

Laboratory **Shikhar Consultants, G-3, Ground Floor & Basement, Mayu Towers, Shyamal Cross Road, Anand Nagar Road, Satellite, Ahmedabad, Gujarat**

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

Certificate Number **TC-6487**

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Validity **03.11.2017 to 02.11.2019**

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>				
1.	<b>Coarse Aggregate</b>	Gradation of aggregate	IS:2386(Part 1)-1963, (RA 2016)	4.75 mm to 80 mm
		Impact Value	IS:2386(Part 4)-1963, (RA 2016)	1.0% to 50%
		Crushing Value	IS:2386(Part 4)-1963, (RA 2016)	1.0% to 50%
		Specific Gravity	IS:2386(Part 3)-1963, (RA 2016)	2.5 to 3
		Water Absorption	IS:2386(Part 3)-1963, (RA 2016)	0.1 % to 4%
		Flakiness Index	IS:2386(Part 1)-1963, (RA 2016)	1% to 50%
		Elongation Index	IS:2386(Part 1)-1963, (RA 2016)	1% to 50%
2.	<b>Fine Aggregate</b>	Gradation of aggregate	IS:2386(Part 1)-1963, (RA 2016)	75 µm to 4.75 mm
		Specific Gravity	IS:2386(Part 3)-1963, (RA 2016)	2.5 to 3
		Water Absorption	IS:2386(Part 3)-1963, (RA 2016)	0.1 % to 4%
3.	<b>Bricks</b>	Compressive strength	IS:3495(Part 1)-1992 (RA 2011)	3 MPa to 40 MPa
		Water Absorption	IS:3495(Part 2)-1992 (RA 2011)	0.5% to 25%
		Efflorescence	IS:3495(Part 3)-1992, (RA 2011)	Qualitative
		Dimension Length Width Height	IS:1077-1992 (RA 2011)	3720 mm to 4680 mm 1760 mm to 2160 mm 1440 mm to 1840 mm

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4.	Bitumen	Softening Point	IS:1205-1978, (RA 2009)	30°C to 90°C
		Penetration	IS:1203-1978, (RA 2009)	1.0 to 150 (1/10 <sup>th</sup> mm)
		Ductility	IS:1208-1978, (RA 2009)	10 cm to 100 cm
		Absolute Viscosity	IS:1206-1978, (RA 2009)	360 Poise to 3600 Poise
5.	Concrete	Slump(Fresh)	IS:1199-1959, (RA 2013)	50 mm to 240 mm
		Compressive Strength	IS:516-1959, (RA 2013)	9 MPa to 44 MPa
II.	SOIL AND ROCK			
1.	Soil	Gradation Sieve Size	IS:2720(Part 4)-1985 (RA 2015)	75 µm to 4.75 mm
		Atterberg's Limit : Liquid Limit Plastic Limit	IS:2720(Part 5)-1985 (RA 2015)	1% to 120% 1% to 60%
		Moisture Content	IS:2720(Part 2)-1973 (RA 2015)	1% to 50%
		Light Weight Compaction Maximum Dry Density Optimum Moisture Content	IS:2720(Part 7)-1980 (RA 2011)	1.0 g/cc to 2.5 g/cc 1.0 % to 20%
		Heavy Weight Compaction Maximum Dry Density Optimum Moisture Content	IS:2720(Part 8)-1983 (RA 2015)	1.0 g/cc to 2.5 g/cc 1.0 % to 20%
		California Bearing ratio (CBR)	IS:2720(Part 16)-1987 (RA 2011)	1.0 % to 80 %
		Specific Gravity	IS:2720(Part 5), Section - II	2.2 to 2.9
		Standard Penetration Test	IS:2131-1981, (RA 2011)	1 to 100