

Laboratory Elite Laboratory, At-Road No. 5, Indrapuri, Ratu Road, Ranchi, Jharkhand

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-6627

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Validity 06.12.2017 to 05.12.2019

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

I. BUILDING MATERIALS				
1.	Fine Aggregate	Sieve Analysis	IS 2386 (Part 1): 1963 (RA 2016)	150 µm to 4.75 mm
		Total Deleterious Material	IS 2386 (Part 2): 1963 (RA 2016)	0.2 to 8.0
		Specific Gravity	IS 2386 (Part 3): 1963 (RA 2016)	1.5 to 3.0
		Water Absorption	IS 2386 (Part 3): 1963 (RA 2016)	0.2 % to 5.0 %
		Bulk Density	IS 2386 (Part 3): 1963 (RA 2016)	1.0 kg/l to 3.0 kg/l
		Soundness MgSO ₄ & Na ₂ SO ₄	IS 2386 (Part 5): 1963 (RA 2016)	0.05 % to 20 %
2.	Coarse Aggregate	Sieve Analysis	IS 2386 (Part 1): 1963 (RA 2016)	4.75 mm to 80 mm
		Total Deleterious Material	IS 2386 (Part 1 & Part 2): 1963 (RA 2016)	0.2 % to 8.0 %
		Specific Gravity	IS 2386 (Part 3): 1963 (RA 2016)	1.5 to 3.0
		Water Absorption	IS 2386 (Part 3): 1963 (RA 2016)	0.2 % to 5.0 %
		Bulk Density	IS 2386 (Part 3): 1963 (RA 2016)	1.0 kg/l to 2.0 kg/l
		Elongation Index	IS 2386 (Part 1): 1963 (RA 2016)	7 % to 50 %
		Flakiness Index	IS 2386 (Part 1): 1963 (RA 2016)	7 % to 50 %
		Crushing value	IS 2386 (Part 4): 1963 (RA 2016)	5 % to 50 %

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		Impact value	IS 2386 (Part 4): 1963 (RA 2016)	7 % to 50 %
		Soundness MgSO ₄ & Na ₂ SO ₄	IS 2386 (Part 5): 1963 (RA 2016)	0.05 % to 20 %
		10 % Fine Value	IS 2386 (Part 4): 1963 (RA 2016)	10 tons 40 tons
3.	Burnt Clay Brick	Dimension (Length) (Width) (Height)	IS 1077:1992 (RA 2011)	4000 mm to 5000 mm 2100 mm to 2400 mm 1300 mm to 1600 mm
		Water Absorption	IS 3495 (Part 2): 1992 (RA 2011)	5 % to 30 %
		Compressive Strength	IS 3495 (Part 1): 1992 (RA 2011)	1 to 20 N/mm ²
		Efflorescence	IS 3495 (Part 3): 1992 (RA 2011)	Qualitative (Visual)
4.	Precast Concrete Block for Paving	Compressive Strength	IS 15658:2006 (RA 2016)	10 N/mm ² to 70 N/mm ²
		Water Absorption	IS 15658:2006 (RA 2016)	2 % to 10 %
		Thickness of wearing layer	IS 15658:2006 (RA 2016)	2 mm to 15 mm
		Length	IS 15658:2006 (RA 2016)	100 mm to 400 mm
		Width	IS 15658:2006 (RA 2016)	100 mm to 400 mm
		Thickness	IS 15658:2006 (RA 2016)	20 mm to 100 mm
5.	Hardened Concrete	Compressive Strength	IS 516:1959 (RA 2013)	10 MPa to 70 MPa
II.	SOIL & ROCK			
1.	Stone Granite/ Marble	Specific Gravity	IS 1124:1974 (RA 2013)	2.50 to 3.00
		Water Absorption	IS 1124:1974 (RA 2013)	0.05 % to 6.0 %
		Hardness (Mohs)	IS 13630 (Part 13): 2006 (RA 2016)	1 to 8

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		Dimension (Length) (Width) (Height)	IS 1130:1969 (RA 2008)	25 mm to 500 mm 25 mm to 500 mm 10 mm to 75 mm
		Compressive Strength Kg/cm ²	IS 1121 (Part 1): 2013	10 MPa to 150 MPa
		Durability	IS 1126:2013	0.01 % to 1.0 %
2.	Soil	Sieve Analysis	IS 2720 (Part 4): 1985 (RA 2015)	5 % to 100 %
		Proctor Compaction MDD OMC	IS 2720 (Part 8): 1983 (RA 2015)	1 gm/cc to 3 gm/cc 1 % to 20 %
		Liquid Limit	IS 2720 (Part 5): 1985 (RA 2015)	1 % to 30 %
		Plastic Limit	IS 2720 (Part 5): 1985 (RA 2015)	0 to 30 %
		California Bearing Ratio (CBR)	IS 2720 (Part 16): 1987 (RA 2011)	1 % to 90 %
		Specific Gravity	IS 2720 (Part 3 & Sec. I & II): 1980 (RA 2011)	2.0 to 2.90
3.	Bentonite	Sand Content	IS 6186:1986 (RA 2010)	0.2 % to 5 %
		Liquid Limit	IS 2720 (Part 5): 1985 (RA 2015)	200 % to 600 %
		Swelling Index	IS 2720 (Part 40): 1977 (RA 2011)	100 % to 600 %
		Fineness by Dry Sieve	IS 6186:1986 (RA 2010)	0.1 % to 100 %
		Fineness by Wet Sieve	IS 6186:1986 (RA 2010)	0.1 % to 100 %