Laboratory	**Shree Engineering Lab, 3-E-53, Kudi Bhagtasani Housing Board, Jodhpur, Rajasthan**	
Accreditation Standard	**ISO/IEC 17025: 2005**	
Certificate Number	**TC-7077**	**Page 1 of 3**
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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

MECHANICAL TESTING

I.	**BUILDING MATERIAL**			
1.	**Coarse Aggregate**	Sieve Analysis	IS 2386 (Part 1)	0 % to 100 % (4.75 mm to 125 mm)
		Impact Value	IS 2386 (Part 4)	5 % to 60 %
		Crushing Value	IS 2386 (Part 4)	5 % to 60 %
		Water Absorption	IS 2386 (Part 3)	0.1 % to 20 %
		Specific Gravity	IS 2386 (Part 3)	1 to 4
		Flakiness Index	IS 2386 (Part 1)	2 % to 70 %
		Elongation Index	IS 2386 (Part 1)	2 % to 70 %
		10 % Fineness Value	IS 2386 (Part 4)	0.5 Ton to 30 Ton
2.	**Fine Aggregate**	Sieve Analysis	IS 2386 (Part 1)	0.1 % to 100% 75 µm to 10 mm
		Water Absorption	IS 2386 (Part 3)	0.1 % to 20 %
		Specific Gravity	IS 2386 (Part 3)	1 to 4
3.	**Bitumen**	Penetration Test	IS 1203	1 mm to 100 mm
		Softening Point	IS 1205	25 °C to 200 °C
		Specific Gravity	IS 1202	0.7 to 1.4
		Ductility Test	IS 1208	0.1 cm to 100 cm
4.	**Bituminous Mix/Core**	Bitumen Content	IRC SP 11	1 % to 7 %
		Marshall Stability	ASTM D 6927 & MS-2	40 kg to 3000 kg
5.	**Bricks**	Compressive Strength	IS 3495 (Part 1)	2 N/mm^2 to 25 N/mm^2
		Dimension	IS 1077 IS 12894 IS 13757	650 mm to 5000 mm
		Water Absorption	IS 3495 (Part 2)	0.1 % to 30 %
		Efflorence	IS 3495 (Part 3)	Qualitative
6.	**Paver Block**	Compressive Strength	IS 15658	5 N/mm^2 to 150 N/mm^2
		Water Absorption	IS 15658	0.1 % to 15 %
7.	**Cement PPC & OPC**	Consistency	IS 4031 (Part 4)	10 % to 40 %
		Initial Setting Time	IS 4031 (Part 5)	10 minute to 300 minute

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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
		Final Setting Time (FST)	IS 4031 (Part 5)	30 minute to 800 minute
		Soundness (by Le-Chatelier)	IS 4031 (Part 3)	0.1 mm to 10 mm
		Fineness (by Dry Sieve Method)	IS 4031 (Part 1)	0.1 % to 30 %
		Compressive Strength	IS 4031 (Part 6)	10 N/mm^2 to 70 N/mm^2
8.	**Concrete (Hardened)**	Slump	IS 1199	Upto 250 mm
		Flexural Strength	IS 516	1 N/mm^2 to 10 N/mm^2
		Compressive strength	IS 516	5 N/mm^2 to 80 N/mm^2
II.	**MECHANICAL PROPERTIES OF METALS**			
1.	**Steel Reinforcement Bar**	Ultimate Tensile Strength	IS 1608 IS 1786	160 N/mm^2 to 900 N/mm^2
		Yield Strength	IS 1608 IS 1786	100 N/mm^2 to 800 N/mm^2
		% Elongation	IS 1608 IS 1786	5 % to 40 %
		Bend Test	IS 1599	Qualitative Mandrel Diameter (32 mm, 48 mm, 60 mm, 72 mm, 74 mm, 80 mm and 100 mm)
		Re- Bend Test	IS 1786	Qualitative Mandrel Diameter (32 mm, 48 mm, 60 mm, 72 mm, 74 mm, 80 mm and 100 mm)
		Weight per meter	IS 1786	0.075 kg/m to 12.5 kg/m

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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
III.	**SOIL & ROCK**			
1.	**Soils**	Specific Gravity	IS 2720 (Part 3 & Section 1)	1 to 4
		Grain Size Analysis (Dry Sieve Analysis)	IS 2720 (Part 4)	0.1 % to 100 % (4.75 mm to 125 mm)
		Grain Size Analysis (Wet Sieve Analysis)	IS 2720 (Part 4)	0.1 % to 100 % (75 µm to 2 mm)
		Atterberg's Limit Liquid Limit	IS 2720 (Part 5)	5 % to 100 %
		Atterberg's Limit Plastic Limit	IS 2720 (Part 5)	0 % to 20 %
		Light Compaction-OMC (Proctor compaction)	IS 2720 (Part 7)	4 % to 30 %
		Light Compaction-MDD (Proctor compaction)	IS 2720 (Part 7)	1 g/cc to 3 g/cc
		Heavy Compaction (Modified proctor compaction) - OMC	IS 2720 (Part 8)	4 % to 30 %
		Heavy Compaction (Modified proctor compaction) - MDD	IS 2720 (Part 8)	1 g/cc to 3 g/cc
		Free Swell Index	IS 2720 (Part 40)	1 % to 200 %
		California Bearing Ratio (CBR)	IS 2720 (Part 16)	1 % to 100 %

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