

Laboratory	Stellar Test House, G-68, Sector 63, Noida, Uttar Pradesh		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	31.03.2015
Certificate Number	T-3343	Valid Until	30.03.2017
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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I. BUILDING MATERIALS				
1.	Cement (OPC/PPC/PSC)	Consistency	IS 4031 (Part 4): 1988 (RA 2005)	10 % to 50 %
		Initial setting time	IS 4031 (Part 5): 1996 (RA 2005)	10 min. to 300 min.
		Final setting time	IS 4031 (Part 5): 1996 (RA 2005)	100 min. to 700 min.
		Soundness (Le-Chatlier)	IS 4031 (Part 3): 1990 (RA 2004)	0.2 mm to 10 mm
		Soundness (Autoclave)	IS 4031 (Part 3): 1990 (RA 2004)	0.01 % to 5 %
		Fineness (Blains)	IS 4031 (Part 2): 1990 (RA 2004)	100 m ² /kg to 700 m ² /kg
		Density	IS 4031 (Part 11): 1988 (RA 2005)	2 g/cm ³ to 3.5 g/cm ³
		Compressive Strength	IS 4031 (Part 6): 1988 (RA 2005)	10 N/mm ² to 70 N/mm ²
2.	Bricks (Burnt Clay/ Fly Ash Brick)	Dimensions	IS 1077: 1992 (RA 2007)	
		Length		150 mm to 300 mm
		Width		50 mm to 150 mm
		Thickness		30 mm to 100 mm
		Compressive Strength	IS 3495 (Part1): 1992 (RA 2007)	1 N/mm ² to 25 N/mm ²
		Efflorescence	IS 3495 (Part3): 1992 (RA 2007)	Qualitative
3.	Aggregates (Coarse/Fine)	Water Absorption	IS 3495 (Part2): 1992 (RA 2007)	0.1 % to 30 %
		Sieve Analysis For Coarse	IS 2386 (Part 1): 1963 (RA 2007)	4.75 mm to 80 mm
		Sieve Analysis For Fine	IS 2386 (Part 1): 1963 (RA 2007)	4.75 micron to 75 micron
		Water Absorption	IS 2386 (Part 3): 1963 (RA 2007)	0.1 % to 5 %

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	Aggregates (Coarse/Fine)	Impact Value	IS 2386 (Part 4): 1963 (RA 2007)	10 % to 50 %
		Abrasion Value	IS 2386 (Part 4): 1963 (RA 2007)	10 % to 50 %
		Crushing Value	IS 2386 (Part 4): 1963 (RA 2007)	10 % to 50 %
		Bulk Density/ Density	IS 2386 (Part 3): 1963 (RA 2007)	1 kg/l to 3 kg/l
		Specific Gravity	IS 2386 (Part 3): 1963 (RA 2007)	1.0 to 3.5
		Flakiness Index	IS 2386 (Part 1): 1963 (RA 2007)	5 % to 60 %
		Elongation Index	IS 2386 (Part 1): 1963 (RA 2007)	5 % to 60 %
		10% Fines Value	IS 2386 (Part 4): 1963 (RA 2007)	5 ton to 50 ton
4.	Stones (Marble)	Moh's Hardness (Scratch Hardness)	IS 1130: 1969 (RA 2008)	1 to 9
		Water Absorption	IS 1130: 1969 (RA 2008)	0.01 % to 2.5 %
		Specific Gravity	IS 1130: 1969 (RA 2008)	2 to 3.5
5.	Concrete	Compressive Strength	IS 516: 1959 (RA 2008)	5 N/mm ² to 40 N/mm ²
6.	Tiles (Vitrified/ Terrazzo/ Cement Concrete Tile / Chequered Tile)	Dimensions	IS 13630 (Part 1): 2006	
		Length		200 mm to 1000 mm
		Width		100 mm to 700 mm
		Thickness		5 mm to 50 mm
		Water Absorption	IS 13630 (Part 2): 2006	Upto 25%

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7.	Tiles (Ceramic/ Glazed)	Dimensions	IS 13630 (Part 1): 2006	
		Length		20 mm to 1000 mm
		Width		100 mm to 700 mm
		Thickness		1 mm to 50 mm
		Water Absorption	IS 13630 (Part 2): 2006	0 % to 25 %
		Scratch Hardness (Moh,s Hardness)	IS 13630 (Part 13): 2006	1 to 9
		Crazing Resistance	IS 13630 (Part 9): 2006	Qualitative
8.	Timber/ Wood	Moisture Content	IS 1708 (Part 1): 1986 (RA 2008)	0.5 % to 20 %
		Density	IS 1708 (Part 2): 1986 (RA 2008)	600 kg/m ³ to 1000 kg/m ³
9.	Bituminous Materials	Binder Content	ASTM D2172	0 % to 30 %
		Density	ASTM D2726-11	1 g/cc to 5 g/cc
II. MECHANICAL PROPERTIES OF MATERIALS				
1.	Steel (Steel Reinforcement & Structural Steel M.S. / G. I.)	Ultimate Tensile Strength	IS 1608: 2010	100 N/mm ² to 800 N/mm ²
		Yield Strength	IS 1608: 2010	100 N/mm ² to 700 N/mm ²
		Elongation %	IS 1608: 2010	1 % to 40 %
		Mass/Meter	IS 1599: 2012	1 kg to 30.0 kg
		Bend	IS 1599: 1985 (RA 2012)	Qualitative (Mandrel Size: 12 mm, 16 mm, 20 mm, 22 mm, 25 mm, 50 mm, 100 mm, 110 mm, 256 mm, 280 mm)

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	Steel (Steel Reinforcement & Structural Steel M.S. / G. I.)	Rebend	IS 1786: 2003	Qualitative (Mandrel Size: 12 mm, 16 mm, 20 mm, 22 mm, 25 mm, 50 mm, 100 mm, 110 mm, 256 mm, 280 mm)

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