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 Page 1 of 2

Validity 25.07.2018 to 24.07.2020 Last Amended on --

	SI.	Product / Material of Test	Specific Test Performed	!	Range of Testing / Limits of Detection
į				performed	

## **MECHANICAL TESTING**

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Soil	Gradation (by sieve analysis)	IS 2720 (Part 4)	0.1 % to 100 % (0.075 mm to 75 mm)
		IS 2720 (Part 5)	5 % to 70 %
			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
BUILDING MATERIA	ALS		
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 %
Coarse Aggregate	Sieve Analysis	IS 2386 (Part 1)	0.1 % to 100 % (0.075 mm to 75 mm)
			1.5 to 3.5
		IS 2386 (Part 3)	1 % to 10 %
	4		1 % to 50 %
		\$	1 % to 50 %
		\$	1 % to 50 %
	Los Angeles Abrasion Value	IS 2386 (Part 4)	1 % to 50 %
	Fine aggregate	Liquid Limit Plastic Limit Light compaction  Heavy compaction  California Bearing Ratio Free Swell Index Specific gravity Field Dry Density  BUILDING MATERIALS  Fine aggregate Sieve Analysis  Specific Gravity Water Absorption Material Finer than 75 µm Coarse Aggregate Sieve Analysis  Specific Gravity Water Absorption Flakiness Index Elongation Index Aggregate Impact Value Los Angeles Abrasion	Liquid Limit IS 2720 (Part 5) Plastic Limit IS 2720 (Part 5) Light compaction IS 2720 (Part 7)  Heavy compaction IS 2720 (Part 8)  California Bearing Ratio IS 3495 (Part 3) Free Swell Index IS 2720 (Part 40) Specific gravity IS 2720 (Part 3 / Section 1) Field Dry Density IS 2720 (Part 28)  BUILDING MATERIALS  Fine aggregate Sieve Analysis IS 2386 (Part 1)  Specific Gravity IS 2386 (Part 3) Water Absorption IS 2386 (Part 3) Material Finer than 75 µm IS 2386 (Part 1)  Coarse Aggregate Sieve Analysis IS 2386 (Part 1)  Specific Gravity IS 2386 (Part 1)  Coarse Aggregate Sieve Analysis IS 2386 (Part 1)  Specific Gravity IS 2386 (Part 1)  Flakiness Index IS 2386 (Part 1)  Elongation Index IS 2386 (Part 1)  Aggregate Impact Value IS 2386 (Part 4)  Los Angeles Abrasion IS 2386 (Part 4)

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
3.	Hardened Concrete	Compressive Strength (Cube)	IS 516	10 N/mm <sup>2</sup> to 60 N/mm <sup>2</sup>
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 <sup>2</sup> to 15 N/mm <sup>2</sup>
		Efflorescence	IS 3495 (Part 3)	Qualitative
6.	Concrete Paver Blocks	Compressive strength	IS 15658	7.5 N/mm <sup>2</sup> to 60 N/mm <sup>2</sup>
		Water absorption	IS 15658	1 % to 10 %
7.	Cements	Consistency	IS 4031 (Part 4)	20 % to 40 %
	(OPC and PPC)	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 <sup>2</sup> to 70 N/mm <sup>2</sup>
		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 <sup>2</sup> /kg to 450 m <sup>2</sup> /kg

Naveen Jangra Convenor