

Laboratory **Creative Material Testing Laboratory, G.I.D.C. Area, Plot No. 30, Dharampur, Porbandar, Gujarat**

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

Certificate Number **TC-6120**

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Validity **10.08.2017 to 09.08.2019**

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>Bitumen</b>	Penetration	IS 1203	10 to 120
		Ductility	IS 1203	20 cm to 80 cm
		Softening Point	IS 1205	20 °C to 70 °C
		Absolute Viscosity	IS 1206	500 poises to 3500 poises
		Kinematic Viscosity	IS 1206	50 cSt to 400 cSt
<b>2.</b>	<b>Bituminous Mix</b>	Specific Gravity	IS 1202	0.8 to 1.5
		Binder Content	ASTM D 2172	1 % to 10 %
		Marshal Stability	ASTM D 6927	2 kN to 30 kN
<b>3.</b>	<b>Cement (OPC/PPC)</b>	Flow Test	ASTM D 6927	1 mm to 10 mm
		Consistency	IS 2386 (Part 4)	25 % to 40 %
		Initial Setting Time	IS 4031 (Part 5)	30 minute to 200 minute
		Final Setting Time	IS 4031 (Part 5)	100 minute to 600 minute
		Compressive Strength	IS 4031 (Part 6)	10 N/mm <sup>2</sup> to 70 N/mm <sup>2</sup>
<b>4.</b>	<b>Concrete</b>	Soundness by Le-Chattalier method	IS 4031 (Part 3)	0.05 mm to 10 mm
		Fineness by dry sieving	IS 4031 (Part 2)	0.1 % to 10 %
		Compressive Strength	IS 516	10 N/mm <sup>2</sup> to 70 N/mm <sup>2</sup>
		Flexural strength	IS 516	2.0 N/mm <sup>2</sup> to 8.0 N/mm <sup>2</sup>
<b>5.</b>	<b>Aggregates (Coarse)</b>	Sieve analysis	IS 2386 (Part 1)	4.75 mm to 90 mm (0.1 % to 100.0 %)
		Flakiness Index	IS 2386 (Part 1)	5 % to 40 %
		Elongation Index	IS 2386 (Part 1)	5 % to 40 %
		Specific Gravity	IS 2386 (Part 3)	1.50 to 3.50
		Water absorption	IS 2386 (Part 3)	0.5 % to 5 %
		Crushing Value	IS 2386 (Part 4)	5 % to 50 %
		Impact Value	IS 2386 (Part 4)	5 % to 50 %
		Los Angeles abrasion value	IS 2386 (Part 4)	5 % to 50 %

**Pankaj Goyal**  
Convenor

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Program Director

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6.	<b>Aggregates (Fine)</b>	Sieve analysis	IS 2386 Part-1	150 $\mu$ to 10 mm (0.1 % to 100 %)
		Specific Gravity	IS 2386 Part-3	1.50 to 3.50
		Water absorption	IS 2386, Part-3	1 % to 10 %
7.	<b>Paver Block</b>	Water absorption	IS 15658 (Annex. C)	1 % to 15 %
		Compressive Strength	IS 15658 (Annex. D)	5 N/mm <sup>2</sup> to 60 N/mm <sup>2</sup>
8.	<b>Burnt Clay Bricks &amp; Fly Ash Bricks</b>	Compressive Strength	IS 3495 Part-1	2.5 N/mm <sup>2</sup> to 20 N/mm <sup>2</sup>
		Efflorescence	IS 3495 Part-3	Qualitative
		Water absorption	IS 3495 Part-2	2 % to 25 %
		Dimension	IS 1077	L=4500 mm to 4700 mm W=2100 mm to 2300 mm H=1300 mm to 1500 mm
<b>II.</b>	<b>SOIL &amp; ROCK</b>			
1.	<b>Soil</b>	Grain size analysis	IS 2720 Part 4	0.1 % to 100 % (75 $\mu$ m to 40 mm)
		Liquid Limit	IS 2720 Part 5	10 % to 80 %
		Plastic Limit	IS 2720 Part 5	1 % to 40 %
		Light Compaction	IS 2720 Part 7	MDD: 1 gm/cc to 2.10 gm/cc OMC: 5 % to 40 %
		Heavy Compaction	IS 2720 Part-8	MDD: 1 gm/cc to 2.10 gm/cc OMC: 2 % to 30 %
		California Bearing ratio	IS 2720 (Part 16)	1 % to 60 %
<b>III.</b>	<b>METALS &amp; ALLOYS</b>			
1.	<b>Steel</b>	Yield stress	IS 1608	100 N/mm <sup>2</sup> to 600 N/mm <sup>2</sup>
		Tensile strength	IS 1608	100 N/mm <sup>2</sup> to 700 N/mm <sup>2</sup>
		Elongation percentage	IS 1608	5% to 40%

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