

Laboratory **Techpro Engineers Pvt. Ltd., (Laboratory Division), 131, 1st Floor, Patparganj, Industrial Area, Delhi**

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

Certificate Number **TC-6958**

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Validity **05.03.2018 to 04.03.2020**

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	Natural Moisture contents	IS: 2720 (Part II)-1973 RA 2015	0.10% to 50%
		Specific gravity Test (Fine Grained Soil)	IS: 2720 (Part III-sec1)-1980.RA 2016	1.2 to 3
		Specific gravity Test (Coarse Grained Soil)	IS: 2720 (Part III-sec2)-1980.RA 2016	1.2 to 3
		Grain Size analysis	IS: 2720 (Part-IV) –1985. RA 2015	1% to100% (80mm-75 μ)
		Hydrometer analysis	IS: 2720 (Part IV)-1985, RA 2015	1% to 100% (75 μ to1 μ)
		Liquid Limit	IS: 2720 (Part V)-1985. RA 2015	15% to 300%
		Plastic Limits	IS: 2720 (Part V)-1985. RA 2015	10% to 30%
		Shrinkage Limit	IS: 2720 (Part VI)-1972. RA 2016	2% to 25%
		Compaction Test (Light) (Dry Density and O.M.C)	IS: 2720 (Part VII)-1980. RA 2016	0 to 20% 0.50 to 2.50 (g/cc)
		Compaction Test (Heavy) (Dry Density and O.M.C)	IS: 2720 (Part VIII)-1983. RA 2015	0 to 20% 0.50 to 2.50 (g/cc)
		Unconfined compressive strength	IS: 2720 (Part X)-1991 RA 2015	C=0 to 4 kg/ cm ²
		Tri-axial Compression Test (Unconsolidated Un-drained)	IS:2720 (Part XI)-1993, RA 2016	C=0 to7.5 kg/cm ² $\phi = 0$ to 50°

Vivek Vardhan
Convenor

N. Venkateswaran
Program Director

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		Direct shear Test	IS: 2720 (Part XIII)1986 Raff-2015	C=0 to 1kg/cm ² Ø = 0 to 50°
		Consolidation Test	IS: 2720 (Part XV)-1986, RA 2016	0.10 kg/cm ² to 8.00 kg/cm ²
		CBR	IS 2720 – (Part 16) 1987, RA 2016	1 %to 35%
		Falling Head permeability test	IS 2720 – (Part 17) 1986, RA 2016	10 ⁻¹ to 10 ⁻⁸ cm/sec
		Constant Head permeability test	IS 2720- (Part 36)-1987, RA 2016	10 ⁻¹ to 10 ⁻⁸ cm/sec
		Free Swell Index	IS 2720 (Part 40) -1977, RA 2016	0 to 750%
2.	Rock	Unconfined Compressive strength	IS: 9143-1979 RA 2016	2 N/mm ² to 300 N/mm ²
		Water Absorption	IS 13030-1991, RA 2016	0.01% to 25%
		Density	IS 13030-1991, RA 2016	0.50 g/cc to 3.50 g/cc
		Point load test	IS 8764 -1998, RA 2014	0.1 to 25 N/mm ²