

Laboratory **S&J Material Testing & Engineers, Plot No. 126 to 128, GIDC
Kabilpore, Navsari, Gujarat**

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

Certificate Number **TC-7600**

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Validity **25.07.2018 to 24.07.2020**

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.	SOIL & ROCK			
1.	Soil	Gradation (by sieve analysis)	IS 2720 (Part 4)	0.1 % to 100 % (0.075 mm to 75 mm)
		Liquid Limit	IS 2720 (Part 5)	5 % to 70 %
		Plastic Limit	IS 2720 (Part 5)	5 % to 45 %
		Light compaction	IS 2720 (Part 7)	MDD: 1 g/cc to 2.50 g/cc OMC: 3 % to 30 %
		Heavy compaction	IS 2720 (Part 8)	MDD: 1 g/cc to 2.50 g/cc OMC: 3 % to 30 %
		California Bearing Ratio	IS 3495 (Part 3)	1 % to 50 %
		Free Swell Index	IS 2720 (Part 40)	Upto 100 %
		Specific gravity	IS 2720 (Part 3 / Section 1)	1 to 3
		Field Dry Density	IS 2720 (Part 28)	1 g/cc to 3 g/cc
II.	BUILDING MATERIALS			
1.	Fine aggregate	Sieve Analysis	IS 2386 (Part 1)	0.1 % to 100 % (0.075 mm to 4.75 mm)
		Specific Gravity	IS 2386 (Part 3)	1.5 to 3.5
		Water Absorption	IS 2386 (Part 3)	1 % to 10 %
		Material Finer than 75 µm	IS 2386 (Part 1)	1 % to 20 %
2.	Coarse Aggregate	Sieve Analysis	IS 2386 (Part 1)	0.1 % to 100 % (0.075 mm to 75 mm)
		Specific Gravity	IS 2386 (Part 3)	1.5 to 3.5
		Water Absorption	IS 2386 (Part 3)	1 % to 10 %
		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 Angeles Abrasion Value	IS 2386 (Part 4)	1 % to 50 %

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3.	Hardened Concrete	Compressive Strength (Cube)	IS 516	10 N/mm ² to 60 N/mm ²
4.	Fresh Concrete	Slump test	IS 1199	50 mm to 300 mm
5.	Bricks	Dimension Length Width Height	IS 1077	3800 mm to 5000 mm 1800 mm to 2500 mm 500 mm to 1600 mm
		Water absorption	IS 3495 (Part 2)	1 % to 40 %
		Compressive strength	IS 3495 (Part 1)	1 N/mm ² to 15 N/mm ²
		Efflorescence	IS 3495 (Part 3)	Qualitative
6.	Concrete Paver Blocks	Compressive strength	IS 15658	7.5 N/mm ² to 60 N/mm ²
		Water absorption	IS 15658	1 % to 10 %
7.	Cements (OPC and PPC)	Consistency	IS 4031 (Part 4)	20 % to 40 %
		Initial setting time	IS 4031 (Part 5)	20 minute to 300 minute
		Final setting time		50 minute to 600 minute
		Compressive strength	IS 4031 (Part 6)	10 N/mm ² to 70 N/mm ²
		Soundness (by Le-chatelier Method)	IS 4031 (Part 3)	1 mm to 10 mm
		Fineness (by blaine air permeability)	IS 4031 (Part 2)	150 m ² /kg to 450 m ² /kg