

Laboratory Institute for Construction Materials and Technologies Private Limited, No. 237, Burma Colony, 3rd Main Road, Perungudi, Chennai, Tamil Nadu

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-5774

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Validity 25.07.2018 to 24.07.2020

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.	<b>BUILDING MATERIALS</b>			
1.	<b>Coarse Aggregate for Concrete</b>	Sieve Analysis	IS 2386 (Part 1)	2.36 mm to 40 mm (0.01 % to 100 %)
		Specific Gravity	IS 2386 (Part 3)	2.0 to 3.5
		Water Absorption	IS 2386 (Part 3)	0.1% to 5 %
		Bulk Density	IS 2386 (Part 3)	1300 kg/lit to 2000 kg/lit
		Impact Value	IS 2386 (Part 4)	5% to 35 %
		Crushing Value	IS 2386 (Part 4)	5% to 35 %
		Flakiness Index	IS 2386 (Part 1)	1% to 50%
		Elongation Index	IS 2386 (Part 1)	1% to 50%
		Los Angeles Abrasion Value	IS 2386 (Part 4)	5% to 60 %
2.	<b>Fine Aggregate for Concrete</b>	Sieve Analysis	IS 2386 (Part 1)	150 Micron to 4.75 mm (0.01 % to 100 %)
		Specific Gravity	IS 2386 (Part 3)	2.0 to 3.0
		Water Absorption	IS 2386 (Part 3)	0.1% to 5 %
		Bulk Density	IS 2386 (Part 3)	1300 kg/lit to 2000 kg/lit
		Material Finer than 75 microns	IS 2386 (Part 1)	1% to 20 %
3.	<b>Cement (OPC, PPC &amp; PSC)</b>	Density of Cement	IS 4031 (Part 11)	3.00 g/cc to 3.25 g/cc
		Consistency	IS 4031 (Part 4)	25% to 35%
		Initial Setting Time	IS 4031 (Part 5)	5 Minutes to 300 Minutes
		Final Setting Time	IS 4031 (Part 5)	30 Minutes to 700 Minutes
		Compressive Strength	IS 4031 (Part 6)	10 N/mm <sup>2</sup> to 80 N/mm <sup>2</sup>
		Fineness (By Blaines Air Permeability Method)	IS 4031 (Part 2)	200 m <sup>2</sup> /kg to 400 m <sup>2</sup> /kg

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		Soundness by Le-Chatelier's Apparatus	IS 4031 (Part 3)	0.1 mm to 10 mm
4.	Fly Ash	Fineness (By Blaines Air Permeability Method)	IS 1727	320 m <sup>2</sup> /kg to 420 m <sup>2</sup> /kg
		Density	IS 4031 (Part 11)	1 to 2.5
		Consistency	IS 4031 (Part 4)	25% to 35 %
		Initial Setting Time	IS 4031 (Part 5)	5 Minutes to 600 Minutes
		Final Setting Time	IS 4031 (Part 5)	5 Minutes to 600 Minutes
		Particles retained on 45 micron sieve(Wet Sieving)	IS 1727	1 % to 50 %
		Soundness by Le-Chatelier's Apparatus	IS 4031 (Part 3)	0.5 mm to 4 mm
5.	Ground Granulated Blast Furnace Slag/Silica Fume	Compressive Strength	IS 4031 (Part 6)	1 N/mm <sup>2</sup> to 100 N/mm <sup>2</sup>
		Fineness (By Blaines Air Permeability Method)	IS 4031 (Part 2)	275 m <sup>2</sup> /kg to 375 m <sup>2</sup> /kg
		Consistency	IS 4031 (Part 4)	25% to 35 %
		Initial Setting Time	IS 4031 (Part 5)	5 Minutes to 600 Minutes
		Final Setting Time	IS 4031 (Part 5)	5 Minutes to 600 Minutes
		Particles Retained on 45 Micron Sieve Wet Sieving	IS 1727	1 % to 100 %
		Soundness by Le-Chatelier's Apparatus	IS 4031 (Part 3)	0.5 mm to 4 mm
		Compressive Strength	IS 1727	1 N/mm <sup>2</sup> to 100 N/mm <sup>2</sup>
6.	Concrete Cube	Compression Test	IS 516	10 N/mm <sup>2</sup> to 80 N/mm <sup>2</sup>
7.	Concrete Beam	Flexural Strength	IS 516	1 N/mm <sup>2</sup> to 50 N/mm <sup>2</sup>
8.	Concrete Cylinder	Split Tensile Strength	IS 5816	1 N/mm <sup>2</sup> to 50 N/mm <sup>2</sup>
9.	Concrete Cube	Compressive Strength by Accelerated curing (Boiling Water Method)	IS 9013	1 N/mm <sup>2</sup> to 100 N/mm <sup>2</sup>
		Water Permeability	DIN 1048 : (Part 5) and MORTH Specification	Up to 200 mm

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10.	Admixture	pH Value	IS 9103	1 to 14
		Dry Material Content	IS 9103	1 % to 50 %
		Relative Density	IS 9103	1.0 to 2.0
II.	<b>METALS AND ALLOYS</b>			
1.	Steel for Concrete Reinforcement	Ultimate Tensile Strength	IS 1608	250 N/mm <sup>2</sup> to 800 N/mm <sup>2</sup>
		0.2% Proof Stress	IS 1608	200 N/mm <sup>2</sup> to 700 N/mm <sup>2</sup>
		Percent Elongation	IS 1608	1 % to 50%
		Test for Mass	IS 1786	0.3 kg/m to 6.5 kg/m
		Bend Test	IS 1786	Mandrel Dia: 16, 32,45, 75,120,140
		Rebend Test	IS 1786	Mandrel Dia: 16, 32,45, 75,120,180