

Laboratory GEOsystems Research & Consultants (India) Pvt. Ltd., 6-B, Shahu Layout, Khadgaon Road, Wadi, Nagpur, Maharashtra

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7942

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Validity 26.09.2018 to 25.09.2020

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

<b>I. BUILDING MATERIALS</b>				
1.	<b>Aggregate - Fine</b>	Sieve Analysis	IS 2386 (Part 1)	0.1 % to 100 % (0.075 mm to 4.75 mm)
2.	<b>Aggregate - Coarse</b>	Sieve Analysis	IS 2386 (Part 1)	0.1 % to 100 % (4.75 mm to 90 mm)
		Flakiness Index	IS 2386 (Part 1)	5 % to 40 %
		Elongation Index	IS 2386 (Part 1)	5 % to 40 %
		Impact Value	IS 2386 (Part 4)	1 % to 50 %
		Crushing Value	IS 2386 (Part 4)	1 % to 60 %
		Abrasion Value - Los Angles	IS 2386 (Part 4)	5 % to 40 %
3.	<b>Cement (OPC/ PPC/ PSC)</b>	Soundness by Le-chatelier Method	IS 4031 (Part 3)	0.1 mm to 10 mm
		Standard Consistency	IS 4031 (Part 4)	20 % to 40 %
		Setting Time (Initial)	IS 4031 (Part 5)	30 min. to 200 min.
		Setting Time (Final)	IS 4031 (Part 5)	100 min. to 600 min.
		Compressive Strength	IS 4031 (Part 6)	10 N/mm <sup>2</sup> to 70 N/mm <sup>2</sup>
4.	<b>Hardened Concrete Cube</b>	Compressive Strength	IS 516	10 N/mm <sup>2</sup> to 70 N/mm <sup>2</sup>
<b>II. SOIL AND ROCK</b>				
1.	<b>Rock</b>	Unconfined Compressive Strength	IS 9143	1 N/mm <sup>2</sup> to 200 N/mm <sup>2</sup>
		Point Load Strength	IS 8764	1 MN/m <sup>2</sup> to 35 MN/m <sup>2</sup>
2.	<b>Soil</b>	Moisture content	IS 2720 (Part 2)	0.1 % to 75 %
		Sieve Analysis	IS 2720 (Part 4)	0.1 % to 100 % (0.075 mm to 100 mm)
		Liquid Limit	IS 2720 (Part 5)	15 % to 70 %
		Plastic Limit	IS 2720 (Part 5)	5 % to 50 %
		Free Swell Index	IS 2720 (Part 40)	1 % to 100 %

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III.	<b>MECHANICAL PROPERTIES OF METALS</b>			
1.	<b>High Strength Deformed Steel Bars</b>	Mass per meter	IS 1786	0.2 kg/m to 9.5 kg/m
		Tensile Strength	IS 1608 Part 1)	250 N/mm <sup>2</sup> to 1000 N/mm <sup>2</sup>
		Elongation	IS 1608 (Part 1)	5 % to 30 %
		Yield Stress	IS 1608 (Part 1)	200 N/mm <sup>2</sup> to 800 N/mm <sup>2</sup>