

Laboratory Falcon Industrial Testing Laboratory Pvt. Ltd., 181, Estate 2nd Main Road, Burma Colony, OMR, Perungudi, Chennai, Tamil Nadu

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6832 (in lieu of T-3672)

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Validity 09.11.2017 to 08.11.2019

Last Amended on 30.01.2018

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.	Aggregate (Coarse)	Sieve Analysis	IS 2386 (Part 1): 1963 (RA 2016)	75 microns to 4.75mm
		Bulk Density (Loose/Rodded)	IS 2386 (Part 3): 1963 (RA 2016)	1.2 to 2.5Kg/Lit
		Specific Gravity	IS 2386 (Part 3): 1963 (RA 2016)	2 to 4
		Flakiness Index	IS 2386 (Part 1): 1963 (RA 2016)	5 % to 60 %
		Elongation Index	IS 2386 (Part 1): 1963 (RA 2016)	5 % to 60 %
		Aggregate impact value	IS 2386 (Part 4): 1963 (RA 2016)	1 % to 50 %
		Aggregate Crushing Value	IS 2386 (Part 4): 1963 (RA 2016)	1 % to 50 %
2.	Aggregate (Fine)	Sieve Analysis	IS 2386 (Part 1): 1963 (RA 2016)	4.75mm to 80mm
		Bulk Density (Loose/Rodded)	IS 2386 (Part 3): 1963 (RA 2016)	1.2 to 2.5Kg/Lit
		Specific Gravity	IS 2386 (Part 3): 1963 (RA 2016)	2 to 4
3.	Concrete	Cube Compression	IS 516 1959 Ra 2013	1 N/mm ² to 60 N/mm ²
4.	Bricks	Water Absorption	IS 3495 (Part 2): 1992 (RA 2011)	1 % to 20 %
		Compressive Strength	IS 3495 (Part 1): 1992 (RA 2011)	1 N/mm ² to 20 N/mm ²
5.	Concrete Blocks (Hollow & Solid)	Water Absorption	IS 2185 (Part 1): 2005 (RA 2014)	1 % to 10 %
		Compressive Strength	IS 2185 (Part 1): 2005 (RA 2014)	1 N/mm ² to 20 N/mm ²

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		Block Density	IS 2185 (Part 1): 2005 (RA 2014)	1000 kg/m ³ to 2200 kg/m ³
6.	Cement	Normal Consistency	IS 4031 (Part 5) 1988 (RA 2016)	20 % to 50 %
		Initial Setting Time	IS 4031 (Part 5): 1988 (RA 2016)	30 min to 300 min
		Final Setting Time	IS 4031 (Part 5): 1988 (RA 2016)	100 min to 800 min
		Compressive Strength	IS 4031 (Part 6): 1988 (RA 2016)	10 N/mm ² to 65 N/mm ²
		Fineness By Dry Sieving	IS 4031 (Part 1): 1996 (RA 2016)	0.1 % to 100 %
II.	SOIL AND ROCK			
1.	Soil	Specific Gravity	IS 2720 (Part 3): 1985 (RA 2015)	2 to 3
		Grain Size Analysis	IS 2720 (Part 4): 1985 (RA 2015)	75 micron to 63 mm
		Atterberg's Limit (LL, PL, PI)	IS 2720 (Part 5): 1985 (RA 2015)	LL-20 % to 100 % PL-10 % to 60%
		Field Density by Core cutter method	IS 2720 (Part 29): 1975 (RA 2015)	1.3 g/cc to 2.4 g/cc
		Field Density by sand replacement method	IS 2720 (Part 28): 1975 (RA 2015)	1.3 g/cc to 2.5 g/cc
		Standard Proctor Compaction test	IS 2720 (Part 7): 1980 (RA 2015)	OMC: 6 % to 40 % MDD: 1.2 g/cc to 2.3 g/cc
		Modified Proctor Compaction test	IS 2720 (Part 8): 1983 (RA 2015)	OMC: 6 % to 40 % MDD: 1.2 g/cc to 2.3 g/cc
		California bearing Capacity test	IS 2720 (Part 16): 1979 (RA 2015)	1 % to 50 %

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III.	MECHANICAL PROPERTIES OF METALS			
1.	Reinforcement Steel	Ultimate 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 750 N/mm ²
		% of Elongation	IS 1608:2005 (RA 2013)	12 % to 30 %
		Mass Per meter	IS 1786:2008 (RA 2013)	0.01 kg/mt to 10 kg/mt

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NON – DESTRUCTIVE TESTING

I.	BUILDING MATERIAL- REINFORCED CONCRETE STRUCTURES			
1.	Hardened Concrete	Rebound Hammer	IS 13311 (Part 2): 1992 (RA 2013)	10 N/mm ² to 40 N/mm ²
		Ultrasonic Pulse Velocity Test	IS 13311 (Part 1): 1992 (RA 2013)	Upto 5.0 km/s

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