

Laboratory

S. K. Consultancy & Laboratory, Plot No. 58, Chandragiri Colony,
Tirmulgherry, Secunderabad, Telangana

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number

TC-5576

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Validity

08.05.2017 to 07.05.2019

Last Amended on 25.07.2018

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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MECHANICAL TESTING

I. BUILDING MATERIALS				
1.	Aggregate (Fine)	Sieve Analysis	IS 2386 Part 1	75 microns to 4.75 mm
		Material finer than 75 microns	IS 2386 Part 1	0.1% to 25%
		Water absorption	IS 2386 Part 3	0.1% to 10%
		Specific Gravity	IS 2386 Part 3	1.5 to 4
		Bulk Density	IS 2386 Part-3	1.0 g/cc to 2.5 g/cc
2.	Aggregate (Coarse)	Sieve Analysis	IS 2386 Part 1	25 mm to 20 mm
		Water absorption	IS 2386 Part 3	0.1% to 10%
		Specific Gravity	IS 2386 Part 3	1.5 to 4
		Flakiness Index	IS 2386 Part 1	1% to 50%
		Elongation Index	IS 2386 Part 1	1% to 50%
		Crushing Value	IS 2386 Part 4	1% to 50%
		Impact Value	IS 2386 Part 4	1% to 50%
		10% fines value	IS 2386 Part 4	5 kN to 400kN
		Los Angeles Abrasion Value	IS 2386 Part 4	1% to 60%
3.	Hardened Concrete	Bulk Density	IS 2386 Part 3	1 g/cc to 2.5 g/cc
		Compressive Strength	IS 516	10 N/mm ² to 80 N/mm ²
		Flexural strength	IS 516	0.5 N/mm ² to 10.0 N/mm ²
4.	Concrete Paving Blocks	Compressive Strength	IS 15658	5 N/mm ² to 80 N/mm ²
		Water Absorption	IS 15658	0.5% to 20%
5.	Hollow & Solid Concrete Block	Water Absorption	IS 2185 Part 1/ IS 2185 Part 2	1% to 20%
		Compressive Strength	IS 2185 Part 1/ IS 2185 Part 2	1 N/mm ² to 35 N/mm ²
		Block Density	IS 2185 Part 1	1000 kg/m ³ to 2400 kg/m ³
6.	Burnt Clay Bricks	Compressive Strength	IS 3495 (Part 1)	1 kg/cm ² to 70 kg/cm ²
		Water Absorption	IS 3495 (Part 2)	1% to 25%

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		Dimensions Length Width Height	IS 1077	3720 mm to 4680mm 1760 mm to 2240mm 1360 mm to 1840mm
		Efflorescence	IS 3495 (Part 3)	Quantitative
7.	Bitumen	Penetration	IS 1203	10 to 100
		Ductility	IS 1208	5 cm to 100 cm
		Specific Gravity	IS 1202	0.99 to 1.102
		Softening Point	IS 1205	35°C to 80°C
8.	Cement (OPC/PPC/PSC)	Normal Consistency	IS 4031 Part 4	20% to 40%
		Setting Time (Initial)	IS 4031 Part 5	30 min. to 350 min.
		Setting Time (Final)	IS 4031 Part 5	100 min. to 600 min.
		Fineness by Blain's air permeability	IS 4031 Part 2	100 m ² /kg to 700 m ² /kg
		Soundness By Le Chatelier Method	IS 4031 Part 3	0.1 mm to 10 mm
		Compressive Strength	3 days 7 days 28 days	IS:4031 Part 6 10 N/mm ² to 80 N/mm ²
		Density	IS 4031 Part 11	1.5 to 4.0
9.	Bituminous Mixes	Bitumen Content	IRC SP-11; Appendix-5	2% to 8%
		Density	ASTM D 2041	1.5 g/cc to 3.5 g/cc
		Marshal Stability	ASTM D 6927	8 kN to 40 kN
		Flow	ASTM D 6927	2 mm to 8 mm
II.	SOIL & ROCK			
1.	Soil	Grain size Analysis	IS 2720 (Part 4)	2 mm to 75 µm
		Liquid Limit	IS 2720 (Part 5)	20% to 80%
		Plastic Limit	IS 2720 (Part 5)	5% to 50%
		Free Swell Index	IS 2720 (Part 40)	1% to 90%
		Specific Gravity	IS 2720 (Part-3/Sec-1 & 2)	1.0 to 3.0
		Light Compaction	IS 2720 (Part 7)	MDD:1g/cc to 3.00 g/cc OMC:1% to 25%

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		Heavy Compaction	IS 2720 (Part 8)	MDD:1.4 g/cc to 2.60 g/cc OMC:1% to 20%
		Triaxial Test	IS 2720 (Pt 11)	C=Up to 2 kg/cm ² Ø=5° to 40°
		Moisture Content	IS 2720 (Part 2)	0.1% to 35%
		CBR Test	IS 2720 (Part 16)	1% to 60%
		Direct Shear	IS 2720 (Part 13)	C= Up to 0.5 kg/cm ² Ø=5° to 50°
		Unconfined compression strength	IS 2720 (Part 10)	C=0.1 to 2 kg/cm ²
		Consolidation	IS 2720 (Part 15)	0.1 kg/cm ² to 8 kg/cm ²
2.	Rock	Water Absorption	IS 13030	0.1% to 20%
		Density	IS 13030	1 g/cc to 4 g/cc
		Unconfined Compressive Strength	IS 9143	10 N/mm ² to 200 N/mm ²
		Point Load Index	IS 8764	1 N/mm ² to 20 N/mm ²
		Brazilian strength	IS 10082	1 N/mm ² to 50 N/mm ²
		Slake durability	IS 10050	5% to 100%