

Laboratory **Guddu Engineering Consultancy Services, Village Dhurali, Post Office Bara, Tehsil & Dist. Ambala, Haryana**

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

Certificate Number **TC-8034**

Page 1 of 2

Validity **26.10.2018 to 25.10.2020**

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>				
<b>1.</b>	<b>Coarse Aggregate</b>	Sieve Analysis	IS 2386 (Part 1)	0 to 100 % (Sieve Size: 4.75 mm to 125 mm)
		Flakiness Index	IS 2386 (Part 1)	5 % to 70 %
		Elongation Index	IS 2386 (Part 1)	5 % to 70 %
		Specific Gravity	IS 2386 (Part 3)	2 to 4
		Water Absorption	IS 2386 (Part 3)	0.1 % to 7 %
		Bulk Density	IS 2386 (Part 3)	1.2 Kg/L to 4 Kg/L
		Crushing Value	IS 2386 (Part 4)	5 % to 50 %
		10 percent Fines Value	IS 2386 (Part 4)	5 T to 50 T
		Impact Value	IS 2386 (Part 4)	5 % to 50 %
		<b>2.</b>	<b>Fine Aggregate</b>	Sieve Analysis
% Finer than 75 Micron	IS 2386 (Part 1)			0.1 % to 50 %
Specific Gravity	IS 2386 (Part 3)			2 to 4
Water Absorption	IS 2386 (Part 3)			0.1 % to 10 %
Bulk Density	IS 2386 (Part 3)			1 Kg/L to 3 Kg/L
<b>3.</b>	<b>Brick</b>	<b>Dimensions</b> Length Width Thickness	IS 1077	4000 mm to 5000 mm 1500 mm to 3000 mm 1500 mm to 3000 mm
		Compressive Strength	IS 3495 (Part 1)	1 N/mm <sup>2</sup> to 15 N/mm <sup>2</sup>
		Water Absorption	IS 3495 (Part 2)	5 % to 30 %
		Efflorescence	IS 3495 (Part 3)	Qualitative
		<b>4.</b>	<b>Solid/ Hollow Block</b>	<b>Dimensions</b> Length Width Thickness

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Page 2 of 2

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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
		Compressive Strength	IS 2185 (Part 1)	0.5 N/mm <sup>2</sup> to 80 N/mm <sup>2</sup>
		Water Absorption	IS 2185 (Part 1)	0.01 % to 10 %
		Block Density	IS 2185 (Part 1)	500 kg/m <sup>3</sup> to 2500 kg/m <sup>3</sup>
5.	<b>Paver Block</b>	Compressive Strength	IS 15658	1 N/mm <sup>2</sup> to 80 N/mm <sup>2</sup>
		Water Absorption	IS 15658	0.1 % to 25 %
6.	<b>Concrete</b>	Compressive Strength	IS 516	10 N/mm <sup>2</sup> to 55 N/mm <sup>2</sup>
II.	<b>SOIL &amp; ROCK</b>			
1.	<b>Soil</b>	Moisture content	IS 2720 (Part 2)	1 % to 50 %
		Specific Gravity	IS 2720 (Part 3)	2 to 4
		Sieve analysis	IS 2720 (Part 4)	0 to 100 % (Sieve Size: 75 µm to 4.75 mm)
		Liquid limit	IS 2720 (Part 5)	10 % to 80 %
		Plastic limit	IS 2720 (Part 5)	NP to 60 %
		Light compaction	IS 2720 (Part 7)	MDD: 1.2 g/cc to 3 g/cc OMC: 10 % to 30 %
		Heavy compaction	IS 2720 (Part 8)	MDD: 1.2 g/cc to 2.5 g/cc OMC: 10 % to 30 %
		Unconfined compressive strength	IS 2720 (Part 10)	0.03 kg/cm <sup>2</sup> to 3 kg/cm <sup>2</sup>
		Direct Shear Test	IS 2720 (Part 13)	φ = 20° to 40° C = 0.01 kg/cm <sup>2</sup> to 2 kg/cm <sup>2</sup>
		CBR Value	IS 2720 (Part 16)	1 % to 60 %
		Permeability Test	IS 2720 (Part 17)	0 to 100 cm/s