe	**Toe cap:** **ALUMINIUM** made, ultra light, impact resistant until 200 J	5.3.2.6
	and compression resistant until 1500 kg	5.3.2.7
	Anti perforation midsole: in multi-layers highly tensile fabric, penetration resistant, **Zero Perforation**	6.2.1.1.4
	Antistatic shoe: the bottom is fit for the dissipation of electrostatic charges	6.2.2.2
	Cold insulation	6.2.3.2
	Energy absorption system	6.2.4
Upper	Black water repellent nubuck	5.4.6
	thickness 1,6/1,8 mm	
		6.3
Vamp	Textile, breathable, abrasion resistant, colour black	5.5.4
lining	Thickness 1,2 mm	
Quarter	**SANY-DRY®**, breathable, abrasion resistant, colour black	5.5.4
lining	thickness 1,2 mm	
Sole	Antistatic dual-density polyurethane directly injected in the upper:	5.8.4
	Outsole: black, high density, slipping resistant, abrasion resistant and hydrocarbons resistant,	5.8.5
	Midsole: black, low density, comfortable and anti-shock	5.8.7
		6.4.2
	Adherence coefficient of the sole (Slip resistance)	5.3.5.2
		6.2.10

SAFETY TECHNICAL SPECIFICATIONS

Description	Unit	Cofra result	Requirement
Shock resistance (clearance after shock)	mm	**16**	≥ 14
Compression resistance (clearance after compression)	mm	**18**	≥ 14
Penetration resistance	N	**1612**	≥ 1100
(**PS** requirement with Ø 3,0 mm nail)			
Electric resistance			
- wet	MΩ	**12,35**	≥ 0.1
- dry	MΩ	**77**	≤ 1000
Cold insulation (temp. decrease after 30' C at -17 °C)	°C	**5,5**	≤ 10
Shock absorption	J	**30**	≥ 20
Water vapour permeability	mg/cmq h	**> 2,7**	≥ 0,8
Permeability coefficient	mg/cmq	**> 22,2**	≥ 15
Water absorption		**5,6%**	≤ 30%
Water penetration		**0,0 g**	≤ 0,2 g
Water vapour permeability	mg/cmq h	**> 4,1**	≥ 2
Permeability coefficient	mg/cmq	**> 47,2**	≥ 20
Water vapour permeability	mg/cmq h	**> 9,4**	≥ 2
Permeability coefficient	mg/cmq	**> 76,4**	≥ 20
Abrasion resistance (lost volume)	mm^3	**48**	≤ 150
Flexing resistance (cut increase)	mm	**0**	≤ 4
Interlayer bond strength	N/mm	**3,4**	≥ 3
Hydrocarbons resistance (ΔV = volume increase)	%	**1,6**	≤ 12
ceramic + detergent solution – forepart (contact angle 7°)		**0,41**	≥ 0,36
ceramic + detergent solution – heel (contact angle 7°)		**0,35**	≥ 0,31
SR : ceramic + glycerol – forepart (contact angle 7°)		**0,37**	≥ 0,22
SR : ceramic + glycerol – heel (contact angle 7°)		**0,42**	≥ 0,19