

Test Results

ASSOCIATE PLAIN PARTICLEBOARDS, GRADE II CLASS E2 & E1



PHYSICAL & MECHANICAL PROPERTIES OF ALL THICKNESSES

Sr. No	Properties	Unit	IS - 3087 Specification for Grade II	Associate standard value thickness wise for Grade II E2 Class (Interior)												E1 Class		IS - 3087 Specification for Grade I	Grade I Values (Exterior)			
				06 MM	08 MM	09 MM	11 MM	12 MM	15 MM	16 MM	17 MM	18 MM	22 MM	25 MM	30 MM	18 MM	25 MM	EXTERIOR	09 MM	12 MM	18 MM	25 MM
1	Density	Kg/m ³	500-900	765	755	745	720	720	680	680	675	675	655	Oct-01	650	675	650	500-900	750	725	685	665
2	Density variation	%	±10	±2.5	±2.5	±2.5	±2.5	±2.5	±3	±3	±3	±3	±3	±3	±3	±3	±10	±2.5	±2.5	±3	±3	
3	Moisture	%	5.0 - 15	5.0 - 13	5.0 - 13	5.0 - 13	5.0 - 13	5.0 - 13	5.0 - 13	5.0 - 13	5.0 - 13	5.0 - 13	5.0 - 13	5.0 - 13	5.0 - 13	5.0 - 13	5.0 - 15	5.0 - 13	5.0 - 13	5.0 - 13	5.0 - 13	
4	Moisture variation	%	±3	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	±3	1.5	1.5	1.55	1.5	
5	Water absorption	%																				
6	i) 2 hrs		40	8	10	10	12	12	14	14	16	16	18	18	20	16	18	10	4	5	5.5	5.5
	ii) 24 hrs		80	24	28	28	30	30	32	32	34	34	38	38	42	34	38	20	12	12.5	16	18
7	Linear Expansion (swelling in water) 2 hrs soaking																					
	a. Length	%	0.5	0.28	0.27	0.28	0.29	0.27	0.27	0.27	0.28	0.26	0.26	0.25	0.24	0.25	0.26	0.5	0.28	0.27	0.22	0.24
	b. Width	%	0.5	0.26	0.27	0.26	0.26	0.25	0.24	0.24	0.24	0.25	0.25	0.24	0.23	0.26	0.27	0.5	0.26	0.25	0.24	0.26
	c. Thickness swelling(2hrs)	%	12	3	4	4	5	5	6	6	6	6	6	6	8	8	8	8	2.2	2.5	3	3.5
8	Swelling due to surface absorption	%	9	1	1.5	1.5	1.5	1.5	2	2	2	2	2.5	2.5	3	2.5	2.5	6	1.2	1.5	2	2
9	Modulus of rupture	N/mm ²																				
	i) Average		11	21	20	20	18	18	15	15	14	14	13	12	11	13.5	12.5	15	20.5	18.5	16.5	16
	ii) Minimum		10	18	16	16	14	14	13	13	12	12	11	11	10	11	11	13	18	15	14	14
10	Modulus of elasticity	N/mm ²																				
	i) Average		2000	2600	2700	2700	2500	2500	2400	2300	2200	2200	2100	2100	2000	2200	2100	2500	2700	2600	2650	2580
	ii) Minimum		1800	2400	2440	2300	2300	2300	2200	2200	2000	1900	1900	1800	1800	1900	1800	2250	2485	2425	2150	2150
11	Tensile strength	N/mm ²																				
	i) Up to 20mm thickness		0.3	1.25	1	1	0.9	0.8	0.7	0.7	0.5	0.5	0.5	0.45	0.45	0.5	0.45	0.45	1.2	0.8	0.75	
	ii) Above 20mm thicknes		0.3															0.4				0.65
12	Screw withdrawal strength																					
	i) Face	N	1250	2900	2750	2750	2600	2600	2250	2250	2150	2150	1800	1800	1800	2266	2150	1250	2750	2550	2285	1965
	ii) Edge for thickness>12mm	N	700	N.A	N.A	N.A	N.A	N.A	1200	1200	1200	1000	900	900	800	1760	1028	850	N.A	N.A	1350	1281
13	Tensile Strength after Accelerated water resistance test	N/mm ²	N.A	N.a	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	0.15	0.2	0.2	0.17	0.16

WARRANTY: Associate warrants that all its products are free from manufacturing defects and are perfectly fit for use under normal conditions. In case of any claims the liability of the company however is limited to cost of the product only.