

Laboratory **ALEX Testing Labs, 4/237, Basement, Chitrakoot, Vaishali Nagar, Jaipur, Rajasthan**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-6902**

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Validity **07.02.2018 to 06.02.2020**

Last Amended on --

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 MATERIAL			
1.	Cement (PPC/OPC)	Consistency	IS 4031 (Part -4)	20% to 40%
		Setting Time Initial	IS 4031 (Part -5)	30 minutes to 300 minutes
		Setting Time Final	IS 4031 (part -5)	50 minutes to 600 minutes
		Soundness by Le-Chatelier Method	IS 4031 (Part -3)	0.1 mm to 10 mm
		Compressive Strength	IS 4031 (Part -6)	10 N/mm ² to 70 N/mm ²
		Density	IS 4031 (Part -11)	2.14 g/cm ³ to 3.51 g/cm ³
2.	Aggregate (Coarse)	Sieve Analysis	IS 2386 (part -1)	0.1% to 100% (4.75 mm to 80 mm)
		Crushing Value	IS 2386 (Part -4)	5% to 50 %
		Impact Value	IS 2386 (Part -4)	5% to 50 %
		Abrasion Value	IS 2386 (Part -4)	5% to 70 %
		10% fine value	IS 2386 (Part -4)	5 kN to 250 kN
		Bulk Density	IS 2386 (Part -3)	1.0 kg/l to 4 kg/l
		Water Absorption	IS 2386 (Part -3)	0.1 % to 20 %
		Elongation Index	IS 2386 (Part -1)	5 % to 70 %
3.	Aggregate (Fine)	Specific Gravity	IS 2386 (Part -1)	2 to 4
		Water Absorption	IS 2386((Part -3	0.1 % to 5%
		Sieve Analysis	IS 2386 (Part -1)	0.1 % to 100% (75 μm to 10 mm)

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		Bulk Density	IS 2386 (Part -3)	1 kg/l to 2.5 kg/l
		Bulking of Sand	IS 2386 (Part -3)	0.1 % to 20%
		% Finer than 75 µm	IS 2386 (Part -2)	0.01 % to 20 %
4.	Burnt clay bricks/ Fly ash bricks	Compressive Strength	IS 3495 (Part -1)	1 N/mm ² to 20 N/mm ²
		Water absorption	IS 3495 (Part -2)	0.1 % to 30%
		Efflorescence	IS 3495 (Part -3)	Qualitative (Visual)
		Dimension Length Width Height	IS 1077	4500 mm to 4800 mm 2000 mm to 2500mm 1200 mm to 1600 mm
5.	Bitumen	Softening Point	IS 1205	30 °C to 80 °C
		Fire & Flash Point	IS 1209	50 °C to 500 °C
		Binder Content	ASTM-D- 2172	2% to 8%
6.	Door Shutter	Dimension(Thickness)	IS 4020 (Part -2)	10-150mm
		Glue Adhesion Test	IS 4020 (Part -15)	Qualitative
		Knife test	IS 4020 (Part -14)	Qualitative
7.	Stone	Water Content	IS 13030	0.01% to 1 %
		Water Absorption	IS 1124	0.05% to 8 %
8.	Ceramic Tiles	Dimension	IS 13630(Part -1)	5 mm to 600 mm
		Water Absorption	IS 13630(Part -2)	0.01% to 30%
9.	Concrete Tiles	Wet Transverse Strength	IS 1237	1 N/mm ² to 10 N/mm ²
		Water Absorption	IS 1237	0.1% to 20 %
10.	Paver Block	Dimension (Thickness)	IS 15658 (Annexure-B)	20mm to 200mm
		Compressive Strength	IS 15658 (Annexure-D)	5 N/mm ² to 70N/mm ²
		Water Absorption	IS 1565 (Annexure -C)	1% to 10%
11.	Concrete	Slump	IS 1199	25 mm to 200 mm
		Compressive Strength	IS 516	10 N/mm ² to 80 N/mm ²

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12.	Chemical Admixture	Water Content	IS 9103	0.5% to 20%
		Initial Setting Time	IS 8142	100 minutes to 900 minutes
		Final Setting Time	IS 8142	300 minutes to 900 minutes
		Loss of Workability	IS 1199	25 mm to 200 mm
II.	SOIL & ROCK			
1.	Soil	Heavy Compaction Test Maximum Dry Density Optimum Moisture Content	IS 2720 (Part -8)	1.5 g/cm ³ to 2.5 g/cm ³ 5 % to 30%
		Light Compaction Test Maximum Dry Density Optimum Moisture Content	IS 2720 (Part -7)	1.5 g/cm ³ to 2.5 g/cm ³ 5 % to 30%
		Grain Size Analysis	IS 2720 (Part -4)	75 µm to 80 mm (1% to 100%)
		Plastic limit	IS 2720 (Part -5)	10 % to 25%
		Liquid limit	IS 2720 (Part -5)	20 % to 60%