



1. Product Name

Stonewood™ Interior Architectural Panels

2. Manufacturer

Fiberesin Industries, Inc.
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Web Sites: www.stonewoodpanels.com, www.fiberesin.com

3. Product Description

BASIC USE AND APPLICATION

Stonewood Interior Architectural Panels are used as interior wall panels for commercial applications such as office, medical, or educational settings, installed together with clips (reference section 5) or adhesives.

BENEFITS

Stonewood Interior Architectural Panels offer the strength and durability of a solid phenolic core as well as excellent durability and moisture resistance. Multiple colors and design offerings are available, as are custom designs. UL Class A and Class B fire rated options are available.

MATERIAL

Stonewood Panels are manufactured with a core of phenolic resin-impregnated kraft paper with a decorative face layer and protective overlay layer impregnated with melamine resin. The layup is compressed at high pressure and temperature. The surface pattern is available in numerous colors and patterns, while the core is standard black or natural brown.

Schematic shows the buildup of a typical Stonewood Panel.

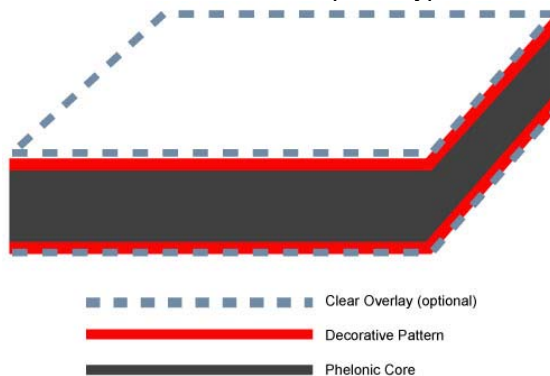


Figure 1 – Stonewood composition



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PANEL DIMENSIONS

Stonewood Interior Architectural Panels are offered in standard 4'x8' sheets and manufactured in different thicknesses. Standard thicknesses are: 3 mm, 1/8", 3/16", 5 mm, 6 mm, 1/4", 5/16", 8 mm, 3/8", 10 mm, 11 mm, 7/16", 1/2", 13 mm, 19 mm, 3/4", 25 mm, 1".

GREEN CHARACTERISTICS

Standard Stonewood Panels are manufactured with fibers extracted from sustainably-managed forests and contain at least 16% post-industrial wood fiber content. The Stonewood Panel manufacturing facility has been BIFMA level® certified.

Fiberesin also offers a 100% post-consumer Stonewood product (Class B fire rated only).

4. Technical Data

NEMA Test Results

Description	Test	NEMA Requirements			
Thickness			0.156"	0.250"	0.500"
Light Resistance	3.3	Slight Effect	Slight Effect	Slight Effect	Slight Effect
Cleanability/Stain Resistance	3.4	Unaffected by Reagents 1-10	No Effect	No Effect	No Effect
			Moderate Effect	Moderate Effect	Moderate Effect
Cleanability		Cleanability 20	10	10	10
Resistance to Boiling Water	3.5	No Effect	No Effect	No Effect	No Effect
Resistance to High Temperature	3.6	Slight Effect	No Effect	No Effect	No Effect
Ball Impact Resistance: Inches Drop	3.8	75"	90"+	96"+	96"+
Dimensional Change: Length (Machine Direction) Width (Cross Direction)	3.11	0.3% Maximum 0.7% Maximum	0.25%	0.25%	0.25%
			0.50%	0.50%	0.50%
Wear Resistance: Wear Values (Cycles)	3.13	400 Minimum	700	700	700
Weight Per Unit Area Lbs/ft ² Kg/m ²			1.07	1.71	3.42
			5.2	8.35	16.7
Density (PCF)			82	82	82

Property	NEMA Requirements	0.156"	0.250"	0.500"
Flexural Strength ASTM D-790				
MD (psi)	18,000	20,000	20,000	20,000
CD (psi)	12,000	16,000	16,000	16,000
Flexural Modulus ASTM D-790				
MD (psi)	1.6x10 ⁶	2.0 x 10 ⁶	2.0 x 10 ⁶	2.0 x 10 ⁶
CD (psi)	1.4x10 ⁶	1.5 x 10 ⁶	1.5 x 10 ⁶	1.5 x 10 ⁶
Tensile Modulus ASTM D-638				
MD (psi)	18,000	18,000	18,000	18,000
CD (psi)	12,000	13,000	13,000	13,000

Fire Resistance

Thickness	Product Type	
	Class A	Class B
	0.250"	0.250"
Flame Spread Index - ASTM E-84 (BLDG)*	15	30
Smoke Developed Values - ASTM E-84 (BLDG)*	15	105
Fire Rating* (Standard Product is Class B)	A	B*

*Test Method: ASTM E84-13a – Standard Test Method for Surface Burning Characteristics of Building Materials. Also known as NFPA 255, UL 723, and UBC 8-1.

Manufacturing Tolerance

Thickness (.156 to .375)	+/- .020
Thickness (above .375 to 1.000)	+/- .030
CNC Shaped Size (Length-Width)	+/- .020
Drill Diameter	+/- .003
Drill Depth	+/- .020
CNC Hole to Hole	+/- .020
CNC Hole to Edge (1 Oper)	+/- .020
CNC Hole to Edge (2 Oper)	+/- .030
Routing - (Slots Width and Length)	+/- .015
Routing - (Slots Depth)	+/- .020

5. Installation

STORAGE AND HANDLING

- A. Transport materials in manufacturer's original unopened containers/packages, with labels clearly identifying product name, manufacturer, color/texture, and weight.
- B. Always transport and store horizontally.
- C. Store materials in clean, dry area in accordance with manufacturer's instructions.

INSTALLATION GUIDELINES

- A. Fibersin recommends clips from Brooklyn Hardware, LLC (www.panelclip.com).
- B. Two types of clips: Panelclip®Classic, Panelclip®SE, figure 2.

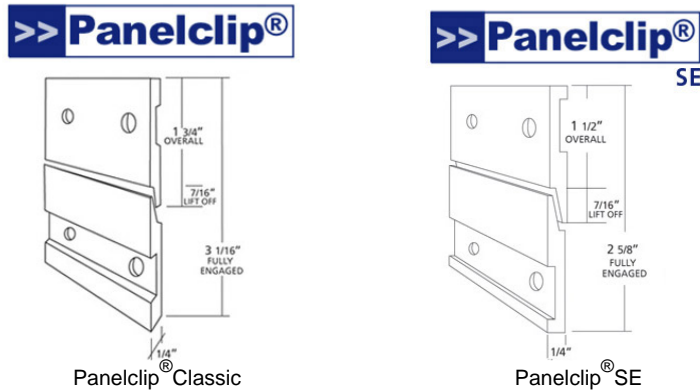


Figure 2 – Clips recommended by Fibersin.

- C. Clips work in pairs. Part A (top clip) is attached to the panel, and part B (bottom clip, also called furring channel) is fastened to the structural wall. Figure 3 shows how the system works for a 4'x8' panel.

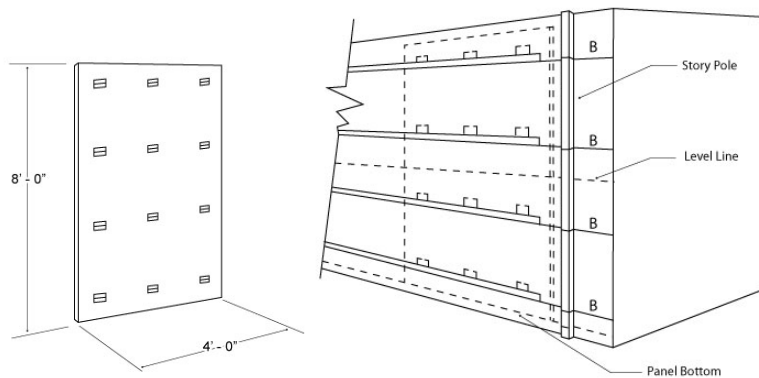


Figure 3 – A schematic shows how clips work with Stonewood Panels for interior wall installation

- D. Fibersin recommends continuous part B of the clip (up to 8' long, also called furring channel) and standard 2-1/2" wide part A for holding the Stonewood Panel.
- E. Consult the clip manufacturers for proper fastening of the furring channel to the wall.
- F. Fibersin recommends a pan head screw to attach the part A clip to the back of panel. For thinner boards, two-part epoxy adhesive can be used instead.
- G. Follow the adhesive instruction for the proper cure of the epoxy between metal clip and Stonewood Panel.
- H. Fibersin recommends minimum 3 clips in the 4' direction, and 4 lines of furring channel in the 8' direction, for 4'x8' panel.
- I. Choose appropriately-sized screws (up to #10) based on the panel thickness so the screw does not penetrate through the panel (concealed).
- J. Drill appropriately-sized pilot holes for the corresponding screw size/diameter.
- K. The most outside screws should be 1-3" away from the panel edges.
- L. Leave 1/4" gap between panels to allow hygrothermal movement.



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BEST PRACTICE OVERVIEW

Fabrication and installation of Stonewood Architectural Panels should be performed only by experienced professionals. On-site fabrication is permitted, but shop fabrication is recommended.

LIMITATIONS

- A. Simple cleaning of the Stonewood Panel is the only maintenance needed.
- B. Repair – there is no prescribed method for repairing the panels.

6. Availability

Stonewood Architectural Panels are available throughout North America. Go to www.stonewoodpanels.com or contact sales at 262-567-4427 or info@fiberresin.com.

7. Warranty

Stonewood Architectural Panels carry a 10-year product warranty.