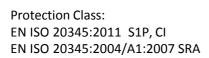
Product : Safety Shoe Ref. No. : SHR 1134

Doc. No.	SHR/RND/HNK/01
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Revision	00
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Sr. No.	Clause	Description	Specification
	1 Design	Construction	Direct Moulded PU construction for enhanced strength
		Type of Design	Design 'C'
		Seat Region	Closed
1		Height of Upper	230 mm. Size 42.
		Thread	Fire Retardant Red Thread Tkt. 20 Nylon Black Thread Tkt.40
		Laces	N.A.
	Toe	General	Toe-caps are incorporated in such a way that they cannot be removed. Footwear is lined in the Toe section. The lining at the edge of toe caps extends to more than 5mm beneath it, and more than 10mm behind it.
2	Protection	Construction	Made from Steel and Heat Treated.
		Internal Length of Toe Cap	Above 39 mm.
		Impact Resistance	When tested at an impact energy of 200 Joules, the clearance under the toe caps at impact is above 14 mm.



Sole	Sole Protection	General	The penetration resistant (steel plate 0.8 mm thick) insert shall be of such that the maximum distance between the line represented by the feather edge of the last and edge of the insert is 6.5 mm. In the heel region the maximum distance between the line represented by the feather edge of the last and the insert shall be 17 mm.
3	(Penetration	Construction	Made from High Carbon Steel
	Resistance)	Penetration Resistance	Steel Nail should not penetrate at minimum force - 1100 N.
		Corrosion Resistance	Exhibits no more than five areas of corrosion, none of which exceed 2.5 sqmm in area.
		Flex Resistance of penetration resistance inserts	No Sign of cracking after 10,00,000 flex.
		Construction	Made from Buff Barton Print Black Leather.
		Thickness	1.8 mm-2.0 mm
		Tear Strength	Above 120 N.
		Tensile Strength	Above 15 N/mm <sup>2</sup> .
4 Upper Leather		WVP & WVC	Above 0.8 mg/cm2/h. & Above 15.0 mg/cm sq.
	Leather	Water Penetration	Water absorption shall be no higher than 30% after 60 min. Water penetration shall not to occur during this period, not exceed 0.2 g after a further 60 min.
		Chrome VI Content	As per EN20345 norms detectable upto 3.0 mg/Kg limit.



5	Tongue	Tear Strength	NA
6 Vamp Lining	Vamp	Tear Strength	Above 15 N.
		Martindale Abrasion Resistance	The lining does not develop holes when exposed to 25,600 dry cycles, and 12,800 wet cycles.
	Lining	Water vapor Permeability	Above 2.0 mg/cm2/h.
	Water vapor co-efficiency	Above 30 mg/cm2/h.	
	7 Shoe Lining	Construction	Non-woven white vamp lining.
		Tear Strength	Above 15 N for Textile
1 7		Martindale Abrasion Resistance	The lining does not develop holes when exposed to 25,600 dry cycles, and 12,800 wet cycles.
	Water vapor Permeability	Above 2.0 mg/cm2/h.	
	Water vapor co-efficiency	Above 20 mg/cm2/h.	
8 Insole		Construction	Insole (Nonwoven Antistatic Material) is incorporated in such a way that it can not be removed.
		Thickness	2.0 to 2.5 mm.
	Insole	Water Absorption	Above 70 %.
		Desorption	Above 80 %.
		Abrasion	No damage to the insole when exposed to 400 cycles.



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9 I		Material & Colour	Fabtex Black laminated with EVA cushioning.
		Thickness	2.5 -3. mm
	Insock	Abrasion Resistance	The lining does not develop holes when exposed to 25,600 dry cycles, and 12,800 wet cycles.
		Water Absorption	Above 70 %.
		Desorption	Above 80 %.
		Construction	Dual Density Polyurethane
		Colour	Outsole : Orange Midsole : Black
		Thickness	Above 6 mm.
		Tear Strength	More than 5 kN/mm.
10		Abrasion Resistance	Volume loss is below 250 mm <sup>3</sup> .
	Outsole	Flexing Resistance (30,000 cycles)	Cut growth is below 4 mm.
		Hydrolysis (150,000 cycles)	Cut growth is below 6 mm.
		Interlayer Bond Strength	Above 4 N/mm & 3N/mm in case of sole tearing.
		Upper Outsole Bond Strength	Above 4 N/mm & 3N/mm in case of Leather tearing.
		Resistance to Fuel Oil	Below 12%. Volume swelling
		Cleated Outsole	More than 45% of fore-part covered with cleats.
11	Antistatic Property		After conditioning in a dry and wet atmosphere, the electrical resistance is above 100 K ohms and below 1000 M ohms.



12	Energy Absorption of seat Reagion	Above 20 joules
13	Anti Slip Property	SRA as per EN20345 Norms
14	Heat Insulation of Sole Complex	22 °C.(Max) when tested as per EN20345
15	Cold Insulation of Sole Complex	10 °C.(Max) when tested as per EN20345
16	Hot Contact (PU Sole)	No damage to PU sole when exposed to a temperature of 150°C for 1 minute.