

Laboratory

Geotech Engineering Services, Plot No. F-111, Phase-VII, Industrial Area, Sector-73, S.A.S. Nagar, Mohali, Punjab

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number

TC-7798

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Validity

30.08.2018 to 29.08.2020

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.	BUILDING MATERIALS			
1.	Cement OPC/PPC/PSC	Normal Consistency	IS 4031 (Part 4)	20 % to 40 %
		Initial Setting Time	IS 4031 (Part 5)	15 minute to 300 minute
		Final Setting Time	IS 4031 (Part 5)	30 minute to 600 minute
		Soundness by Lechatelier Expansion	IS 4031 (Part 3)	0.1 mm to 10 mm
		Compressive strength	IS 4031 (Part 6)	2.0 N/mm <sup>2</sup> to 80.0 N/mm <sup>2</sup>
2.	Fine Aggregate	Sieve Analysis	IS 2386 (Part 1)	Up to 100% 0.075 mm to 10 mm
		Water Absorption	IS 2386 (Part 3)	0.1 % to 10 %
		Specific Gravity	IS 2386 (Part 3)	2 to 4
		Bulk Density (Loose)	IS 2386 (Part 3)	1 kg/L to 3 kg/L
		Bulk Density (Rodded)	IS 2386 (Part 3)	1 kg/L to 3 kg/L
3.	Flyash Bricks, Flyash Lime Bricks, Burnt Clay Bricks	Compressive Strength	IS 3495 (Part 1)	3.5 N/mm <sup>2</sup> to 35 N/mm <sup>2</sup>
		Water Absorption	IS 3495 (Part 2)	0.5 % to 30 %
4.	Concrete (Cubes and Cores)	Compressive strength	IS 516	10 N/mm <sup>2</sup> to 80 N/mm <sup>2</sup>
5.	Coarse Aggregate	Sieve Analysis	IS 2386 (Part 1)	Up to 100% (4.75 mm to 80 mm)
		Water Absorption	IS 2386 (Part 3)	0.1 % to 10 %
		Specific Gravity	IS 2386 (Part 3)	2 to 4
		Flakiness Index	IS 2386 (Part 1)	1 % to 50 %
		Elongation Index	IS 2386 (Part 1)	1 % to 50 %
		Crushing Value	IS 2386 (Part 4)	1% to 50 %
		Impact Value	IS 2386 (Part 4)	1 % to 50 %
		Bulk Density (Loose)	IS 2386 (Part 3)	1 kg/L to 3 kg/L
		Bulk Density (Rodded)	IS 2386 (Part 3)	1 kg/L to 3 kg/L

Mandeep kumar  
Convenor

Anuja Anand  
Program Manager

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6.	Concrete Paving Blocks	Compressive Strength	IS 15658	10 N/mm <sup>2</sup> to 100 N/mm <sup>2</sup>
		Water Absorption	IS 15658	1 % to 15%
II.	<b>SOIL AND ROCKS</b>			
1.	Soil	Grain Size Analysis	IS 2720 (Part 4)	Upto 100 % (2 $\mu$ m to 4.75 mm)
		Liquid Limit	IS 2720 (Part 5)	10 % to 50 %
		Plastic Limit	IS 2720 (Part 5)	10 % to 50 %
		Specific Gravity	IS 2720 (Part 3/Sec I & II)	1.1 to 3
		Light Compaction	IS 2720 (Part 7)	DD:(1 to 3.0) g/cc OMC:1 % to 35 %
		Heavy Compaction	IS 2720 (Part 8)	DD:(1 to 3.0) g/cc OMC:1 % to 35 %
III.	<b>MECHANICAL PROPERTIES OF METALS</b>			
1.	High Strength Deformed Bars, Steel TMT Bars (8 to 32 mm)	Nominal Mass	IS 1786	0.3 kg to 7 kg
		Tensile Strength	IS 1608	100 N/mm <sup>2</sup> to 1200 N/mm <sup>2</sup>
		Yield Stress	IS 1608	100 N/mm <sup>2</sup> to 1200 N/mm <sup>2</sup>
		Elongation	IS 1608	1 % to 50 %

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