

Laboratory Telford Test House, Km 20 of NH 25, Skindarpur, Banthra, Lucknow, Uttar Pradesh

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-5033

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Validity 27.02.2017 to 26.02.2019

Last Amended on 25.07.2018

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.	SOIL & ROCK			
1.	Clays, Soil	Moisture Content	IS 2720 (Part 2): 1993 (RA 2010)	1 % to 25 %
		Grain Size Analysis	IS 2720 (Part 4): 1985 (RA 2010)	75 μ to 63 mm
		Atterberg Limits-LL,PL	IS 2720 (Part 5): 1985 (RA 2010)	10 % to 40 %
		Shrinkage Limit	IS 2720 (Part 6): 1972 (RA 2011)	1.0 % to 50 %
		Water Content-Dry Density (Light Compaction)	IS 2720 (Part 7): 1980 (RA 2011)	1.0 gm/cm ³ to 3.0 gm/cm ³
		Water Content-Dry Density (Heavy Compaction)	IS 2720 (Part 8): 1983 (RA 2010)	1.0 gm/cm ³ to 3.0 gm/cm ³
		Shear Strength	IS 2720 (Part 11): 1993 (RA 2011) (Part12),1981& (Part13),1986	Ø ⁰ to 40 ⁰
		California Bearing Ratio	IS 2720 (Part 16): 1987 (RA 2011)	1 % to 100 %
		Free Swell Index	IS 2720 (Part 40): 1977 (RA 2011)	5 % to 70 %
II.	BUILDING MATERIALS			
1.	Coarse Aggregate	Flakiness Index	IS 2386 (Part 1): 1963 (RA 2011)	4 % to 40 %
		Elongation Index	IS 2386 (Part 1): 1963 (RA 2011)	4.75 mm to 63 mm

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		Sieve Analysis	IS 2386 (Part 1): 1963 (RA 2011)	4 % to 40 %
		Specific Gravity,	IS 2386 (Part 3): 1963 (RA 2011)	2.15 to 3.15
		Bulk density	IS 2386 (Part 3): 1963 (RA 2011)	0.5 gm/cm ³ to 5.0 gm/cm ³
		Water Absorption	IS 2386 (Part 3): 1963 (RA 2011)	0.05 % to 100 %
		Aggregate Impact value	IS 2386 (Part 4): 1963 (RA 2011)	5 % to 50 %
		10% fine value	IS 2386 (Part 4): 1963 (RA 2011)	5 KN to 50 KN
		Soundness	IS 2386 (Part 5): 1963 (RA 2011)	0.5 % to 100 %
		Alkali Aggregate Reactivity	IS 2386 (Part 7): 1963 (RA 2011)	Qualitative
2.	Fine Aggregate	Estimation of Deleterious Material	IS 2386 (Part 2): 1963 (RA 2016)	0.05 % to 50 %
		Material finer than 75 micron	IS 2386 (Part 1): 1963 (RA 2016)	1 % to 20 %
		Water Absorption	IS 2386 (Part 3): 1963 (RA 2016)	0.1 % to 30 %
		Specific Gravity	IS 2386 (Part 3): 1963 (RA 2016)	2.0 to 3.15
3.	Cement	Consistency	IS 4031 (Part 4): 1988 (RA 2009)	25 % to 45 %
		Specific Gravity	IS 4031 (Part 2): 1988 (RA 2014)	0.5 to 5.0
		Initial Setting Time	IS 4031 (Part 5): 1988 (RA 2009)	20 min to 350 min
		Final Setting Time	IS 4031 (Part 5): 1988 (RA 2009)	120 to 600 min
		Compressive Strength	IS 4031 (Part 6): 1988 (RA 2009)	2 MPa to 60 MPa

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4.	Concrete Cubes	Compressive Strength	IS 516:1959 (RA 2013)	10 MPa to 60 MPa
5a.	Bricks	Compressive strength	IS 3495:1992 (RA 2011)	2MPa to 35 Mpa
b.	Paver block	Compressive Strength	IS 15658:2006 (RA 2011)	2 MPa to 35 MPa
6.	Bitumen	Specific Gravity	IS 1202:1978 (RA 2009)	1.4 % @ 1.02 %
		Softening Point	IS 1205:1978 (RA 2009)	0.9 % @ 54.32 °C
		Ductility	IS 1208:1978 (RA 2009)	1.9 % @ 93.33 cm
		Loss on Heating	IS 1212:1978 (RA 2004)	0,1 % to 10 %
		Binder Content	IRC SP11-1988 (Appendix-5C)	0.5 % to 10 %
		Flash Point	IS1448 (Part 69): 2013	100 °C to 350 °C
		Fire point	IS1448 (Part 69): 2013	100 °C to 350 °C
		Residue by Evaporation	IS8887:2004 (RA 2009) AnnexJ	1 % to 90 %
		Residue on 600 micron	IS8887:2004 (RA 2009) AnnexB	1 % to 10 %
III.	MECHANICAL PROPERTIES OF METALS			
1.	Ferrous Materials, Alloys & Products (Reinforcement Bars, Prestressing Strands, Structural Steel)	Tensile Strength	IS 1608:2005 (RA 2011)	
		A-Yield Stress		
		B-Ultimate Stress		
		Elongation	IS 1608:2005 (RA 2011)	10 % to 28 % (1.0 mm to 300 mm/ 0.01 mm)
		Percentage Reduction of Area	IS 1608:2005 (RA 2011)	10 % to 65 % (1.0 mm to 300 mm/ 0.01 mm)
		Dimension and mass/m	IS 1786:2008 (RA 2013)	4 mm to 40 mm dia and 0.1 kg/m to 9.86 kg/m
		Bend Test/Re-Bend Test	IS 1599:2012	MD=24, 36, 48 mm
	Re-bend Test	IS 1786:2008 (RA 2013)	MD=24, 40, 84, 112 mm	