

Laboratory **Civil Experts Consultants & Testing Center, #174, Sri Ranga Complex, Amruthnagar Main Road, Konanakunte, Bangalore, Karnataka**

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

Certificate Number **TC-6947 (in lieu of T-2838)**

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Validity **11.02.2018 to 10.02.2020**

Last Amended on **20.02.2018**

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.	Cement (OPC)	Consistency	IS 4031 (Part 4): 1988 (RA 2014)	20 % to 35 %
		Setting time Initial	IS 4031 (Part 5): 1988 (RA 2014)	5 min to 300 min
		Setting time Final	IS 4031 (Part 5): 1988 (RA 2014)	30 min to 600 min
		Fineness by dry sieving	IS 4031(Part 1): 1996 (RA 2016)	1 % to 10 %
		Soundness by Le Chartlier Method	IS 4031 (Part 3): 1988 (RA 2014)	0.1 mm to 10 mm
		Compressive Strength	IS 4031 (Part 6): 1988 (RA 2014)	5 kN to 1000 kN
2.	Coarse Aggregates	Sieve Analysis	IS 2386 (Part 1): 1963 (RA 2016)	4.75 mm to 80 mm
		Flakiness Index	IS 2386 (Part 1): 1963 (RA 2016)	1 % to 30 %
		Elongation Index	IS 2386 (Part 1): 1963 (RA 2016)	1 % to 30 %
		Specific gravity	IS 2386 (Part 3): 1963 (RA 2016)	2 to 4
		Water absorption	IS 2386 (Part 3): 1963 (RA 2016)	0.1 % to 5 %
		Aggregate impact value	IS 2386 (Part 4): 1963 (RA 2016)	1 % to 60 %
		Bulk Density	IS 2386 (Part 3): 1963 (RA 2016)	1 kg/l to 2 kg/l
		Voids	IS 2386 (Part 3): 1963 (RA 2016)	20 % to 60 %

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3.	Fine Aggregates	Sieve Analysis	IS 2386 (Part 1): 1963 (RA 2016)	Upto 100 %
		Specific gravity	IS 2386 (Part 3): 1963 (RA 2016)	2 to 4
		Water Absorption	IS 2386 (Part 3): 1963 (RA 2016)	0.1 % to 5 %
		Bulk Density	IS 2386 (Part 3): 1963 (RA 2016)	1 kg/l to 2 kg/l
		Void	IS 2386 (Part 3): 1963 (RA 2016)	20% to 60%
4.	Bitumen	Penetration	IS 1203:1978 (RA 2014)	30 Div to 100 Div (1/10 th mm)
		Ductility	IS 1208:1978 (RA 2014)	3 cm to 100 cm
		Flash & Fire point	IS 1209:1978 (RA 2014)	50 °C to 370 °C
		Softening point	IS 1205:1978 (RA 2014)	5 °C to 80 °C
5.	Bricks	Water absorption	IS 3495 (Part 2): 1992 (RA 2016)	1 % to 30 %
6.	Cubes	Compressive strength	IS 516:1959 (RA 2013)	5 kN to 1000 kN
II.	SOIL AND ROCK			
1.	Soil	Moisture content	IS 2720 (Part 2): 1973 (RA 2015)	1 % to 60 %
		Wet Sieve Analysis	IS 2720 (Part 4): 1985 (RA 2015)	0.075 mm to 4.75 mm
		Liquid Limit	IS 2720 (Part 5): 1985 (RA 2015)	10 % to 60 %
		Plastic Limit	IS 2720 (Part 5): 1985 (RA 2015)	10 % to 40 %
		Water Content-Dry Density relation using Light Compaction MDD OMC	IS 2720 (Part 7): 1980 (RA 2016)	1.00 g/cc to 2.50 g/cc 0.50 % to 20.00 %

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		Water Content-Dry Density relation using Heavy Compaction (Maximum Size of 19 mm) MDD OMC	IS 2720 (Part 8): 1983 (RA 2015)	1.00 g/cc to 2.50 g/cc 0.50 % to 20.00 %
		Free swell index	IS 2720 (Part 40): 1977 (RA 2016)	1 % to 100 %

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