

Laboratory DCM Test Lab, Scout & Guide Building, Santi Marg, Shyamla Hills, Bhopal, Madhya Pradesh

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6917 (in lieu of T-3838)

Page 1 of 3

Validity 10.03.2018 to 09.03.2020

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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MECHANICAL TESTING

I.	BUILDING MATERIAL			
1.	Coarse Aggregate	Impact Value	IS:2386 (Part-4)-1963 (RA -2016)	5% to 50%
		Crushing Value	IS:2386 (Part-4)-1963 (RA -2016)	5% to 50%
		Water Absorption	IS:2386 (Part-3)-1963 (RA -2016)	0.1% to 10%
		Bulk Density	IS:2386 (Part-3)-1963 (RA -2016)	1 kg/L to 3 kg/L
		Flakiness Index	IS:2386 (Part-1)-1963 (RA -2016)	10% to 60%
		Elongation Index	IS:2386 (Part-1)-1963 (RA -2016)	10% to 60%
		10% Fine Value	IS:2386 (Part-4)-1963 (RA -2016)	10 Ton to 60 Ton
		Specific Gravity	IS:2386 (Part-3)-1963 (RA -2016)	1 to 3
		Sieve Analysis	IS:2386 (Part-1)-1963 (RA -2016)	0.1% to 100%
		Los Angles Abrasion Value	IS:2386 (Part-4)-1963 (RA -2016)	5% to 50%
2.	Fine Aggregate	Specific Gravity	IS:2386 (Part-3)-1963 (RA -2016)	1 to 3
		Surface Moisture Contents	IS:2386 (Part-3)-1963 (RA -2016)	0.2% to 10%
		Water Absorption	IS:2386 (Part-3)-1963 (RA -2016)	0.1% to 10%
		Bulking of Sand	IS:2386 (Part-3)-1963 (RA -2016)	1% to 30%

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Page 2 of 3

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		Sieve Analysis	IS:2386 (Part-1)-1963 (RA -2016)	0.1% to 100%
3.	Concrete	Compressive Strength	IS:516-1959(RA2013)	5 MPa to 80 MPa
4.	Burnt Clay Bricks	Water Absorption	IS:3495(Part-2)-1992 (RA -2016)	5% to 30%
		Compressive strength	IS:3495(Part-1)- 1992 (RA -2016)	5 MPa to 25 MPa
5.	Cement (OPC/PPC/PSC)	Normal Consistency	IS:4031(Part -4)-1988 (RA -2014)	20% to 40%
		Compressive Strength of Cube	IS:4031 (Part-6)-1988 (RA -2014)	10 N/mm ² to 75 N/mm ²
		Soundness (Lechatelier's method)	IS:4031 (Part-3)-1988 (RA -2014)	0.1% to 10 mm
		Initial Setting time	IS: 4031(Part-5)-1988 (RA -2014)	30 min to 250 min
		Final Setting time	IS:4031 (Part-5)-1988 (RA -2014)	100 min to 600 min.
6.	Bitumen	Softening point	IS:1205(RA -2014)	30 °C to 157 °C
		Penetration Value	IS:1203 (RA -2014)	50 to 100 (1/10 th mm)
		Ductility	IS:1208 (RA -2014)	5 cm to 100 cm
		kinematic Viscosity	IS:1206 (Part-3) (RA -2014)	30 cSt to 500 cSt
7.	Bitumen Mix	Binder content	ASTM D 2172	0.1% to 10%
		Maximum specific gravity (GMM)	ASTM D 2041	0.5 to 5
		Marshal stability	ASTM D 6927	5 kN to 45 kN
8.	Chequered Cement Concrete Tiles	Water Absorption	IS:13801-2013 (RA -2013) (Annexure-E)	0.1% to 10%
		Resistance to wear	IS:13801-2013 (RA -2013) (Annexure-G)	0.1 mm to 2.5 mm
9.	Natural Building Stones	Water Absorption	1124-1974 (RA-2017)	0.05% to 1.5%

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Page 3 of 3

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		Compressive Strength	1121 Part-1 (RA-2017)	100 kg/cm ² to 1500 kg/cm ²
II.	MECHANICAL PROPERTIES OF METALS			
1.	Steel Reinforcement	Yield Stress	IS:1608 -2005 (RA -2017)	100 N/mm ² to 700 N/mm ²
		Tensile strength	IS:1608 -2005 (RA -2017)	100 N/mm ² to 700 N/mm ²
		Elongation	IS:1608 -2005 (RA -2017)	10% to 40%
		Weight Per Meter	IS:1608 -2005 (RA -2017)	0.5 kg/m to 20 kg/m
III.	SOIL AND ROCK			
1.	Soil	Grain Size Analysis	IS:2720 (Part-4)-1985 (RA-2015)	75 µm to 100 mm
		Heavy Compaction Maximum Dry Density. Optimum Moisture Content	IS:2720 (Part-8)-1983 (RA-2015)	1 g/cc to 2.9 g/cc 0.5 % to 50 %
		Free Swelling Index	IS:2720 (Part-40)-1977 (RA-2016)	20% to 400%
		Liquid Limit	IS:2720 (Part-5)-1977 (RA-2015)	0.5% to 90%
		Plastic Limit	IS:2720 (Part-5)-1985 (RA-2015)	upto to 80%
		C B R Value	IS:2720 (Part-16)-1987 (RA-2016)	1% to 80%