

Laboratory **Geo Sign Engineering Services, GSES House, Post Office Street, Jamnagar, Gujarat**

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

Certificate Number **TC-5449**

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Validity **01.04.2018 to 31.03.2020**

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.	BUILDING MATERIALS			
1.	Burnt Clay Bricks & Fly Ash Bricks	Compressive strength	IS 3495 (Part 1): 1992 (RA 2016)	2.5 N/mm ² to 20 N/mm ²
		Effloresces	IS 3495 (Part 3): 1992 (RA 2016)	Qualitative
		Water absorption	IS 3495 (Part 2): 1992 (RA 2016)	2 % to 25 %
		Dimension	IS 1077:1992 (RA 2016)	L=4500 mm to 4700 mm W=2100 mm to 2300 mm H =1300 mm to 1500 mm
2.	Aggregates (Coarse)	Sieve analysis	IS 2386 (Part 1): 1963 (RA 2016)	4.75mm to 80 mm (0.1 % to 100.0 %)
		Flakiness Index	IS 2386 (Part 1): 1963 (RA 2016)	5 % to 40 %
		Elongation Index	IS 2386 (Part 1): 1963 (RA 2016)	5 % to 40 %
		Specific Gravity	IS 2386 (Part 3): 1963 (RA 2016)	1.50 to 3.50
		Water absorption	IS 2386 (Part 3): 1963 (RA 2016)	0.5 % to 5 %
		Crushing Value	IS 2386 (Part 4): 1963 (RA 2016)	5 % to 50 %
3.	Aggregates (Coarse)	Impact Value	IS 2386 (Part 4): 1963 (RA 2016)	5 % to 50 %
		Los Angeles abrasion value	IS 2386 (Part 4): 1963 (RA 2016)	5 % to 50 %
		10% Fine Value	IS 2386 (Part 4): 1963 (RA 2016)	10 kN to 490 kN
4.	Aggregates (Fine)	Sieve analysis	IS 2386 (Part 1): 1963 (RA 2016)	150 µm to 10 mm (0.1 % to 100.0 %)

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Convenor

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Program Director

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		Specific Gravity	IS 2386 (Part 3): 1963 (RA 2016)	1.50 to 3.50
		Water absorption	IS 2386 (Part 3): 1963 (RA 2016)	1 % to 10 %
5.	Cement (OPC/ PPC)	Consistency	IS 4031 (Part 4): 1988 (RA 2014)	25 % to 40 %
		Initial Setting Time	IS 4031 (Part 5): 1988 (RA 2014)	30 minutes to 200 minutes
		Final Setting time	IS 4031 (Part 5): 1988 (RA 2014)	100 minutes to 600 minutes
		Compressive strength	IS 4031 (Part 6): 1988 (RA 2014)	10 N/mm ² to 70 N/mm ²
		Soundness with Le-Chattalier method	IS 4031 (Part-3):1988 (RA 2014)	0.05 mm to 10 mm
		Fineness by blaine air permeability	IS 4031 (Part 2): 1999 (RA 2013)	100 m ² /kg to 400 m ² /kg
6.	Concrete	Compressive strength	IS 516:1959 (RA 2013)	10 N/mm ² to 70 N/mm ²
		Flexural strength	IS 516:1959 (RA 2013)	2.0 N/mm ² to 8.0 N/mm ²
7.	Paver Block	Water absorption	IS 15658 (Annex-C) 2006 (RA 2011)	1% to 15%
		Compressive Strength	IS 15658 (Annex-D) 2006 (RA 2011)	5 N/mm ² to 60 N/mm ²
II.	SOIL & ROCK			
1.	Soil	Grain size analysis	IS 2720 (Part 4): 1985 (RA 2015)	100 m ² /kg to 400 m ² /kg
		Liquid Limit	IS 2720 (Part 5): 1985 (RA 2015)	75 μm to 40 mm (0.1 % to 100.0 %)
		Plastic Limit	IS 2720 (Part 5): 1985 (RA 2015)	25 % to 120 %
		Shrinkage Limit	IS 2720 (Part 6): 1985 (RA 2011)	15 % to 40 %

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		Light compaction	IS 2720 (Part 7): 1985 (RA 2011)	MDD-1.0 g/cc to 2.10 g/cc
		Heavy compaction	IS 2720 (Part 8): 1985 (RA 2015)	MDD-1.4 g/cc to 2.60 g/cc OMC-2 % to 30.0 %
		California Bearing ratio	IS 2720 (Part 16): 1985 (RA 2011)	1 % to 60 %

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