

Laboratory Shree Civil Engg. Pvt. Ltd., 66-C Hari Om Villa, Jadavji Nagar, Bhuj, Gujarat

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6986

Page 1 of 3

Validity 05.03.2018 to 04.03.2020

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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**CHEMICAL TESTING**

I.	WATER			
1.	Water for Construction	pH (Potentiometric Method)	IS 3025 (Part 11)	2 to 12
		Chloride as Cl (Argentometric Method)	IS 3025 (Part 32)	5 mg/L to 5000 mg/L
		Sulphate as BaSO <sub>4</sub> (Gravimetric Method)	IS 3025 (Part 24)	11 mg/L to 1000 mg/L

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Page 2 of 3

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**MECHANICAL TESTING**

<b>I. BUILDING MATERIALS</b>				
1.	<b>Hardened Concrete</b>	Compressive strength	IS 516	10 N/mm <sup>2</sup> to 80 N/mm <sup>2</sup>
2.	<b>Fresh Concrete</b>	Slump Test	IS 1199	10 mm to 250 mm
3.	<b>Paver Block</b>	Compressive strength	IS 15658	10 N/mm <sup>2</sup> to 50 N/mm <sup>2</sup>
		Water Absorption	IS 15658	0.5 % to 30 %
3.	<b>Bricks (Burnt clay)</b>	Compressive strength	IS 3495 (Part 1)	3.0 N/mm <sup>2</sup> to 30.0 N/mm <sup>2</sup>
		Water absorption	IS 3495 (Part 2)	1% to 30%
		Efflorescence	IS 3495 (Part 3)	Qualitative
		Dimension Length Width Height	IS 1077	100 mm to 5000 mm 50 mm to 2500 mm 40 mm to 2000 mm
4.	<b>Bitumen</b>	Softening Point	IS 1205	40°C to 100°C
		Penetration	IS 1203	10 to 100(1/10 <sup>th</sup> )
		Ductility	IS 1208	10 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	0.5 to 1.5
5.	<b>Bituminous Mix</b>	Marshal Stability	ASTM D 6927-05	1 kN to 25 kN
		Flow Value	ASTM D 6927-05	1 mm to 20.0 mm
		Binder Content	ASTM D 2172	1 % to 10 %
		Density	ASTM D 2014	1.5 g/cc to 3.5 g/cc
6.	<b>Coarse Aggregate</b>	Sieve Analysis	IS 2386 (Part 1)	1 % to 100 % (2.36 mm to 90 mm)
		Specific Gravity	IS 2386 (Part 3)	2.0 to 4.0
		Water absorption	IS 2386 (Part 3)	1 % to 10 %
		Flakiness Index	IS 2386 (Part 1)	5 % to 70 %

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Page 3 of 3

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		Elongation Index	IS 2386 (Part 1)	5 % to 70 %
		Impact Value	IS 2386 (Part 4)	5 % to 50 %
		Crushing Value	IS 2386 (Part 4)	5 % to 50 %
		Bulk Density	IS:2386 (Part 3)	1 kg/L to 3 kg/L
7.	Fine Aggregate	Sieve Analysis	IS2386 (Part 1)	1 % to 100 % (75 Micron to 10 mm)
		Specific Gravity	IS 2386 (Part 3)	2.0 to 4.0
		Water absorption	IS2386 (Part 3)	1% to 10%
		Bulk Density	IS: 2386 (Part 3)	1 kg/L to 3kg/L
8.	Cement (OPC/PPC)	Consistency	IS 4031 (Part 4)	25 % to 40 %
		Initial Setting Time	IS 4031 (Part 5)	30 min to 300 min
		Final Setting time	IS 4031 (Part 5)	100 min to 600 min
		Compressive strength	IS 4031 (Part 6)	10 N/mm <sup>2</sup> to 80 N/mm <sup>2</sup>
		Soundness (Le-Chattalier method)	IS 4031 (Part 3)	0.5 mm to 10 mm
		Blain air permeability	IS 4031(Part 2)	100 m <sup>2</sup> /kg to 600 m <sup>2</sup> /kg
		Density	IS 4031 (Part 11)	2.0 g/cc to 2.7 g/cc
II.	SOIL & ROCK			
1.	Soil	Grain Size analysis	IS 2720 ((Part 4)	75 µm to 40 mm
		Liquid limit	IS 2720 ((Part 5)	25 % to 80 %
		Plastic Limit	IS 2720 (Part 5)	5 % to 50%
		Specific Gravity	IS 2720 (Part 3)	2.0 to 3.0
		Light Compaction	IS 2720 (Part 7) MDD OMC	1 g/cc to 3 g/cc 5 % to 40 %
		Heavy Compaction	IS 2720 (Part 8) MDD OMC	1.4 g/cc to 3 g/cc 5 % to 40 %
		California Bearing Ratio	IS 2720 (Part 16)	1 % to 60 %