

Specifications and Standards

Plain MDF Boards

S. No.	Properties	Unit	IS 12406 Grade I DWR	IS 12406 Grade II DIR	Grade I Premium Plus
1	Length & Width tolerance	mm/meter	±3.0	±3.0	±3.0
2	Thickness tolerance	mm	±0.30	±0.30	±0.30
3	Squareness & Edge Straightness tolerance	mm/meter	2.0	2.0	2.0
4	Density	Kg/m3	600-900	600-900	850-870
5	Variation from mean density	%	±10	±10	±10
6	Moisture Content	%	5 to 10	5 to 10	4 to 8
7	Variation from mean moisture content (absolute)	%	±3	±3	±3
8	Water absorption (Maximum)	%			
	a) After 2 Hr soaking		6.0	9.0	5 (≤8 mm) 3.75 (>8 mm)
	b) After 24 Hr soaking				12 (≤8 mm) 11 (>8 mm)
	i. Up to 6.0 mm thickness		30.0	45.0	
	ii. 7-12.0 mm thickness		20.0	30.0	
	iii. 13-19.0 mm thickness		13.0	20.0	
	iv. Above 20 mm thickness		12.0	18.0	
9	Linear Expansion (Swelling in water) (Maximum)	%			
	(a) Due to general absorption (24 Hr soaking)				
	i. Thickness		7.0	10.0	4.0
	ii. Length and width		0.3	0.4	0.3
	(b) Due to surface absorption				
	i. Thickness after 2hr soaking		4.0	5.0	2.0
10	Modulus of Rapture (Minimum)	N/mm2			
	(a) Up to 20 mm				
	i. Average		28.0	28.0	35
	ii. Minimum		25.0	25.0	32
	(b) Above 20 mm				
	i. Average		25.0	25.0	NA
	ii. Minimum		22.0	22.0	NA
11	Modulus of Elasticity (Minimum)	N/mm2			
	(a) Up to 20 mm				
	i. Average		2800	2800	3200
	ii. Minimum		2500	2500	3000
	(b) Above 20 mm				
	i. Average		2500	2500	NA
	ii. Minimum		2300	2300	NA
12	Tensile strength perpendicular to surface (IB)	N/mm2			
	(a) Up to 20 mm				
	i. Average		0.90	0.80	1.20
	ii. Minimum		0.80	0.70	1.00
	(b) Above 20 mm				
	i. Average		0.80	0.70	NA
	ii. Minimum		0.70	0.60	NA
13	Tensile strength perpendicular to surface (IB)	N/mm2			
	(a) After cyclic test				
	i. Average		0.45	NA	NA
	ii. Minimum		0.40	NA	NA
	(b) After accelerated water resistance test				
	i. Average		0.30	NA	0.30
	ii. Minimum		0.25	NA	0.25
14	Screw Withdrawal strength	N			
	Face		1500	1500	2000
	Edge (for thickness>12 mm)		1250	1250	1500

*NA- Not applicable