

Laboratory **Guru Kripa Test House, AMC 110/10, Civil Lines, Ajmer, Rajasthan**
Accreditation Standard **ISO/IEC 17025: 2005**
Certificate Number **TC-7473** (in lieu of T-3972 & T-3973) **Page 1 of 6**
Validity **30.05.2018 to 29.05.2020** **Last Amended on 22.06.2018**

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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CHEMICAL TESTING

I.	WATER			
1.	Construction Water	Volume of 0.02 N NaOH required to neutralized 100 ml sample of Water	IS 3025 (Part 22): 1986, (RA 2014)	0.1 ml to 100 ml
		Volume of 0.02N H ₂ SO ₄ required to neutralize 100ml of water sample using mixed indicator	IS 3025 (Part 23): 1986, (RA 2014)	0.1 ml to 100 ml
		Volatile (Organic) Residue	IS 3025 (Part 18): 1984, (RA 2017)	10 mg/l to 2000 mg/l
		Fixed (Inorganic) Residue	IS 3025 (Part 18): 1984, (RA 2017)	10 mg/l to 5000 mg/l
		Sulphate (as SO ₃)	IS 3025 (Part 24):1986, (RA 2014)	5 mg/l to 2000 mg/l
		Chloride (as Cl)	IS 3025 (Part 32):1988, (RA 2014)	5 mg/l to 2000 mg/l
		Total Suspended Matter	IS 3025 (Part 17): 1984, (RA 2017)	1 mg/l to 3000 mg/l
		pH	IS 3025 (Part 11):1983, (RA 2017)	2 to 12
2.	Potable Water/ Surface Water	pH	IS 3025 (Part 11): 1983, (RA 2017)	2 to 12
		Total Dissolved Solids	IS 3025 (Part 16): 1984, (RA 2017)	10 mg/l to 2000 mg/l
		Total Suspended Solids	IS 3025 (Part 17): 1984, (RA 2017)	1 mg/l to 500 mg/l
		Alkalinity	IS 3025 (Part 23): 1986, (RA 2014)	10 mg/l to 1000 mg/l
		Total Hardness	IS 3025 (Part 21): 1983, (RA 2014)	5 mg/l to 2000 mg/l

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		Sulphate	IS 3025 (Part 24): 1986, (RA 2014)	5 mg/l to 2000 mg/l
		Chloride	IS 3025 (Part 32): 1988, (RA 2014)	5 mg/l to 2000 mg/l

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MECHANICAL TESTING

I.	BUILDINGS MATERIALS			
1.	Coarse Aggregate	Sieve Analysis	IS 2386 (Part 1) 1963 (RA 2016)	4.75 mm to 40 mm
		Impact Value	IS 2386 (Part IV) 1963 (RA 2016)	5 % to 70 %
		Los Angeles Abrasion Value	IS 2386 (Part IV) 1963 (RA 2016)	5 % to 70 %
		Water Absorption	IS 2386 (Part III) 1963 (RA 2016)	0.1 % to 10 %
		Crushing Value	IS 2386 (Part IV) 1963 (RA 2016)	5 % to 60 %
		10% Fines Value	IS 2386 (Part IV) 1963 (RA 2016)	50 KN to 600 KN
		Elongation Index	IS 2386 (Part I) 1963 (RA 2016)	5 % to 70 %
		Flakiness Index	IS 2386 (Part I) 1963 (RA 2016)	5 % to 70 %
		Bulk Density	IS 2386 (Part III) 1963 (RA 2016)	1 kg/L to 4 kg/L
		Specific gravity	IS 2386 (Part III) 1963 (RA 2016)	2 to 4
		Stripping Value	IS 6241-1971 (RA 2013)	1 % to 100 %
2.	Fine Aggregate	Sieve Analysis	IS 2386 (Part 1) 1963 (RA 2016)	150 microns to 10 mm
		Water Absorption	IS 2386 (Part III) 1963 (RA 2016)	0.2 % to 10 %
		Bulk Density	IS 2386 (Part III) 1963 (RA 2016)	1 kg/L to 4 kg/L
		Specific gravity	IS 2386 (Part III) 1963 (RA 2016)	2 to 4
		Materials finer than 75 μ	IS 2386 (Part I) 1963 (RA 2016)	0.1 % to 15 %

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3.	Bricks& Pre-Casted blocks (Burnt Clay Building Bricks/ Pulverized Fuel Ash-Lime Bricks)	Compressive Strength	IS 3495 (Part I) 1992 (RA 2011)	2 N/mm ² to 30 N/mm ²
		Efflorescence	IS 3495 (Part III) 1992 (RA 2011)	Qualitative
		Water Absorption	IS 3495 (Part II) 1992 (RA 20011)	0.1 % to 30 %
		Dimensions Length Width Height	IS 1077-1992 (RA 2011) IS 12894-2002 (RA 2011)	1320 mm to 4680 mm 1760 mm to 2250 mm 540 mm to 1840 mm
4.	Bricks (Heavy Duty Bricks)	Dimensions (Heavy Duty) Length Width Height	IS 2180-1988 (RA 2011)	226 mm to 234 mm 108 mm to 112 mm 38 mm to 92 mm
5.	Concrete	Compressive Strength of Cubes	IS 516-1959 (RA 2013)	5 N/mm ² to 60 N/mm ²
		Compressive Strength of CC Core		5 N/mm ² to 70 N/mm ²
6.	Paver Block	Compressive Strength	IS 15658 - 2006 (RA 2016) Annex-D	5 N/mm ² to 60 N/mm ²
		Water Absorption	IS 15658 - 2006 Annex-C	1 % to 15 %
7.	Tiles (Floor Tiles/ Chequered Cement Concrete Tiles)	Straightness	IS 1237-2012 (RA 2016)	0.01 % to 4 %
		Flatness	IS 1237-2012 (RA 2016)	0.01 mm to 10 mm
		Water Absorption	IS 1237-2012 (RA 2016)	0.1 % to 20 %
		Perpendicularity	IS 1237-2012 (RA 2016)	0.01 % to 5 %
8.	Hollow & Solid Concrete Block	Block Density	IS 2185 (Part I) - 2005 (RA 2010)	500 kg/m ³ to 3000 kg/m ³
		Compressive Strength	IS 2185 (Part I) - 2005 (RA 2010)	2 N/mm ² to 40 N/mm ²
		Water Absorption	IS 2185 (Part I) - 2005 (RA 2010)	0.1 % to 20 %
		Dimension Length width Height	IS 2185 (Part I) - 2005 (RA 2010)	200 mm to 600 mm 50 mm to 300 mm 100 mm to 200 mm

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9.	Wood and Wood Products (Wood/Timber)	Moisture Content	IS 1708 (Part I)- 1986 (RA 2010)	1 % to 30 %
		Specific Gravity	IS 1708 (Part II)-1986 (RA 2010)	0.4 to 1.2
10.	Wood and Wood Products (Plywood)	Density	IS 303-1989 (RA 2013) IS 1734 (Part I)-1983 (RA 2013)	0.1 g/cc to 2.0 g/cc
		Moisture Content	IS 303-1989 (RA 2013) IS 1734 (Part I)-1983 (RA 2013)	0.1 % to 30 %
11.	AAC Block	Block Density	IS: 6441(Part-1)-1972 Reaff-2012	400 kg/m ³ to 1500 kg/m ³
		Compressive Strength	IS 6441(Part 5)-1972 (RA 2012)	2N/mm ² to 15 N/mm ²
		Dimension Length width Height	IS 2185 (Part 3)-1984 (RA 2010)	350 mm to 700 mm 50 mm to 500 mm 50 mm to 400 mm
II.	SOIL & ROCK			
1.	Soil	Grain Size Analysis		
		Dry Sieve Analysis	IS 2720 (Part 4)-1985, (RA 2015)	0.075 mm to 4.75 mm
		Wet Sieve Analysis	IS 2720 (Part 4)-1985, (RA 2015)	0.075 mm to 4.75 mm
		Atterberg's Limit Liquid Limit	IS 2720 (Part 5)-1985 (RA 2015)	15 % to 85 %
		Plastic Limit	IS 2720 (Part 5)-1985 (RA 2015)	5 % to 45 %
		Water Content	IS 2720 (Part II) 1973 (RA 2015)	0.5 % to 30 %

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		Specific Gravity	IS 2720 (Part III) Sec. 1 - 1980, (RA 2011)	1 to 3
		Free Swell Index	IS 2720 (Part XL)-1977 (RA 2011)	Upto 70 %
		Compaction Test For Light compaction OMC MDD For Heavy Compaction OMC MDD	IS 27200 (Part VII)-1980 (RA 2011) IS 2720 (Part 8)-1983 (RA 2015)	5 % to 30% 1 gm/cc to 3 gm/cc 5 % to 30% 1 gm/cc to 3 gm/cc
2.	Reinforcement Steel	Weight per meter	IS 1786-2008	0.1 kg/m to 10 kg/m