

Laboratory Asian Geotech Research Services (Mechanical Testing Laboratory),  
Plot No.: 4704/5004, Adimata Colony, Bhubaneswar, Odisha

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6270

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Validity 18.09.2017 to 17.09.2019

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.	Coarse Aggregate	Sieve Analysis	IS 2386 (Part-1)	4.75 mm to 80 mm
		Moisture Content	IS 2386 (Part- 3)	0.1% to 25 %
		Flakiness Index	IS 2386 (Part- 1)	1% to 50%
		Elongation Index	IS 2386 (Part- 1)	1% to 50%
		Aggregate Impact value	IS 2386 (Part- 4)	1% to 50%
		Los Angles Abrasion value	IS 2386 (Part- 4)	1% to 50 %
		Specific gravity	IS 2386 (Part- 3)	2 to 4
		Water absorption	IS 2386 (Part- 3)	0.1% to 6%
2.	Fine Aggregate	Sieve Analysis	IS 2386 (Part-1)	0.075 mm to 10 mm
		Moisture Content	IS 2386 (Part- 3)	0.1 % to 25%
		Specific Gravity	IS 2386 (Part- 3)	0.5 to 3.5
		Water absorption	IS 2386 (Part- 3)	0.02% to 4.5%
3.	Brick	Compressive strength	IS 3495 (Part- 1)	1 N/mm <sup>2</sup> to 30 N/mm <sup>2</sup>
		Water absorption	IS 3495 (Part- 2)	0.5% to 35%
		Efflorescence	IS 3495 (Part- 3)	Qualitative
4.	Cement	Fineness by dry sieving (% retained)	IS 4031 (Part- 1)	0.1 % to 10 %
		Consistency	IS 4031 (Part- 4)	10% to 40 %

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Setting time Initial	IS 4031 (Part- 5)	30 min to 200 min
		Setting time Final	IS 4031 (Part- 5)	100 min to 600 min
		Soundness by Le-Chatelier Method	IS 4031 (Part- 3)	0.1 mm to 10 mm
		Compressive strength	IS 4031 (Part- 6)	1 N/mm <sup>2</sup> to 60 N/mm <sup>2</sup>
<b>II.</b>	<b>MECHANICAL PROPERTIES OF METALS</b>			
<b>1.</b>	<b>Ferrous Materials: Reinforcement Steel</b>	Ultimate Tensile strength	IS 1608	100 N/mm <sup>2</sup> to 600N/mm <sup>2</sup>
		Yield Stress		50 N/mm <sup>2</sup> to 750 N/mm <sup>2</sup>
		Elongation		1% to 60%
<b>III.</b>	<b>SOIL &amp; ROCK</b>			
<b>1.</b>	<b>Soil</b>	Moisture Content	IS 2720 (Part- 2)	0.1% to 40%
		Specific gravity	IS 2720 (Part- 3)-Sec1 & 2	1 to 4
		Particle Size Distribution (Dry Sieve)	IS 2720 (Part- 4)	0.075 mm to 100 mm
		Liquid Limit	IS 2720 (Part- 5)	1% to 300 %
		Plastic Limit	IS 2720 (Part- 5)	Upto 50%
		Light Compaction	IS 2720 - (Part- 7)	MDD: 0.5 g/cc to 2.5g/cc OMC:1 to 15%
		Heavy Compaction	IS 2720 - (Part- 8)	MDD:1 g/cc to 3.0 g/cc OMC:1% to 25%