

FACTORY IN-HOUSE TEST REPORT

MARINE PLYWOOD IS: 710-2024

Date: 10-03-2026.

Brand: HUTTON

Formaldehyde Class: E1

Size: 2440 mm X 1220 mm

Thickness: 19mm

Grade: MARINE

Type : AA

Sl. No.	TEST	PRESCRIBED VALUE	RESULTS
1	Dimension (mm) a) Length b) Width c) Thickness	Tolerance of a) + 6 mm, - 0 mm b) + 3 mm, - 0 mm c) \pm 5%	Tolerance of a) 2442mm b) 1221mm c) 18.95mm to 19.10 mm
2	Squareness, %	0.20%	0.09
3	Edge Straightness, %	0.20%	0.11
4	Workmanship and finish	As per Clause 7	Conforms
5	Moisture content, %	5 to 15	7.24%
6	I) Glue Shear Strength in dry state a) Average b) Minimum Individual ii) Adhesion of plies (knife test)	a) 1350 N b) 1100 N ii) Min. Pass Standard	a) 1587 N b) 1390N ii) Excellent
7	Resistance of water (After 72 hour boiling) i) <u>Glue Shear Strength</u> a) Average b) Minimum Individual ii) Adhesion of plies (knife test)	a) 1000 N b) 800 N ii) Min. Pass Standard	a) 1335 N b) 979 N ii) Excellent
8	Resistance of Micro-organism i) <u>Glue Shear Strength</u> a) Average b) Minimum Individual ii) Adhesion of plies (knife test)	a) 1000 N b) 800 N ii) a) No separation at edges b) Min. Pass Standard	1255 N 998 N pass standard
9	Tensile Strength i) Parallel to the face grain ii) Perpendicular to the face grain iii) Sum of the Tensile Strength	i) Min : 36 N/ mm ² ii) Min : 29 N/ mm ² iii) Min : 84.5.0 N/ mm ²	a) 46.5 N/ mm ² b) 47.5 N/ mm ² c) 94.0 N/ mm ²

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10	Modulus of Elasticity (Static Bending strength)		
	Parallel to the face grain,	Avg. 6400 N/ mm ²	Avg. 7185 N/ mm ²
		Min. 5700 N/ mm ²	Min. 6994 N/ mm ²
	Perpendicular to the face grain,	Avg. 4600 N/ mm ²	Avg. 4985 N/ mm ²
Min. 4100 N/ mm ²		Min. 4697 N/ mm ²	
11	Modulus of Rupture		
	Parallel to the face grain,	Avg. 43 N/ mm ²	Avg. 59 N/ mm ²
		Min. 38 N/ mm ²	Min. 50 N/ mm ²
	Perpendicular to the face grain,	Avg. 35 N/ mm ²	Avg. 42 N/ mm ²
Min. 31 N/ mm ²		Min. 38 N/ mm ²	
12	Modulus of Elasticity (Wet Bending Strength)		
	Parallel to the face grain,	Avg. 3200 N/ mm ²	Avg. 4305 N/ mm ²
		Min. 2900 N/ mm ²	Min. 4195 N/ mm ²
	Perpendicular to the face grain,	Avg. 2300 N/ mm ²	Avg. 2632 N/ mm ²
Min. 2100 N/ mm ²		Min. 2495 N/ mm ²	
13	Modulus of Rupture		
	Parallel to the face grain,	Avg. 21 N/ mm ²	Avg. 37 N/ mm ²
		Min. 19 N/ mm ²	Min. 35 N/ mm ²
	Perpendicular to the face grain,	Avg. 17 N/ mm ²	Avg. 29 N/ mm ²
Min. 15 N/ mm ²		Min. 23 N/ mm ²	
14	Retention	Min 12 kg/m ³	12.13 kg/m ³
15	Formaldehyde content (Oven dry sample)	0mg-8mg/100gm(E1) ,8mg-30mg /100gm(E2)	4.7 mg/100gm

Remarks : Samples Conform to as per IS : 710 – 2024 .

For Loghorn industries Pvt Ltd.

Authorized signature

(Y jagadeesh)