

POLYBOARD IN COMPARISON WITH OTHER PANEL MATERIALS

Feature	Solid Wood board	Plywood board	H D F board	M D F board	Particle board	Straw/ OSB	Gypsum board	Cement Fiber board	POLYBOARD
WATERPROOF	X	X	X	X	X	X	X	✓	✓
WEATHERPROOF	X	X	X	X	X	X	X	✓	✓
DECAY-PROOF	X	X	X	X	X	X	X	✓	✓
DAMP-PROOF	X	X	X	X	X	X	X	✓	✓
LEAKAGE-PROOF	X	X	X	X	X	X	X	✓	✓
SOUNDPROOF	X	X	X	X	X	X	X	?	✓
CORROSION-RESISTANT	X	X	X	X	X	X	X	✓	✓
CHEMICAL-RESISTANT	X	X	X	X	X	X	X	✓	✓
FORKLIFT RAMMING-RESISTANT	X	X	X	X	X	X	X	X	✓
TERMITE-REPELLENT	X	X	X	X	X	X	?	✓	✓
FUNGI-REPELLENT	X	X	X	X	X	X	X	✓	✓
UV-RESISTANT	X	X	X	X	X	X	X	?	✓
FREEZE-THAW-RESISTANT	X	X	X	X	X	X	X	✓	✓
SAFE TO USE	✓	*UF/PF	UF/PF	UF/PF	UF/PF	UF/MDI	Fragile	Fragile	✓ No toxic glues
EASY TO USE:									
Sawing	✓	✓	✓	✓	✓	✓	✓	✓	✓
Drilling	✓	✓	✓	✓	✓	✓	✓	✓	✓
Chiseling	✓	✓	✓	✓	✓	X	X	X	✓
Routing	✓	✓	✓	✓	✓	X	X	X	✓
Nail-holding	✓	✓	Δ	Δ	Δ	X	X	X	✓
Screw-holding	✓	✓	Δ	Δ	Δ	Δ	Δ	Δ	✓
Sanding	✓	X	X	X	X	X	X	X	✓
Fabricating	✓	✓	✓	✓	✓	X	X	X	✓
Veneering	✓	✓	✓	✓	✓	X	X	X	✓
Varnishing	✓	X	X	X	X	X	X	X	✓
Painting	✓	✓	✓	✓	✓	✓	✓	✓	✓
Glueing	✓	✓	✓	✓	✓	✓	X	X	✓
Concrete form work without tar application	X	X	X	X	X	X	X	X	✓
RECYCLABILITY	X	X	X	X	X	X	X	X	✓
DENSITY (kg/m³)	580-880	600-800	800-1200	550-950	550-950	650-850	750-950 (Plasterboard same)	900-1450 (Calcium Silicate board same)	853 kg/m³
LIFE SPAN	Indoors Outdoors	Indoors Outdoors	Indoors Outdoors	Indoors Outdoors	Indoors Outdoors	Indoors Outdoors	Indoors Outdoors	Indoors Outdoors	Indoors Outdoors
✓ Yes X No Δ Insecure	30 yrs 15-20 yrs	30 yrs 1 year	7-10 yrs ?	10 yrs ?	10 yrs Unusable	? Unusable	? Unusable	? ?	Up to 250 yrs Maintenance free (All-Weather)
* UF = Urea Formaldehyde PF = Phenol Formaldehyde MDI = Isocyanate Polyurethane Depending on humidity and maintenance									

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POLYBOARD — Properties and Specifications

Testing Item	Testing Standard	Test Result	
Density	ASTM D2395-83	853 kg/m³	53.3 lbs/ft³
Impact Strength	ASTM D3029-90	5.5 mm/kg	40.0 ft/lbs
Flexural Strength-Maximum Fibre Stress	ASTM D790-91	Long. 36.0 MPa Trav. 25.0 MPa	5 058.0 psi 3 512.5 psi
Flexural Modulus of Elasticity	ASTM D790-91	Long. 556.5 MPa Trav. 315.6 MPa	78 200 psi 44 342 psi
Tensile Strength	ASTM D638-91	Long. 9.0 MPa Trav. 7.0 MPa	1 264.5 psi 983.5 psi
Moisture Content	ASTM D4442-92	0.35%	0.35%
Water Absorption	ASTM D570-81	1.9%	1.9%
Compression Rating (Hardness)	ASTM D1037-91	30 711.9 kPa	4 451 psi
Thermal Resistance (R Value)	ASTM C518-84/E380-9a	0.244 (m²·KW)	1.386 (F·ft²·h /Btu)
Sound Transmission Loss (80-6,300 Hz)	ASTM E90-90/E492-90	56.5 dB	56.5 dB
Dimensional Stability – Creep Modulus	ASTM D2990	3.8 MPa/cm	551 psi/in
Dimensional Stability – Load Deflection	ASTM D2990	1.42 • 10 <sup>-2</sup> of Span	1.42 • 10 <sup>-2</sup> of Span
Flammability	UL 94HB	21.9 mm/min	21.9 mm/min†

★ All ASTM tests are performed in compliance with the National Research Council Canada Guidelines with certificates. †Specified Maximum: 40 mm/min.

Thickness : 1/4" 3/8" 1/2" 5/8" 3/4" 1" 1 1/4" 1 1/2" 1 5/8" 1 3/4"  
(6 mm) (9 mm) (12 mm) (16 mm) (18 mm) (25 mm) (28 mm) (32 mm) (38 mm) (44 mm)

Weight : 1.2 lbs 1.6 lbs 2.3 lbs 2.9 lbs 3.2 lbs 4.4 lbs 5.0 lbs 5.5 lbs 6.5 lbs 7.5 lbs (sq. ft.)

Sheet size : 4' X 8' (1220 mm X 2440 mm) or any custom-cut size. Square edge

Texture : Smooth – matt surface / Woodgrain

Color : Standard Colors – Greenish White and Grey. Cedar, Clay, Brown, Tan, Grey, Ash Grey, Hunter Green, Green, Red, Magenta, Orange, Purple, Yellow, Lemon Yellow, Dark Blue, Light Blue, Blue, Black, White.

Woodgrain : Oak, Light Oak, Cherry, Walnut, Rosewood, Mahogany, Teak, Ash, Maple, Beech

You are welcome  
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