

**Laboratory** Civil Engineering Testing Laboratory, Engineering Staff College of India, Old Bombay Road, Gachhibowli, Hyderabad, Telangana

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

**Certificate Number** TC-6691

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**Validity** 03.01.2018 to 02.01.2020

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.	SOIL & ROCK			
1.	Soil	Specific Gravity	IS 2720 (Part 3): 1980 (RA 2002)	1 to 3
		Grain size analysis by sieving	IS 2720 (Part 4): 1985 (RA 2015)	0.075 mm to 63 mm
		Liquid Limit	IS 2720 (Part 5): 1985 (RA 2006)	20 % to 80 %
		Plastic Limit	IS 2720 (Part 6): 1985 (RA 2006)	10 % to 40 %
		Free swell index	IS 2720 (Part 40): 1977 (RA 2016)	1 % to 90 %
		<b>Standard Proctors Compaction</b> - Maximum Dry density - Optimum moisture content	IS 2720 (Part 7): 1980 (RA 2011)	1 g/cc to 3 g/cc 1 % to 25 %
		California Bearing Ratio	IS 2720 (Part 16): 1987 (RA 2016)	1 % to 60 %
		Direct Shear Strength - Cohesion - Angle of internal friction	IS 2720 (Part 13): 1986 (RA 2016)	0.1 kg/cm <sup>2</sup> to 1 kg/cm <sup>2</sup> 20° to 45°
		Triaxial Shear Strength - Cohesion - Angle of internal friction	IS 2720 (Part 11): 1993 (RA 2016)	0.2 kg/cm <sup>2</sup> to 1.5 kg/cm <sup>2</sup> 5° to 20°

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II.	<b>BUILDINGS MATERIALS</b>			
1.	<b>Coarse Aggregate</b>	Sieve Analysis	IS 2386 (Part 1): 1963 (RA 2002)	4.75 mm to 63 mm
		Specific Gravity	IS 2386 (Part 3): 1963 (RA 2002)	2 to 4
		Bulk Density	IS 2386 (Part 3): 1963 (RA 2002)	1.2 kg/l to 2.5 kg/l
		Water Absorption	IS 2386 (Part 3): 1963 (RA 2002)	0.1 % to 10 %
2.	<b>Fine Aggregate</b>	Sieve Analysis	IS 2386 (Part 1): 1963 (RA 2002)	0.15 mm to 4.75 mm
		Specific Gravity	IS 2386 (Part 3): 1963 (RA 2002)	2 to 4
		Bulk Density	IS 2386 (Part 3): 1963 (RA 2002)	1.2 kg/l to 2.5 kg/l
		Water Absorption	IS 2386 (Part 3): 1963 (RA 2002)	0.1 % to 10 %
3.	<b>Cement Concrete Cube</b>	Compressive Strength	IS 516:1959 (RA 2013)	5 N/mm <sup>2</sup> to 88 N/mm <sup>2</sup>