

**Laboratory** Genstru Consultants Pvt. Ltd., Matreya Society, Flat No. B-02, Sector No. 40-42, Venu Nagar, Wakad, Pune, Maharashtra

**Accreditation Standard** ISO/IEC 17025: 2017

**Certificate Number** TC-5082

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**Validity** 29.12.2018 to 28.12.2020

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	Moisture Content	IS 2720 (Part 2)	Upto 600 %
		Liquid Limit	IS 2720 (Part 5)	20 % to 600 %
		Plastic Limit	IS 2720 (Part 5)	15 % to 100 %
		Shrinkage Limit	IS 2720 (Part 6)	10 % to 50 %
		Specific Gravity	IS 2720 (Part 3 & Sec 1)	1.5 to 3
		Grain Size Analysis (Wet and Dry Sieve analysis) (4.75 mm to 75 micron)	IS 2720 (Part 4)	0.1 % to 100 %
		Grain Size Analysis (Hydrometer analysis) (2 micron to 75micron)	IS 2720 (Part 4), Cl.5.2	0.1 % to 90 %
		Free Swell Index	IS 2720 (Part 40)	1 % to 200 %
		Direct Shear Test	IS 2720 (Part 13)	Cohesion=upto 4 kg/cm <sup>2</sup>
				Angle of Friction= Upto 50°
		Consolidation Test	IS 2720 (Part 15)	Cc=0.2 to 0.9
				Pc=0.05 kg/cm <sup>2</sup> to 3.0 kg/cm <sup>2</sup>
		Unconsolidated Undrained Triaxial Test	IS 2720 (Part 11)	Cohesion=Upto 4 kg/cm <sup>2</sup>
				Angle of Friction= Upto 35°
		Unconfined Compressive Strength	IS 2720 (Part 10)	0.01 kg/cm <sup>2</sup> to 8 kg/cm <sup>2</sup>
		Light Compaction	IS 2720 (Part 7)	MDD=1.2 g/cc to 2.2 g/cc
				OMC=5 % to 30 %
		Heavy Compaction	IS 2720 (Part 8)	MDD=
				1.2 g/cc to 2.2 g/cc
				OMC= 5 % to 30 %

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2.	Rock	CBR	IS 2720 (Part 16)	1 % to 45 %
		Water Absorption	IS 13030	Upto 25 %
		Porosity	IS 13030	Upto 50 %
		Density	IS 13030	1.5 g/cc to 4 g/cc
		Unconfined Compressive Strength	IS 9143	10 MPa to 500 MPa
3.	Natural Stone	Point Load Index	IS 8764	Upto 35 MPa
		True Specific Gravity	IS 1122	2 to 3.5
		Apparent Specific Gravity	IS 1124	2 to 3.5
		Water Absorption	IS 1124	Upto 25 %
		Porosity	IS 1124	Upto 30 %