

**BIS Technical specifications- Solid Particle board**

Sr. No	Properties	Unit	Plain Particle Boards			Pre-laminated
			Particle Boards			Particle Boards
			IS : 3087			IS : 12823
			Grade - II	Grade - I	Grade - II	Grade - I
1	Density	Kg/m <sup>3</sup>	500-900	500-900	500-900	500-900
2	Density Variation	%	+/-10	+/-10	+/-10	+/-10
3	Moisture Content	%	5 to 15	5 to 15	5 to 15	5 to 15
4	Modulus Of Rupture	N/mm <sup>2</sup>	11	15	11	15
	Up to 20mm thickness		11	12.5	11	12.5
	Above 20mm thickness					
5	Tensile Strength	N/mm <sup>2</sup>		0.2		0.2
	Perpendicular To Surface			0.15		0.15
	a) After cyclic test					
	b) Accelerated water resistance test					
6	Water Absorption	%	40	10	15	7
	2 Hours		80	20	30	15
	24 Hours					
7	Thickness Swelling,	%	12	8	8	5

	2Hours					
	Soaking, Thickness, Length,		0.5	0.5		
	Width		0.5	0.5		
8	Swelling Due To Surface Absorption	%	9	6		
9	Tensile Strength	N/mm2	0.3	0.45	0.3	0.45
	Perpendicular To Surface		0.3	0.40	0.3	0.40
	Up to 20mm thickness					
	Above 20mm thickness					
10	Screw Withdrawal Strength	N	1250	1250	1250	1250
	Face		700	850	750	800
	Edge					
11	Abrasion Resistance					
	1) Type I					
	2) Type II					
	3) Type III					

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