COFRA®
BORN TO WORK

PRODUCT SHEET

FRIBURG S7S M

Prod. Ref.	37140-N00
Safety cat.	S7S M HI CI HRO LG SC FO SR
Range of sizes	36 - 48 (3 - 13)
Weight (sz. 8)	760 g
Shape	B
Widht (3 - 6)	10
Widht (6,5 - 13)	11

Description: Black water repellent full grain leather ankle boot, **SANY-DRY®** lining, antistatic, anti-shock, slipping resistant, non metallic **APT PLUS** midsole **Zero Perforation**

Plus: **Internal metatarsal protection - 100 J**, made of expanded, closed cell, strong material, able to absorb and equally distribute the impact energy. Extremely comfortable, light and flexible, thanks to the design with channels, it perfectly fits the foot's shape. No added bulk affecting the look of the footwear. No fatigue for the user! **FOOT-PAD** footbed, extremely soft and comfortable footbed. Thanks to the very low density polyurethane, the footbed is self-molding granting a right distribution of the body weight and providing an immediate feeling of comfort. High shock absorption is provided from highly resilient material and a perfect cushion in the central area of the heel. **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 unwilled torsion. Outsole resistant to +300°C (1 minute contact). Footwear equipped with a particularly abrasion-resistant material on the toe area (**SC**). Sole design especially conceived for safer standing on ladder rungs (**LG**). **Abrasion resistant TPU toe cap protection**

Suggested uses: Footwear for mechanical industry

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	**Metatarsal protection**	6.2.6.2
	Water resistance	5.15.1
	Toe cap: non metallic **FIBERGLASS** toe cap, 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
	Antistatic shoe: the bottom is fit for the dissipation of electrostatic charges	6.2.2.2
	Heat insulation	6.2.3.1
	Cold insulation	6.2.3.2
	Energy absorption system	6.2.4
Upper	Black water repellent full grain leather	5.4.6
	thickness 1,8/2,0 mm	
		6.3
Vamp	Felt, breathable, colour dark grey	5.5.4
lining	thickness 1,2 mm	
Quarter	**SANY-DRY®**, breathable, abrasion resistant, colour black	5.5.4
lining	thickness 1,2 mm	

SAFETY TECHNICAL SPECIFICATIONS

Description	Unit	Cofra result	Requirement
Shock resistant (free high after shock)	mm	**44,5**	≥ 40
Water resistance (area of water penetration after 1000 paces in a surface flooded with water)	cm^2	**≤ 3**	≤ 3
Shock resistance (clearance after shock)	mm	**15**	≥ 14
Compression resistance (clearance after compression)	mm	**16**	≥ 14
Penetration resistance	N	**To 1100 N**	≥ 1100
(**PS** requirement with Ø 3,0 mm nail)		**No perforation**	
Electric resistance			
- wet	MΩ	**93.41**	≥ 0.1
- dry	MΩ	**298**	≤ 1000
Heat insulation (temp. increase after 30' at **150** °C)	°C	**10**	≤ 22
Cold insulation (temp. decrease after 30' C at -17 °C)	°C	**3,5**	≤ 10
Shock absorption	J	**30**	≥ 20
Water vapour permeability	mg/cmq h	**> 2,1**	≥ 0,8
Permeability coefficient	mg/cmq	**> 22,1**	≥ 15
Water absorption		**2,2%**	≤ 30%
Water penetration		**0,0 g**	≤ 0,2 g
Water vapour permeability	mg/cmq h	**> 5**	≥ 2
Permeability coefficient	mg/cmq	**> 41,9**	≥ 20
Water vapour permeability	mg/cmq h	**> 64,4**	≥ 2
Permeability coefficient	mg/cmq	**> 515,4**	≥ 20

Made by Technical Dept.

Sole	Polyurethane/Nitrile rubber, antistatic, directly injected in the upper:	5.8.4	Abrasion resistance (lost volume)	mm^3	**112**	≤ 150
	Outsole: black nitrile rubber, slipping resistant, abrasion resistant, hydrocarbons resistant and heat resistant.	5.8.5	Flexing resistance (cut increase)	mm	**2**	≤ 4
	Midsole: dark grey polyurethane low density, comfortable and anti-shock	5.8.7	Interlayer bond strength	N/m	**4,2**	≥ 3
		6.4.4	Hot resistance (300 °C)	-----	**any melting**	any melting
		6.4.2	Hydrocarbons resistance (ΔV = volume increase)	%	**10**	≤ 12
	Adherence coefficient of the sole (Slip resistance)	5.3.5.2	ceramic + detergent solution – forepart (contact angle 7°)		**0,40**	≥ 0,36
			ceramic + detergent solution – heel (contact angle 7°)		**0,35**	≥ 0,31
		6.2.10	SR : ceramic + glycerol – forepart (contact angle 7°)		**0,27**	≥ 0,22
			SR : ceramic + glycerol – heel (contact angle 7°)		**0,32**	≥ 0,19