

Laboratory Testing Laboratory, Ground Engineering Limited, Plot No. 335, Dera Village, New Delhi

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7055

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Validity 22.03.2018 to 21.03.2020

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.	SOIL & ROCK			
1.	Soil	Grain Size Analysis	IS 2720 (Part 4)	0.1 % to 100 % (2 µm to 20 mm)
		Liquid Limit	IS 2720 (Part 5)	20 % to 70 %
		Plastic Limit	IS 2720 (Part 5)	15 % to 30 %
		Shrinkage Limit	IS 2720 (Part 6)	10 % to 30 %
		Moisture Content	IS 2720 (Part 2)	2 % to 30 %
		Specific Gravity	IS 2720 (Part 3, Sec-1 & Sec-2)	2 to 3
		Triaxial Shear Strength	IS 2720 (Part 11)	C=0.05 kg/cm ² to 5 kg/cm ² Ø=0.005° to 18°
		Direct Shear	IS 2720 (Part 13)	C=0.05 kg/cm ² to 2.5 kg/cm ² Ø=0.005° to 45°
		Free Swell Index	IS 2720 (Part 40)	0.1 % to 500 %
		Swell Pressure	IS 2720 (Part 41)	0.01 kg/cm ² to 10 kg/cm ²
		Unconfined Compressive Strength	IS 2720 (Part 10)	0.05 kg/cm ² to 4 kg/cm ²
		Consolidation	IS 2720 (Part 15)	Cc = 0.05 to 0.3
		Permeability	IS 2720 (Part 17)	1x10 ⁻⁸ cm/s to 1x10 ⁻² cm/s
		Light Compaction	IS 2720 (Part 7)	
		Maximum Dry Density		1.2 g/cm ³ to 2.2 g/cm ³
		Optimum Moisture Content		5 % to 30 %
		Heavy Compaction	IS 2720 (Part 8)	
		Maximum Dry Density		1.4 g/cm ³ to 2.4 g/cm ³
		Optimum Moisture Content		5 % to 30 %
		California Bearing Ratio	IS 2720 (Part 16)	2 % to 40 %

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2.	Rock	Moisture Content	IS 13030	0.01 % to 10 %
		Water Absorption	IS 13030	0.02 % to 10 %
		Density	IS 13030	2.2 g/cm ³ to 2.8 g/cm ³
		Porosity	IS 13030	0.1 % to 50 %
		Specific Gravity	IS 1122	2 to 3.3
		Point Load Index	IS 8764	0.1 MPa to 15 MPa
		Unconfined Compressive Strength	IS 9143	5 MPa to 300 MPa

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