

**1. Product Name**

**Stonewood Interior Architectural Panels**

**2. Manufacturer**

Fiberesin Industries Inc.  
37031 E. Wisconsin Avenue  
PO Box 88  
Oconomowoc, WI 53066  
Phone (262) 567-4427  
Fax (262) 567-4814  
Web Sites: [www.stonewoodpanels.com](http://www.stonewoodpanels.com), [www.fiberesin.com](http://www.fiberesin.com), [www.edgemold.com](http://www.edgemold.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).

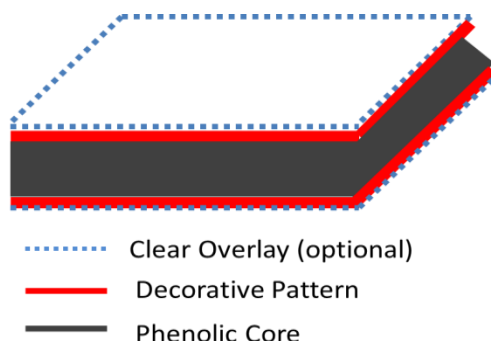
**BENEFITS**

Stonewood Interior Architectural Panels offers the strength and durability of a solid phenolic core as well as excellent durability and moisture resistance. Countless options of decorative patterns/designs are available. UL Class A and Class B fire rated options are available.

**MATERIAL**

Stonewood is 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.

Figure 1 shows schematically the build-up of a typical Stonewood panel.



*Figure 1 – Stonewood composition*

## PANEL DIMENSIONS

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

## GREEN CHARACTERISTICS

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

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

## 4. 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.
- D. Normal woodworking or metal working tools are applicable for sawing/drilling.
- E. For best results, use carbide-tipped saw blade and router bits with reduced cutting speed.

### INSTALLATION GUIDELINES

- A. Fiberesin recommends clips from Brooklyn Hardware, LLC ([www.panelclip.com](http://www.panelclip.com))
- B. Three types of clips: Panelclip, Kingclip, and Vclipz (Figure 2)

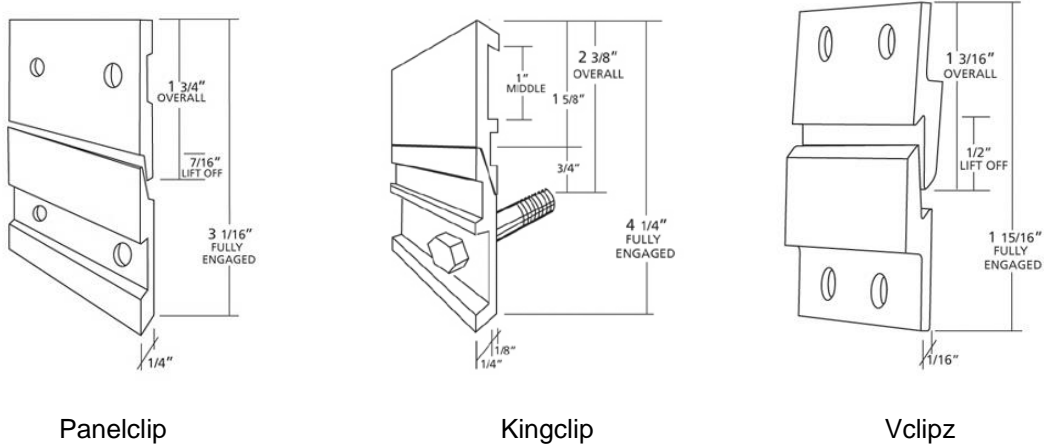


Figure 2 – Clips recommended by Fiberesin

- 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 schematically shows how the system works for a 4'x8' panel.

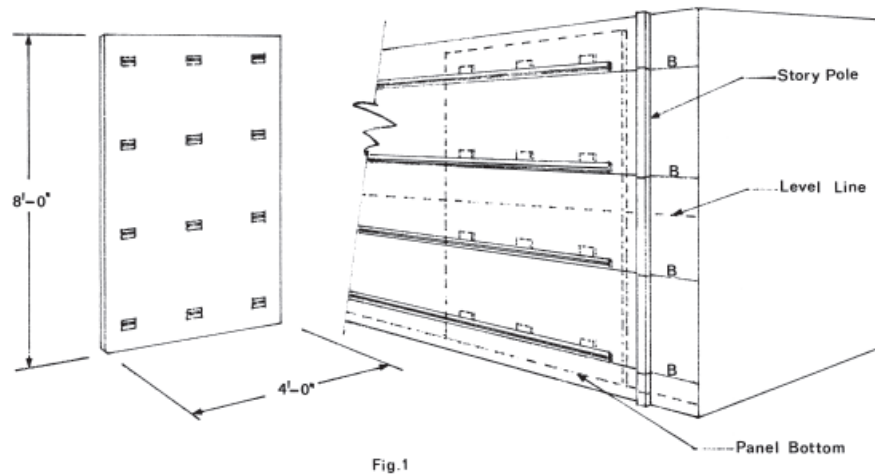


Figure 3 – A schematic how clips work with Stonewood for interior wall installation

- D. Fiberesin 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. Fiberesin 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.
- H. Fiberesin recommends minimum 3 clips in the 4' direction, and 4 lines of furring channel in the 8' direction, for 4'x8' panel.
- I. Choose appropriate sized screws (up to #10) based on the panel thickness so the screw does not penetrate through the panel (concealed).
- J. Drill appropriate 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 hydro-thermal movement.

## 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 Stonewood panel is the only maintenance need.
- B. Repair – there is no prescribed method for repairing the panels.

### 5. Availability

Stonewood exterior claddings and curvature are available throughout North America; go to [www.stonewoodpanels.com](http://www.stonewoodpanels.com) or contact sales at (262) 567-4427 or [sales@fiberesin.com](mailto:sales@fiberesin.com).

### 6. Warranty

Stonewood Architectural panels carry a 10-year product warranty.

## 7. Technical Data

### NEMA Test Results

| Description                    | Test ID | NEMA Requirements           | Class A         | Class B         |
|--------------------------------|---------|-----------------------------|-----------------|-----------------|
| Light Resistance               | 3.3     | Slight Effect               | Slight Effect   | Slight Effect   |
| Cleanability                   | 3.4     | Cleanability < 20           | 10              | 10              |
| Stain Resistance               |         | Unaffected by Reagents 1-10 | No Effect       | No Effect       |
|                                |         | Moderate 11-15              | Moderate Effect | Moderate Effect |
| Resistance to Boiling Water    | 3.5     | No Effect                   | No Effect       | No Effect       |
| Resistance to High Temperature | 3.6     | Slight effect               | No Effect       | No Effect       |
| Ball Impact Resistance:        | 3.8     | 75"                         | 90"+            | 90"+            |
| Dimensional Change: Length     | 3.11    | 0.3% Maximum                | 0.25%           | 0.25%           |
| Dimensional Change: Width      |         | 0.7% Maximum                | 0.50%           | 0.50%           |
| Wear Resistance:               | 3.13    | 400 Cycle Minimum           | 700 Cycle       | 700 Cycle       |

### Mechanical Properties

| Property                     | Direction         | Class A               | Class B               |
|------------------------------|-------------------|-----------------------|-----------------------|
| Flexural Strength ASTM D-790 | Machine Direction | 18,000                | 20,000                |
|                              | Cross Direction   | 12,000                | 16,000                |
| Flexural Modulus ASTM D-790  | Machine Direction | 1.5 x 10 <sup>6</sup> | 1.9 x 10 <sup>6</sup> |
|                              | Cross Direction   | 1.1 x 10 <sup>6</sup> | 1.3 x 10 <sup>6</sup> |
| Tensile Modulus ASTM D-638   | Machine Direction | 15,000                | 18,000                |
|                              | Cross Direction   | 10,000                | 12,000                |

### Fire Test Data

| Property                                   | Information  | Class A | Class B |
|--|--|---------|---------|
| Flame Spread Index<br>ASTM E-84 (BLDG)     | Tests was performed on a 0.25" panel.<br>Class B is considered to be the Standard Product. | 0       | 50      |
| Smoke Developed Values<br>ASTM E-84 (BLDG) |  | 5       | 200     |

### Physical Characteristics

|                     | Weight Per Unit Area |             |              |
|---------------------|----------------------|-------------|--------------|
|                     | 0.156"               | 0.250"      | 0.500"       |
| Thickness           | 0.156"               | 0.250"      | 0.500"       |
| Density PCF         | 86 ± 3               | 86 ± 3      | 86 ± 3       |
| Lbs/ft <sup>2</sup> | 1.12 ± 0.04          | 1.79 ± .06  | 3.58 ± .13   |
| Kg/m <sup>2</sup>   | 5.47 ± 0.20          | 8.74 ± 0.29 | 17.47 ± 0.64 |

### Chemical Resistance Testing

| Test Name                   | Result                            |
|-----------------------------|-----------------------------------|
| SEFA 8-PH-2010, Section 8.1 | Passed Testing / SEFA 3 Compliant |

### General Manufacturing Tolerances

| Measurement                        | Tolerance (in) |
|------------------------------------|----------------|
| 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         |