

Laboratory Truba Testing Lab & Research Centre, Truba Institute of Engineering & Information Technology, Karond-Gandhi Nagar By Pass Road, Bhopal, Madhya Pradesh

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-8356

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Validity 21.02.2019 to 20.02.2021

Last Amended on 29.04.2019

"In view of the transition for ISO/IEC 17025:2017, the validity of this accreditation certificate will cease on 30.11.2020"

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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MECHANICAL TESTING

I.	BUILDING MATERIALS			
1.	Coarse Aggregate	Flakiness Index	IS 2386 (Part 1)	5 % to 50 %
		Elongation Index	IS 2386 (Part 1)	5 % to 50 %
		Specific Gravity	IS 2386 (Part 3)	2 to 3
		Water Absorption	IS 2386 (Part 3)	0.10 % to 10 %
		Bulk Density	IS 2386 (Part 3)	1.2 kg/L to 2.4 kg/L
		Impact Value	IS 2386 (Part 4)	5 % to 40 %
		Crushing Value	IS 2386 (Part 4)	5 % to 50 %
		10% Fines Value	IS 2386 (Part 4)	5 Tonne to 50 Tonne
		Abrasion - Los Angels	IS 2386 (Part 4)	5 % to 50 %
2.	Fine Aggregate	Sieve Analysis	IS 2386 (Part 1)	Upto 100 % (0.15 mm to 10 mm)
		Specific Gravity	IS 2386 (Part 3)	2 to 4
		Water Absorption	IS 2386 (Part 3)	0.10 % to 10 %
		Bulk Density	IS 2386 (Part 3)	1.2 kg/L to 2.40 kg/L
		Bulking	IS 2386 (Part 3)	1 % to 40 %
3.	Bitumen	Penetration	IS 1203	10 to 100 (1/10 th of mm)
		Softening Point	IS 1205	30 °C to 100 °C
		Ductility	IS 1208	50 mm to 100 mm
		Flash Point	IS 1448 (Part 69)	100 °C to 360 °C
		Fire Point	IS 1448 (Part 69)	100 °C to 360 °C
4.	Brick	Dimensions	IS 1077	L-3000 mm to 5500 mm W-1400 mm to 2400 mm T-1000 mm to 2200 mm
		Compressive Strength	IS 3495 (Part 1)	5 N/mm ² to 40 N/mm ²
		Water Absorption	IS 3495 (Part 2)	1 % to 30 %
		Efflorescence	IS 3495 (Part 3)	Qualitative

Laboratory

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5.	Hardened Concrete	Compressive Strength – Cube	IS 516	5 N/mm ² to 80 N/mm ²
6.	Cement (OPC)	Fineness by Blaine's Air Permeability	IS 4031 (Part 2)	150 m ² /kg to 700 m ² /kg
		Soundness (by Le-Chatelier Method)	IS 4031 (Part 3)	0.50 mm to 15 mm
		Standard Consistency	IS 4031 (Part 4)	15 % to 40 %
		Initial Setting Time	IS 4031 (Part 5)	30 minute to 300 minute
		Final Setting Time	IS 4031 (Part 5)	150 minute to 600 minute
		Compressive Strength	IS 4031 (Part 6)	10 N/mm ² to 65 N/mm ²
		Density	IS 4031 (Part 11)	2 g/cc to 3.5 g/cc
II.	MECHANICAL PROPERTIES OF METALS			
1.	Steel Bars	Mass per meter	IS 1786	0.01 kg/m to 1 kg/m
		Tensile Strength	IS 1608 (Part 1)	100 N/mm ² to 1000 N/mm ²
		Yield Stress	IS 1608 (Part 1)	100 N/mm ² to 800 N/mm ²
		Elongation	IS 1608 (Part 1)	5 % to 50 %
III.	SOIL & ROCK			
1.	Soil	Water Content	IS 2720 (Part 2)	1 % to 50 %
		Specific Gravity	IS 2720 (Part 3)	1.4 to 3.5
		Grain Size Analysis (by sieving)	IS 2720 (Part 4)	0 to 100 % (0.075 mm to 40 mm)
		Liquid Limit (Casagrande Method)	IS 2720 (Part 5)	5 % to 100 %
		Plastic Limit	IS 2720 (Part 5)	10 % to 60 %
		Shrinkage Limit	IS 2720 (Part 6)	1 % to 40 %

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		Light Compaction	IS 2720 (Part 7)	MDD: 1 g/cc to 2.5 g/cc OMC: 5 % to 30 %
		Heavy Compaction	IS 2720 (Part 8)	MDD: 1 g/cc to 3.0 g/cc OMC: 5 % to 30 %
		Unconfined Compressive Strength	IS 2720 (Part 10)	0.2 kg/cm ² to 5.0 kg/cm ²
		Triaxial Compression	IS 2720 (Part 12)	C: Upto 2.5 kg/cm ² Φ: 5° to 50°
		Direct Shear (Undrained)	IS 2720 (Part 13)	C: Upto 2.5 kg/cm ² Φ: 5° to 50°
		California Bearing Ratio	IS 2720 (Part 16)	1 to 90
		Permeability - Constant Head	IS 2720 (Part 17)	10 ⁻³ cm/s to 10 ⁻⁸ cm/s
		Free Swell Index	IS 2720 (Part 40)	1 % to 200 %
		Swelling Pressure	IS 2720 (Part 41)	1 kN/m ² to 100 kN/m ²