Laboratory Building Fire Research Centre, The National Institute of Engineering,

Manatody Road, Mysore, Karnataka

Accreditation Standard ISO/IEC 17025: 2005

Discipline Mechanical Testing Issue Date 10.09.2014

Certificate Number T-2273 Valid Until 09.09.2016

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I.	PERFORMANCE T	ΓEST		
1,	Fire Extinguisher Types: Water Type/Carbon di Oxide/ powders / clean agents	Fill density	IS 15683: 2006 (Cl.5.3)	0.5 kg/L to 1 kg/L
		Minimum Effective Discharge time and Bulk Range of Discharge	IS 15683: 2006 (Cl.7.2)	Class A,B,C Rating: Time 0.1 s to 20 s with Bulk throw Distance Upto 2 m
		Resistant to Temperature Change	IS 15683: 2006 (Cl.7.3)	Temperature: Upto 60 °C Discharge time: 0.1 s to 20 s Retention Upto 50 %
		Retention of Charge -Routine Checks	IS 15683: 2006 (Cl.7.4)	Capacity Upto 100 %
		Retention of Charge -Long term leakage	IS 15683: 2006 (Cl.7.4)	0.1 % to 20 %
		Mechanical Resistance Test (Impact Test)	IS 15683: 2006(Cl.7.5)	Qualitative (Hammer (4kg) at height 300 mm, temperature 65 ±5 °C)
		Resistance to Vibration	IS 15683:2006 (C1.7.6.2)	Qualitative (Frequency 40 Hz Amplitude of 0.25 ± 0.03 mm, Duration 2hr)

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	Fire Extinguisher Types: Water Type/Carbon di	Corrosion Test (external)	IS 15683: 2006 (Cl.7.6.1) & IS 6910: 1985 (RA 2006)	Qualitative (Exposure to salt spray for 240 hr)
	Oxide/ powders / clean agents	Tapping Test	IS 15683: 2006 (Cl.7.7)	Class A, B, C Rating: Time 0.1 s to 20 s
		Intermittent Discharge Test	IS 15683: 2006 (Cl.7.8)	Upto 50 %
		Rating Test Fire	IS 15683: 2006 Class A (Cl, 8.3) Class B (Cl .8.4) Class C (Cl. 8.1.3)	Qualitative
		Crushing Test	IS 15683:2006 (Cl.9.2.3)	Qualitative (Pressure Upto 70 kg/cm ²)
		Burst Pressure Test	IS 15683:2006 (Cl.9.2)	Upto 100 kg/cm ²
		Sheet Thickness	IS 15683:2006 (Cl.9.2.6.3)	0.1 mm to 25 mm
		Pressure Cyclic Test	IS 15683:2006 (Cl.9.2.5)	Qualitative (Pressure Range 70 kg/cm ² 5000 cycles)
		Hydraulic Pressure Test	IS 15683:2006 (Cl.9.2)	1 kg/cm ² to 60 kg/cm ²
		Safety Locking Device	IS 15683:2006 (Cl.9.11)	Qualitative (20 N to 100 N)
2.	Metallic & Non Metallic Doors	Fire Performance Test	IS 3614 (Part 2): 1992	Upto 1000 °C

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection				
II.	BUILDING MATERIALS							
1.	Concrete and Concrete mix	Compression test Slump cone test Compacting Factor Test	IS 516: 1959 IS 1199: 1959	Qualitative 0 to 3000 kN				
2.	Cement	Consistency of standard Cement	IS 4031(Part 4): 1988	0 to 50 mm				
		Initial and Final Setting Time	IS 4031 (Part 5): 1988	Qualitative				
		Compressive Strength of Hydraulic Cement other than Masonry	IS 4031 (Part 6): 1998	0 to 3000 kN				
		Fineness by Dry Sieving	IS 4031 (Part 1): 1996	150 μm to 10 mm				
3.	Aggregates	Size and Grading	IS 383: 1970	12.5 mm & 20 mm 4.75 mm to 40 mm 150 μm to 10 mm				
		Rebound Hammer Test	IS 13311 (Part 2): 1992	Qualitative				

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