

Laboratory	Indian Plywood Industries Research and Training Institute, B-65, Phase-7, Industrial Area, Mohali, Punjab		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Mechanical Testing	Issue Date	03.06.2014
Certificate Number	T-2072	Valid Until	02.06.2016
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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
I.	BUILDING MATERIALS			
1.	Plywood for General Purpose	Moisture content	IS 1734 (Part I): 1983 (RA 2008)	1 % to 35 %
		Glue Adhesion		
		Resistance to water (cyclic test)	IS 303-1989 (RA 2008)	
		Adhesion of plies	IS 1734 (Part 5) :1983 (RA 2008)	Qualitative
		Resistance to Micro-organisms, Adhesion of plies	IS 1734 (Part 7): 1983 (RA 2008)	Qualitative
		Modulus of Elasticity		
		Along the grain	IS 1734 (Part 11): 1983 (RA 2008)	(100 to12000) N/mm ²
		Across the grain	IS 1734 (Part 11):1983 (RA 2008)	(1 to 12000) N/mm ²
		Modulus of Rupture		
		Along the grain	IS 1734 (Part 11): 1983 (RA 2008)	(5 to120) N/mm ²
		Across the grain	IS 1734 (Part 11):1983 (RA 2008)	(1 to120) N/mm ²
2.	Decorative Plywood	Moisture content	IS 1734 (Part I): 1983 (RA 2008)	0.1% to 20%
		Resistance to water (cyclic test)	IS 1328: 1996 (RA 2009)	Qualitative

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3.	Shuttering Plywood	Moisture content	IS 1734 (Part I): 1983 (RA 1998)	0.1 % to 20 %
		Glue adhesion strength in dry state		
		Glue shear strength	IS 1734 (Part 4): 1983 (RA 2008)	(15 to 4000) N
		Adhesion of plies (Knife test)	IS 1734 (Part 5): 1983 (RA 2008)	Qualitative
		Resistance to water (After 72 hr. of boiling)		
		Glue shear strength	IS 1734 (Part 4 and Part 6): 1983 (RA 2008)	(10 to 4000) N
		Adhesion of plies (Knife test)	IS 1734 (Part 5 and Part 6) :1983 (RA 2008)	Qualitative
		Mycological test		
		Glue shear strength	IS 1734 (Part 4 and Part 7) :1983 (RA 2008)	(10 to 4000) N
		Adhesion of plies (Knife test)	IS 1734 (Part 5 and Part 7): 1983 (RA 2008)	Qualitative
		Tensile test		
		Along the grain	IS 1734 (Part 9): 1983 (RA 2008)	(10 to 120) N/mm ²
		Across the grain	IS 1734 (Part 9): 1983 (RA 2008)	(10 to 120) N/mm ²
		Sum of tensile strengths	IS 1734 (Part 9): 1983 (RA 2008)	(20 to 240) N/mm ²
		Modulus of Elasticity		
		Along the grain	IS 1734 (Part 11): 1983 (RA 2008)	(1 to 2000) N/mm ²
		Across the grain	IS 1734 (Part 11): 1983 (RA 2008)	(1 to 2000) N/mm ²

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		Modulus of Rupture		
		Along the grain	IS 1734 (Part 11): 1983 (RA 2008)	(1 to 120) N/mm ²
		Across the grain	IS 1734 (Part 11): 1983 (RA 2008)	(1 to 120) N/mm ²
4.	Marine Plywood	Moisture content	IS 1734 (Part I): 1983 (RA 2008)	0.1 % to 20 %
		Glue adhesion strength in dry state		
		Glue shear strength	IS 1734 (Part 4): 1983 (RA 2008)	(10 to 4000) N
		Adhesion of plies (Knife test)	IS 1734 (Part 5): 1983 (RA 2008)	Qualitative
		Resistance to water (After 72 hr. of boiling)		
		Glue shear strength	IS 1734 (Part 4 and Part 6): 1983 (RA 2008)	(10 to 4000) N
		Adhesion of plies (Knife test)	IS 1734 (Part 5 and Part 6): 1983 (RA 2008)	Qualitative
		Mycological test		
		Glue shear strength	IS 1734 (Part 4 and Part 7): 1983 (RA 2008)	(10 to 4000) N
		Adhesion of plies (Knife test)	IS 1734 (Part 5 and Part 7): 1983 (RA 2008)	Qualitative

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5.	Flush Door Shutter	Tensile test		
		Along the grain	IS 1734 (Part 9): 1983 (RA 2008)	(10 to 120) N/mm ²
		Across the grain	IS 1734 (Part 9): 1983 (RA 2008)	(10 to 120) N/mm ²
		Sum of tensile strengths	IS 1734 (Part 9): 1983 (RA 2008)	(20 to 240) N/mm ²
		Modulus of Elasticity		
		Along the grain	IS 1734 (Part 11): 1983 (RA 2008)	(1 to 12000) N/mm ²
		Across the grain	IS 1734 (Part 11): 1983 (RA 2008)	(1 to 12000) N/mm ²
		Modulus of Rupture		
		Along the grain	IS 1734 (Part 11): 1983 (RA 2008)	(1 to 120) N/mm ²
		Across the grain	IS 1734 (Part 11): 1983 (RA 2008)	(1 to 120) N/mm ²
		Measurement of Dimensions		
		Length	IS 4020 (Part 2): 1998 (RA 2008)	(700 to 2500) mm
		Width	IS 4020 (Part 2): 1998 (RA 2008)	(200 to 1500) mm
		Thickness	IS 4020 (Part 2): 1998 (RA 2008)	(25 to 50) mm
		Squareness	IS 4020 (Part 2): 1998 (RA 2008)	(0.04 to 5) mm
		General flatness	IS 4020 (Part 3): 1998 (RA 2008)	(0.04 to 10) mm
		Local planeness	IS 4020 (Part 4): 1998 (RA 2008)	(0.02 to 2) mm
		(b) Knife test	IS 4020 (Part 14): 1998 (RA 2008)	Qualitative
		(c) Slamming test	IS 4020 (Part 10): 1998 (RA 2008)	Qualitative
		(d) Flexure test	IS 4020 (Part 6): 1998 (RA 2008)	(1 to 100) mm

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		(e) Shock resistance test	IS 4020 (Part 8): 1998 (RA 2008)	Qualitative
		(f) Buckling test	IS 4020 (Part 9): 1998 (RA 2008)	(1 to 100) mm
		(g) Edge loading test	IS 4020 (Part 7): 1998 (RA 2008)	(1 to 50) mm
		(g) Screw withdrawal strength	IS 4020 (Part 16):1998 (RA 2008)	(10 to 5000) N
		(h) Varying humidity test	IS 4020 (Part 12):1998 (RA 2008)	Qualitative (0.02 to10) mm
		(i) Misuse test	IS 4020 (Part 11):1998 (RA 2008)	Qualitative
6.	Panel Door Door Shutter	Measurement of Dimensions		
		Length	IS 4020 (Part 2): 1998(RA 2008)	(700 to 2500) mm
		Width	IS 4020 (Part 2): 1998(RA 2008)	(200 to 1500) mm
		Thickness	IS 4020 (Part 2): 1998(RA 2008)	(25 to 50) mm
		Squareness	IS 4020 (Part 2): 1998(RA 2008)	(0.04 to 5) mm
		General flatness	IS 4020 (Part 3): 1998(RA 2008)	(0.04 to 10) mm
		Local planeness	IS 4020 (Part 4): 1998(RA 2008)	(0.02 to 2) mm
		Impact indentation	IS 4020 (Part 5): 1998 (RA 2008)	(0 .02 to 2) mm
		Slamming test	IS 4020 (Part 1): 1998 (RA 2008)	Qualitative
		Flexure test	IS 4020 (Part 6): 1998 (RA 2008)	(1 to 100) mm
		Shock resistance test	IS 4020 (Part 8): 1998(RA 2008)	Qualitative

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		Buckling test	IS 4020 (Part 9): 1998 (RA 2008)	(1 to 100) mm
		Edge loading test	IS 4020 (Part 7): 1998(RA 2008)	(1 to 100) mm
		Screw withdrawal strength	IS 4020 (Part 16): 1998(RA 2008)	(10 to 5000) N
		Misuse test	IS 4020 (Part 11): 1998 (RA 2008)	Qualitative
7.	Block Board	Dimensions, Dimensional changes caused by humidity	IS 1659 -2004 (RA 2009)	(0.1 to 250) mm
		Resistance to water	IS 1659 -2004 (RA 2009)	Qualitative
		Adhesion of plies	IS 1659 -2004 (RA 2009)	Qualitative
		Mycological test	IS 1659 -2004 (RA 2009)	Qualitative
		Modulus of elasticity	IS 1659 -2004 (RA 2009)	100 -12000
		Modulus of rupture	IS 1659 -2004 (RA 2009)	1 -120

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