

Laboratory **H.B.Patel Institute of Diploma Engineering Technology & Civil Testing Laboratory, Limbodra, Tal – Lunawada, Dist- Mahisagar, Gujarat**

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

Certificate Number **TC-7383**

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Validity **09.06.2018 to 08.06.2020**

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.	Hardened Concrete	Compressive Strength	IS 516: 1959 (RA 2013)	10 N/mm ² to 80 N/mm ²
2.	Brick Clay, Fly Ash Bricks, Fly Ash Lime Bricks	Compressive Strength	IS 3495 (Part 1): 1992 (RA 2011)	3.5 N/mm ² to 7.5 N/mm ²
		Water Absorption	IS 3495 (Part 2) : 1992 (RA 2011)	2 % to 25 %
		Efflorescence	IS 3495 (Part 3): 1992 (RA 2011)	Qualitative
		Dimension -Length -Width -Height	IS 1077: 1992 (RA 2018)	4520mm to 4680mm 2160mm to 2240mm 1360mm to 1440mm
3.	Coarse Aggregate	Sieve Analysis	IS 2386 (Part 1): 1963 (RA 2016)	(0.1% to 100%) 4.75mm to 125mm
		Flakiness Index	IS 2386 (Part 1): 1963 (RA 2016)	2 % to 40 %
		Elongation Index	IS 2386 (Part 1): 1963 (RA 2016)	2 % to 40 %
		Impact value	IS 2386 (Part 4): 1963 (RA 2016)	1.0% to 60 %
		Loss Angles Abrasion Value	IS:2386 (Part 4):1963 (RA 2016)	1% to 60 %
		Crushing Value	IS 2386 (Part 4): 1963 (RA 2016)	1 % to 60 %
		Specific Gravity	IS 2386 (Part 3): 1963 (RA 2016)	2.5 % to 3.5
		Water Absorption	IS 2386 (Part 3): 1963 (RA 2016)	1 %to 10 %

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4.	Fine Aggregate	Sieve Analysis	IS 2386 (Part 1): 1963 RA 2016	(0.1% to 100%) 75 micron to 10mm
		Specific Gravity	IS 2386 (Part 3): 1963 (RA 2016)	2.5 to 3.5
		Water Absorption	IS 2386 (Part 3): 1963 (RA 2016)	1 % to 10 %
5.	Concrete Paver Block	Compressive Strength	IS 15658: 2006 (RA 2011)	5 N/mm ² to 60 N/mm ²
		Water Absorption	IS 15658: 2006 (RA 2011)	0.5 % to 20 %
II.	MECHANICAL PROPERTIES OF METALS			
1.	High Strength Deformed Steel Bars for Concrete Reinforcement	Mass per meter	IS 1786: 2008 (RA 2013)	0.1 kg/m to 9.5 kg/m
		Tensile Strength	IS 1608: 2005 (RA 2013)	100 N/mm ² to 800 N/mm ²
		Yield Stress	IS 1608: 2005 (RA 2013)	100 N/mm ² to 800 N/mm ²
		Elongation	IS 1608 2005 (RA 2013)	10 % to 40 %