

Laboratory **Artech Engineers, A/1, Pragati Vihar (W), Bahatarai Road, Bilaspur, Chhattisgarh**

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

Certificate Number **TC-7671**

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Validity **06.08.2018 to 05.08.2020**

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 MATERIAL			
1.	<b>Coarse Aggregate</b>	Sieve Analysis	IS 2386(Part 1)	0.1 % to 100 % (4.75 mm to 90 mm)
		Specific Gravity	IS 2386 (Part 3)	2 to 4
		Water absorption	IS 2386 (Part 3)	0.1 % to 25 %
		Bulk Density	IS 2386 (Part 3)	2 kg/L to 4 kg/L
		Flakiness Index	IS 2386 (Part 1)	1 % to 50 %
		Elongation Index	IS 2386 (Part 1)	1 % to 50 %
		Crushing Value	IS 2386 (Part 4)	5 % to 50 %
		10% Fineness Value	IS 2386 (Part 4)	1 Ton to 50 Ton
		Impact Value	IS 2386 (Part 4)	1 % to 50 %
2.	<b>Fine Aggregate</b>	Sieve Analysis	IS 2386 (Part 1)	0.1 % to 100 % (0.075 mm to 4.75 mm)
		Specific Gravity	IS 2386 (Part 3)	2 to 4
		Water Absorption	IS 2386 (Part 3)	0.2 % to 10 %
		Bulk Density	IS 2386 (Part 3)	1 kg/L to 3 kg/L
3.	<b>Brick</b>	Compressive Strength	IS 3495 (Part 1)	2 N/mm <sup>2</sup> to 15 N/mm <sup>2</sup>
		Water Absorption	IS 3495 (Part 2)	5 % to 30 %
4.	<b>Concrete</b>	Cube Compressive Strength	IS 516	5 N/mm <sup>2</sup> to 70 N/mm <sup>2</sup>
5.	<b>Soil</b>	Water Content	IS 2720 (Part 2)	1 % to 30 %
		Grain Size Analysis	IS 2720 (Part 4)	0.1 % to 100 % (0.075 mm to 4.75 mm)
		Liquid Limit	IS 2720 (Part 5)	5 % to 50 %
		Plastic Limit	IS 2720 (Part 5)	5 % to 50 %
		Light Compaction	IS 2720 (Part 7)	MDD: 1g/cc to 3.0 g/cc OMC: 5 % to 30.0 %
		Heavy Compaction	IS 2720 (Part 8)	MDD: 1g/cc to 3.0 g/cc OMC: 5 % to 30.0 %

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		California Bearing Ratio	IS 2720 (Part 16)	1 % to 50 %
		Free Swell Index	IS 2720 (Part 40)	1 % to 50 %
II.	<b>MECHANICAL PROPERTIES OF METALS</b>			
1.	<b>Reinforcement &amp; Structural Steel</b>	Tensile Strength	IS 1608	(100 to 1500) N/mm <sup>2</sup>
		Yield Stress	IS 1608	(100 to 1200) N/mm <sup>2</sup>
		% Elongation	IS 1608	10 % to 40 %