

Laboratory	NSIC Technical Services Centre, Okhla Industrial Estate, Phase-III, New Delhi		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	05.06.2014
Certificate Number	T-2991	Valid Until	04.06.2016
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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
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I. MECHANICAL PROPERTIES OF MATERIALS

1. Ferrous & Non Ferrous Metal & Alloys	Mass per meter Tensile test Elongation % Yield Stress Bend Test Hardness Test - Rockwell	IS:1786- 2008 Amend No. 1/2012 IS:1608- 2005 RA 2010 IS:1608- 2005 RA 2010 IS:1608- 2005 RA 2010 IS:1599-1985 RA 2010 IS:3260-1965 IS:1692-1974 IS: 1586- 2000 RA 2006	0.1 kg/m to 20 kg/m Upto 650 N/mm ² 4% to 60% Upto 650 N/mm ² 400 kN Upto 175 mm mandral dia 30 HRC to 65 HRC 50 HRB to 100 HRB
2. Steel Pipes & Tubes	Flattening Test	IS: 2328-2005	Ø50 mm to 200 mm

II. BUILDING MATERIALS

1. Timber	Moisture content Density	IS:287-1993 RA-2008, IS:1708 (Pt-1)-1986 RA-2008 IS: 399-1963	0.5% to 60% 100 kg/m ³ to 1200 kg/m ³
2. Flush Door Shutter	Dimension & Squareness Screw withdrawal strength Knife test Glue adhesion test End immersion test	IS:2202 (Pt-1) - 1999 RA 2004 IS:2202 (Pt-1) - 1999 RA 2004 IS:2202 (Pt-1) - 1999 RA 2004 IS:2202 (Pt-1) - 1999 RA 2004 IS:2202 (Pt-1) - 1999 RA 2004 & IS:4020	0 to 3000 mm 10 kg to 1000 kg Qualitative Qualitative Qualitative
3. Block Board	Resistance to Water Modulus of Elasticity Modulus of Rupture	IS: 1659-2004 IS: 1659-2004 IS: 1659-2004	Qualitative 500N/mm ² to 8000N/mm ² 5 N/mm ² to 100 N/mm ²

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4.	Particle Boards/ Prelaminated Particle Board		IS: 3087 – 2005, IS: 3097 – 2006 IS: 12823- 1990 RA-2005	
		Moisture content	IS: 2380 (Pt-3)-1977 RA 2003	0.5% to 30 %
		Density	IS: 2380 (Pt-3)-1977 RA 2003	200 kg/m ³ to 1000 kg/m ³
		Screw withdrawal strength	IS: 2380 (Pt-14)-1977 RA 2003	10 kg to 1000 kg
		Water Absorption	IS: 2380 (Pt-16)-1977 RA 2003	1% to 90 %
		Swelling in water	IS: 2380 (Pt-17)-1977 RA 2003	1% to 20 %
		Modulus of Elasticity	IS: 2380 (Pt-4)-1977 RA 2003	500N/mm ² to 8000 N/mm ²
		Modulus of Rupture	IS: 2380 (Pt-4)-1977 RA 2003	5 N/mm ² to 100 N/mm ²
		Resistance to Steam	IS: 12823-1990/ IS 2380-1977	Qualitative
		Tensile Strength	IS: 12823-1990/ IS 2380-(Pt-5) - 1977 RA 2003	200 N/mm ²
		Resistance to Cigarette	IS: 12823-1990/ IS 2380-1977	Qualitative
5.	Plywood			
		Moisture content	IS: 1734 (P-1)-1983 RA 2003	0.5% to 30 %
		Dimension	IS: 303-1989 RA 2003	
		(a) Length	IS: 303-1989 RA 2003	1000 mm to 3000 mm
		(b) Width	IS: 303-1989 RA 2003	900 mm to 1500 mm
		(c) Thickness	IS: 303-1989 RA 2003	3 mm to 50 mm
		Glue adhesion test	IS: 1734 (P-5)-1983	Qualitative
		Water Resistance	IS: 1734 (P-6)-1983 RA 2003	Qualitative
6.	Cement			
		Compressive Strength 3, 7 and 28 days	IS: 4031 (Pt – 5) & 1988 RA 2000	10 N/mm ² to 70 N/mm ²
		Setting Time		
		(a) Initial Setting Time	IS: 4031 (Pt - 5) - 1988 RA 2009	10minutes to 600 minutes
		(b) Final Setting Time	IS: 4031 (Pt - 5) - 1988 RA 2009	300minutes to 600 minutes
		Consistency	IS: 4031 (Pt - 4) - 1988 RA 2009	10% to 45%
		Soundness		
		(a) Autoclave	IS: 4031 (Pt - 3) - 1988 RA 2005	0.01% to 2 %
		(b) Le-chatlier	IS: 4031 (Pt - 3) - 1988 RA 2005	0.1 mm to 10 mm

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7.	Coarse Aggregate	Sieve Analysis Flakiness Index Crushing Value Deleterious Material Bulk Density Water Absorption Specific Gravity Elongation Index 10% Fine value Soundness Impact Value	IS: 2386 (Pt-1) - 1963 RA 2007 IS: 2386 (Pt-1) - 1963 RA 2007 IS: 2386 (Pt-4) - 1963 RA 2007 IS: 2386 (Pt-2) - 1963 RA 2002 IS: 2386 (Pt-3) - 1963 RA 2002 IS: 2386 (Pt-3) - 1963 RA 2002 IS: 2386 (Pt-3) - 1963 RA 2002 IS: 2386 (Pt-1) - 1963 RA 2007 IS: 2386 (Pt-4) - 1963 RA 2007 IS: 2386 (Pt-5) - 1963 RA 2002 IS: 2386 (Pt-4) - 1963 RA 2007	0.05% to 100% 5% to 60% 5% to 60% 0 to 5% 1 kg/ l to 2 kg/ l 0.1% to 30% 0.5 to 5 5 %to 60% 5 ton to 50 ton 0.5% to 30% 5% to 60%
8.	Fine Aggregate	Sieve Analysis Deleterious Material Bulk Density Water Absorption Specific Gravity Soundness	IS: 2386 (Pt-1) - 1963 RA 2007 IS: 2386 (Pt-2) - 1963 RA 2002 IS: 2386 (Pt-3) - 1963 RA 2002 IS: 2386 (Pt-3) - 1963 RA 2002 IS: 2386 (Pt-3) - 1963 RA 2002 IS: 2386 (Pt-5) - 1963 RA 2002	0.05% to 100% 0 to 5% 1 kg/ l to 2 kg/ l 0.1 to 30% 0.5 to 5 0 to 30%
9.	Bricks	Dimension (a) Length (b) Width (c)Height Compressive Strength Water Absorption Efflorescence	IS:1077-1992, IS:12894-2002, IS:13757-1993 IS: 1077 - 1992 RA 2007 / IS: 12894-2002 IS: 1077 - 1992 RA 2007 IS: 1077 - 1992 RA 2007 IS: 3495 (Pt - 1) - 1992 RA 2002 IS: 3495 (Pt - 2) - 1992 RA 2002 IS: 3495 (Pt - 3) - 1992 RA 2002	4520 mm to 4680 mm 2160 mm to 2240 mm 1360 mm to 1440 mm 3.5 N/mm ² to 75 N/mm ² Upto 30% Qualitative
10.	Man-hole Covers	Compressive Load	IS: 1726-1991 IS: 5455, 4111,(Part1)-1986 IS: 12592-2002	2.5 Ton to 50 Ton

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11.	Cement Concrete Cube	Compressive Strength	IS: 516 - 1959 RA 2004	Upto 80 N/mm ²
12.	Pavers Block	Compressive Strength Water Absorption Dimension	IS:15658-2006 IS: 15658-2006 IS: 15658-2006	Upto 75 N/mm ² 1% to 20% 50 mm to 250 mm

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