

**Laboratory**                      **Material Testing Laboratory - The Gujarat Institute of Civil Engineers & Architects, Nirman Bhavan, Ellsibridge, Ahmedabad, Gujarat**  
**Accreditation Standard**      **ISO/IEC 17025: 2005**  
**Certificate Number**           **TC-7949** *(in lieu of T-4162)*                      **Page 1 of 2**  
**Validity**                            **29.09.2018 to 28.09.2020**                      **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
<b><u>MECHANICAL TESTING</u></b>				
<b>I.</b>	<b>SOIL &amp; ROCK</b>			
<b>1.</b>	<b>Soil &amp; Rock</b>	Sieve Analysis (0.075 to 20.0 mm)	IS 2720:1985, (Part - 4) RA 2015	0.01% to 100.00 % (0.075 to 20.0 mm)
		Liquid limit & Plastic Limit	IS 2720:1985, (Part - 5) RA 2015	1 % to 300 % 1 % to 50 %
		Light Compaction	IS 2720:1985, (Part – 7) RA 2011	1 g/cc to 2.50 g/cc
				2 % to 30.0 %
		Heavy Compaction	IS 2720:1985, (Part – 8) RA 2015	1 g/cc to 2.50 g/cc
				2 % to 30.0 %
		Specific gravity	IS 2720:1980, (Part-3) RA 2011	1 to 3
<b>II.</b>	<b>BUILDING MATERIALS</b>			
<b>1.</b>	<b>Coarse Aggregate</b>	Sieve analysis	IS 2386:1963, (Part-1) RA 2016	0.01% to 100.00 % (4.75 mm to 80.0 mm)
		Specific gravity	IS 2386:1963, (Part-3), RA 2016	1.0 to 4.0
		Water absorption	IS 2386:1963, (Part-3), RA 2016	0.1 % to 10 %
		Flakiness Index	IS 2386:1963, (Part-1), RA 2016	1.0 % to 75 %
		Elongation Index	IS 2386:1963, (Part-1), RA 2016	1.0 % to 75 %

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		Impact value	IS 2386 :1963, (Part-4) RA 2016	1% to 50 %
<b>2.</b>	<b>Cement</b>	Standard Consistency	IS 4031:1988, (Part - 4) RA 2013	20% to 40 %
		Initial setting time	IS 4031:1988, (Part - 5) RA 2013	10 minute to 300 minute
		Final setting time		10 minute to 800 minute
		Compressive strength	IS 4031:1988, ( Part - 6) RA 2013	10 to 85 N/mm <sup>2</sup>
		Fineness by dry sieving	IS 4031:1996, (Part – 1), RA 2016	0.1% to 25%
<b>3.</b>	<b>Concrete cube</b>	Cube Compressive Strength	IS 516:1959 RA 2013	5 N/mm <sup>2</sup> to 85 N/mm <sup>2</sup>
<b>4.</b>	<b>Paver blocks</b>	Compressive Strength	IS 15658:2006 RA 2016	5 N/mm <sup>2</sup> to 85 N/mm <sup>2</sup>
<b>5.</b>	<b>Bricks</b>	Dimensions and Tolerances	IS 1077:1992 RA 2011	500 mm to 5000 mm (20 Bricks)
		Water absorption	IS 3495:1992, (Part-2) RA 2011	1% to 50 %
		Compressive Strength	IS 3495:1992, (Part-1) RA 2011	1 N/ mm <sup>2</sup> to 15 N/ mm <sup>2</sup>
		Efflorescence	IS 3495:1992, (Part-3) RA 2011	Visual Assessment
<b>6.</b>	<b>Fine Aggregate</b>	Sieve analysis	IS 2386:1963, (Part-1) RA 2016	0.01% to 100.00 % (0.15 mm to 10 mm)
		Specific gravity	IS 2386:1963, (Part-3), RA 2016	1.0 to 4.0
		Water absorption	IS 2386:1963, (Part-3), RA 2016	0.1 % to 10 %