

Laboratory Shree Soil & Material Testing Laboratory, 86/A, Panchayat Nagar,
Street 1k, University Road, Rajkot, Gujarat

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-5972

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Validity 11.07.2017 to 10.07.2019

Last Amended on 11.09.2018

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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CHEMICAL TESTING

1	WATER			
1.	Construction Water	pH	IS 3025: (Part 11)	1 to 14
		Chloride	IS 3025: (Part 32)	5 mg/l to 5000 mg/l
		Sulphates	IS 3025: (Part 24)	10 mg/l to 1000mg/l

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<u>MECHANICAL TESTING</u>				
I.	BUILDING MATERIALS			
1.	Concrete	Compressive strength	IS 516	5 N/mm ² to 80 N/mm ²
		Slump Test	IS 1199	1 mm to 250mm
2	Paver Block	Compressive strength	IS 15658	1 N/mm ² to 65 N/mm ²
		Water Absorption	IS 15658	0.5 to 30 %
3	Bricks (Burnt clay)	Compressive strength	IS 3495(Part 1)	1.0 N/mm ² to 30.0 N/mm ²
		Water absorption	IS 3495, (Part 2)	1 % to 30 %
		Efflorescence	IS 3495, (Part 3)	Qualitative
		Dimension	IS 1077	L=100 mm to 5000 mm W=50 mm to 2500 mm H=40 mm to 2000 mm
4	(a)Bitumen	Softening Point	IS 1205	40°C to 150 °C
		Penetration	IS 1203	1 Div. To 400 1/10 th
		Ductility	IS 1208	30 cm to 100 cm
		Absolute Viscosity	IS 1206(Part 2)	360 Poise to 4000 Poise
		Kinematic viscosity	IS 1206(Part 3)	60 cSt to 600 cSt
	Specific Gravity	IS 1202	0.8 to 1.5	
(b)Bituminous Mix	Marshal Stability	ASTM D 6927-05	1 kN to 25 kN	
	Flow Value	ASTM D 6927-05	1 mm to 6 mm	
	Binder Content	ASTM D 2172: 2011	1 % to 10 %	
	Density	ASTM D 2014: 2011	1.5 g/cc to 3.5 g/cc	
5	Aggregates	Sieve Analysis	IS 2386,(Part 1)	1% to 100% (4.75 mm to 80 mm)
		(a) Coarse Aggregates	Specific Gravity	IS 2386 ,(Part 3)
		Water absorption	IS 2386, (Part 3)	0.1% to 10 %
		Flakiness Index	IS 2386, (Part 1)	2% to 40 %
		Elongation Index	IS 2386, (Part 1)	2% to 40 %
		Impact Value	IS 2386, (Part 4)	1% to 50 %
		Crushing Value	IS 2386 (Part 4)	5% to 60 %
		Bulk Density	IS 2386 (Part-3)	1 g/cc to 3 g/cc

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	(b) Fine Aggregates	Sieve Analysis	IS 2386,(Part 1)	1% to 100% (75 Micron to 4.75 mm)
		Specific Gravity	IS 2386 (Part 3)	1.5 to 4.0
		Water absorption	IS 2386,(Part 3)	0.1% to 10 %
		Bulk Density	IS 2386(Part 3)	1 g/cc to 3 g/cc
6	Cement (OPC/PPC)	Consistency	IS 4031 (Part 4)	up to 40 %
		Initial Setting Time	IS 4031,(Part 5)	30 minute to 300minute
		Final Setting time	IS 4031,(Part 5)	30 minute to 600 minute
		Compressive strength	IS 4031,(Part 6)	10 N/mm ² to 80 N/mm ²
		Soundness with Le-Chattalier method	IS 4031,(Part 3)	0.5 mm to 10 mm
		Blain air permeability	IS 4031 (Part 2)	100 m ² /kg to 600 m ² /kg
		Density	IS 4031 (Part 11)	1.5 g/cm ³ to 4 g/cm ³
II	SOIL & ROCK			
1.	Soil	Grain Size analysis	IS 2720 (Part 04)	75 micron to 40mm
		Liquid limit	IS 2720 (Part 5)	25 % to 40 %
		Plastic Limit	IS 2720 (Part 5)	10 % to 50 %
		Specific Gravity	IS 2720 (Part 3)	2.0 to 3.0
		Light Compaction	IS 2720 (Part 7)	MDD: 1 to 3 g/cc OMC 5% to 40%
		Heavy Compaction	IS 2720 (Part 8)	MDD: 1.4 to 3 g/cc OMC 5 % to 40%
		California Bearing Ratio	IS 2720 (Part 16)	1% to 60 %