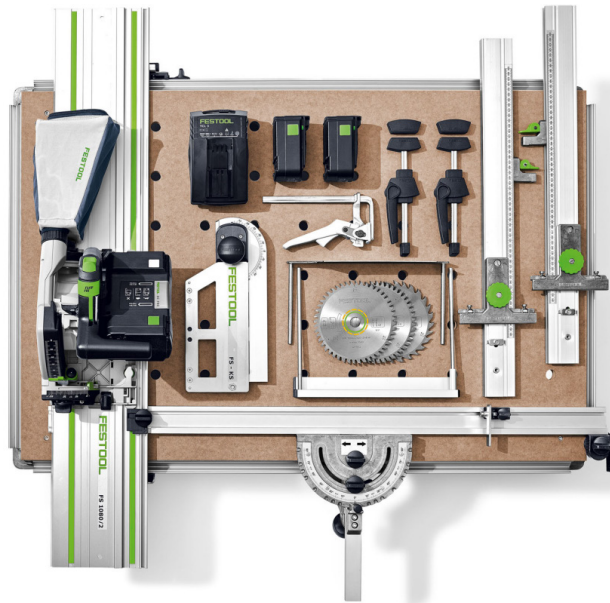




STONEWOOD™  
ARCHITECTURAL PANELS  
PROUDLY MADE IN AMERICA

# STONEWOOD INTERIOR PANEL TECHNICAL GUIDE



STORAGE AND HANDLING  
FIELD FABRICATION  
FACTORY PROCESSING GUIDELINES  
PANEL INSTALLATION  
CLEANING AND MAINTENANCE

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Stonewood Interior Architectural Panels

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# Overview

## ABOUT STONEWOOD INTERIOR PANELS

Stonewood Interior Architectural Panels (Division 09 Finishes, Interior) are solid phenolic panels manufactured by Fibersin. Panels are installed using mechanical fastening systems or adhesives. This Technical Guide does not address the

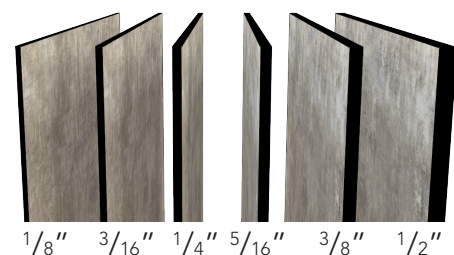
selection, design, and mounting of the substructure to the structural wall.

To meet the local building code, building professionals should be consulted for the final layout of the fastening/attachment plan of Stonewood Interior Panels to the substrates.

## PANEL SIZES

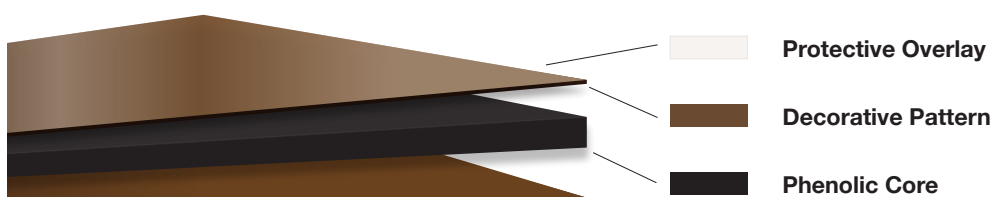


## PANEL THICKNESS



## COMPOSITION

Stonewood is manufactured with a core of phenolic resin, impregnated kraft paper and a face of melamine resin impregnated with a decorative pattern. These layers are compressed at high pressure and temperature.



## MOUNTING TYPE AND SUBSTRATE OVERVIEW

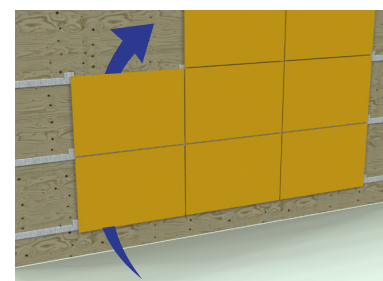
Panel Thickness	Mounting Type				
	Exposed Fasteners	Z-Clip with Mechanical Fasteners	Z-Clips with Adhesive	Z-Clips with Adhesive Tape	Adhesive only
1/8"	X		X	X	X
3/16"	X		X	X	X
1/4"	X		X	X	
5/16"	X	X		X	
3/8"	X	X			
1/2"	X	X			
Substrates					
Plywood	X	X	X	X	X
OSB	X	X	X	X	X
Plaster	X	X	X	X	
Wall Stud	X	X	X	X	

## Panel Weights 48" x 96"

1/8"	29 lbs
3/16"	43 lbs
1/4"	57 lbs
5/16"	72 lbs
3/8"	86 lbs
1/2"	115 lbs

## AIR GAP

Stonewood Interior Panels are required to have an air gap between the substrate and panel to ensure long-term performance.



# Stonewood Exterior/Interior Panels Care, Handling and Storage

## MATERIAL RECEIPT

- Verify condition of package.
- All product is quoted FCA factory. If there is visible damage, it is the responsibility of the buyer to file a freight claim for any damage within 24 hours of receipt.

## PACKAGING AND MOVING

- Keep panels on pallets.
- Fasten panels using straps within vehicle.
- Protect edges with packing material such as: corners/blanket.

## HANDLING OF EXTERIOR PANELS

**Do not scratch the uv protective surface during handling, machining and installation.**

- Panels are shipped with protective foam dividers or Clear Peel Coat between each panel.
- Always use the foam dividers or ensure Peel Coat is intact when stacking panels.
- Keep foam dividers or Peel Coat in place until ready to install.

## STORAGE

- Keep load stored within outer wrap until use.
- Keep panels dry, by storing indoors, in original packaging until installation.
- Remove pallet straps once load is moved to storage area.
- Store panels flat, on a smooth, dry surface—ensure there are no bends or bowing in the load.
- Reseal protective wrap if partial load is used.

## CLEAR PEEL COAT ON EXTERIOR PANELS

- Peel Coat is intended to protect the surface of panels during transportation and fabrication.
- Peel Coat is not intended for long term storage.
- Hot/cold temperatures may affect removal of the Peel Coat.
- **IMPORTANT:** Remove Peel Coat **PRIOR** to vacating installation premises.

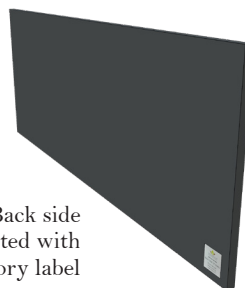


- **Do Not store panels on edges or uneven surfaces.**
- **Do Not let panels slip or slide into each other.**
- **Do Not** store directly on cold concrete floors as moisture may migrate.
- **Do Not** store under heating or air conditioning units.
- **Damage resulting from improper storage or handling will void the warrantee.**

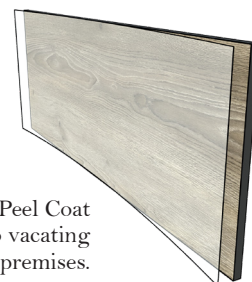
## EXTERIOR SINGLE-SIDED PANELS

Panels are NOT identical on both sides. The Front Side faces outward (away from the building) and has the removable Peel Coat. The Back Side is designated with a factory label. Installers are responsible for making sure that the appropriate (Front) side is visible.

Back side  
designated with  
factory label



Remove Peel Coat  
**PRIOR** to vacating  
installation premises.





# Field Fabrication Cutting Guidelines

## GENERAL SAFETY

- Wear appropriate personal protection gear such as safety glasses and ear protection.
- Always follow manufacturer equipment and/or tool safety recommendations.
- Read and follow instruction manual before beginning work.
- Ensure all tools are properly grounded, never remove the third prong.
- Do NOT use electric power tools in a damp or wet area.
- Do NOT force tools or attachments to a job it was not designed to perform.
- Safety training, knowledge and product use is the responsibility of the facility owner, employees or designated contractor team(s).



## REQUIRED EQUIPMENT—Cutting



Festool 55 REQ Plunge Cut Track Saw or equivalent



Festool 496309 blade or Aluminum/Plastic saw blade equivalent



Recommended: guide rails to improve cut accuracy and protect panel surface



Set up guide rails, and support panel on appropriate supports

# Field Fabrication Cutting Guidelines

## CUTTING GUIDELINES

- Place panels on a support panel for all cutting and drilling
- Square panels before cutting using rail guide
- Set-up Festool or similar track saw and panels on appropriate cutting surface, allowing for exact squaring of each panel before cutting
- Make required cut
- Inspect edge for smooth finish. Chipping or burring may indicate a new blade is required.



**Drilled using hard metal drill bits or steel bits with diamond or carbide tips and a cutting angle of 60°**



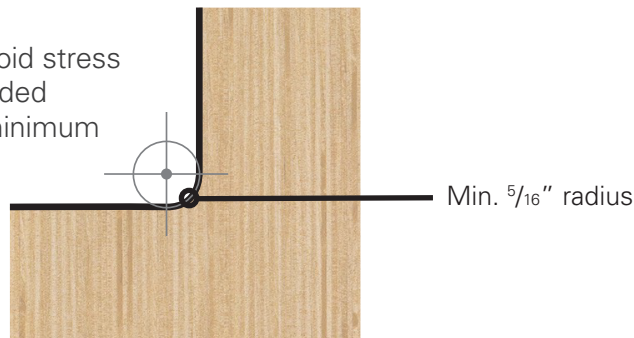
## FIELD DRILLING

Stonewood panels are drilled using hard metal drill bits or steel bits with diamond or carbide tips and a cutting angle of 60 degrees. Bits designed for perforating metal may also be used.

- Supporting sheets (plywood, chipboard) must be used under the panel to ensure clean hole and eliminate "breakout."
- To avoid breakout, the feed speed of the drill head and pressure applied should be gradually reduced when approaching the point of breakthrough.
- When properly drilled, there should not be any chipping around the hole

## ROUND CORNER CUT-OUT

Round off corners at cut-outs to avoid stress cracks or cracking. The recommended radius for all internal cut-outs is a minimum of  $\frac{5}{16}$ " radius.



# General Guidelines

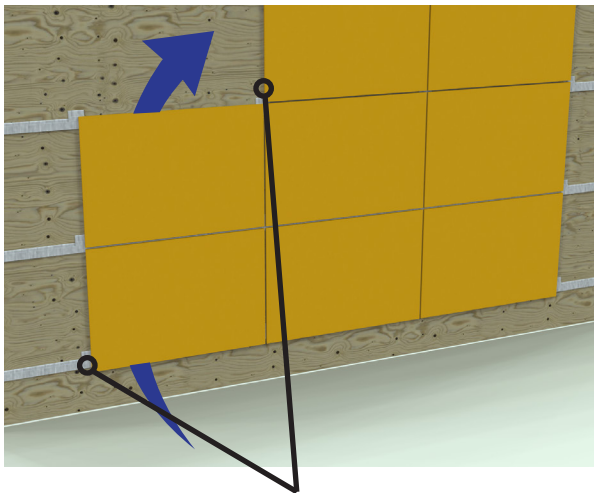
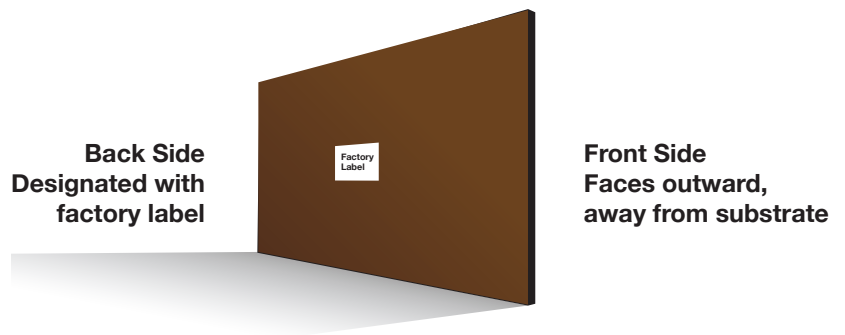
## GENERAL GUIDELINES

1. These instructions are general guidelines of how Stonewood Interior Panels are installed to attachment systems (by others).
2. Fibersin, manufacturer of Stonewood Panels, is not responsible for attachment system installation and warranty.
3. Installers are responsible for making sure that the Front Side of the Stonewood Panel is visible.
4. Ensure attachment hardware (by others) is onsite.
5. Ensure correct hardware and trim pieces are available for corners, trims, joints and overlapping joints.
6. Ensure panels are clean.
7. Cut panels to size allowing for trim or edge profiles (see Field Fabrication Gutting Guidelines).

## SINGLE-SIDED PANELS

Panels are NOT identical on both sides. The Front Side faces outward (away from the substrate) The Back Side is designated with a factory label.

It may appear that both sides are identical, the Back Side could have minor imperfections, and therefore should always face the substrate. The construction buildup is identical, providing uniform balance.

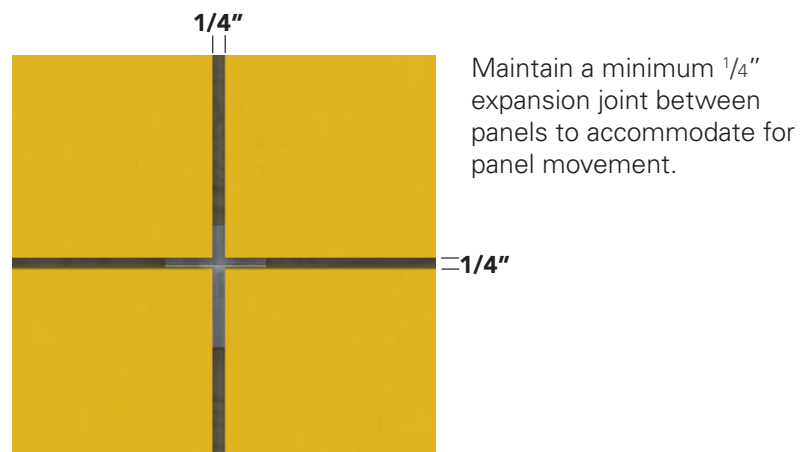


For existing buildings, where walls have been thoroughly dried, maintain a minimum air flow cavity of  $\frac{1}{8}$ "

For new buildings, or buildings with damp walls, maintain a minimum air gap of  $\frac{1}{2}$ "

## REAR VENTILATION

Rear ventilation (or air flow cavity) between the base of the panel—at the floor line and the top of the panel—at the ceiling is required to ensure proper panel performance. Rear ventilation gap may vary depending on attachment system and/or panel thickness. **Note: most clip systems provide rear ventilation**

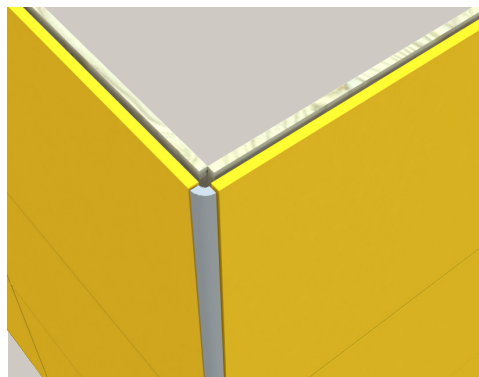


# General Guidelines

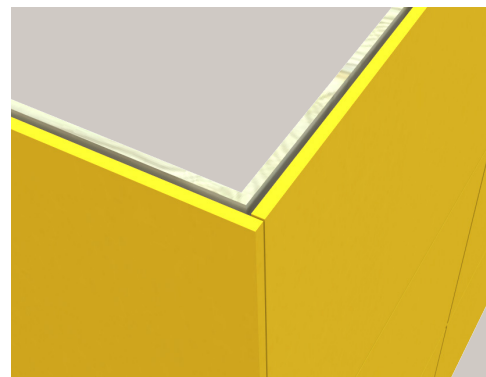
## PANEL CORNERS

When two corners come together there are two options:

1. Use an extrusion or reveal (by others) at the corner
2. Overlap corners

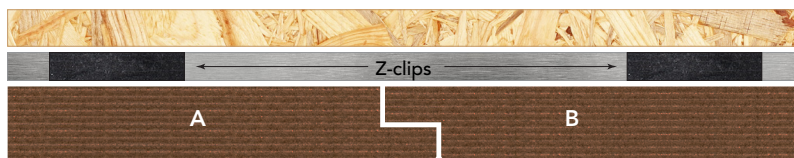


Corner Profile using extrusion or reveal

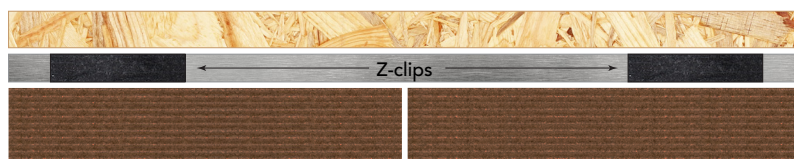


Overlapping Corner

## MACHINING OPTIONS

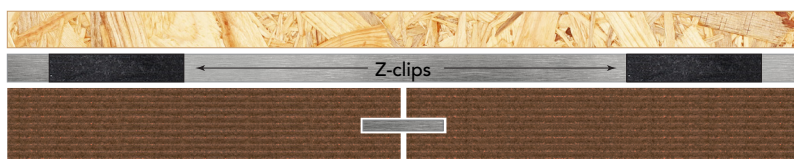


Lap Joint

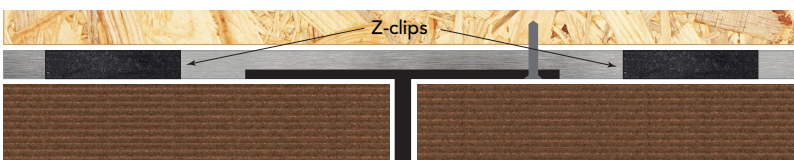


Butt Joint

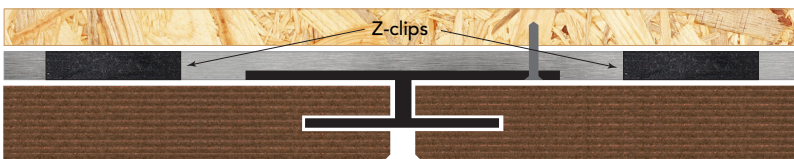
## BY OTHERS



Splined Reveal (fixed one side)



H-molding (fixed one side)



H-molding Reveal (fixed one side)

## JOINT OPTIONS

There are multiple methods for bringing two panels together. Trim options (by others) are also acceptable.

Always observe the 1/4" expansion joint requirement between panels.



# Panel Installation : Exposed Fasteners

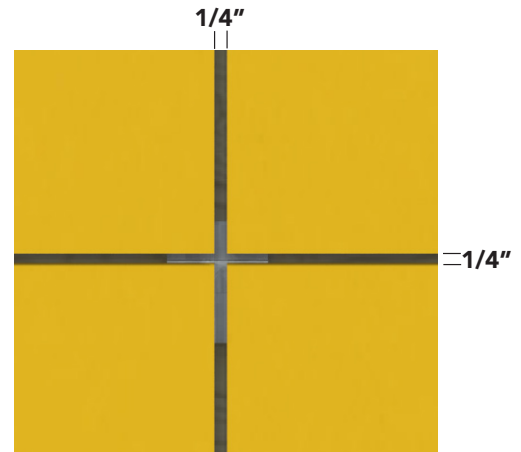
## EXPOSED FASTENERS

Exposed fasteners can be used with the following panel thicknesses and substrate types.

Mounting Type	
Panel Thickness	Exposed Fasteners
1/8"	X
3/16"	X
1/4"	X
5/16"	X
3/8"	X
1/2"	X
Substrates	
Plywood	X
OSB	X
Plaster	X
Wall Stud	X

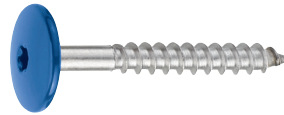
## EXPOSED FASTENING INSTALLATION BEST PRACTICES

- Panels must be supported by the maximum surface area of subframe element.
- Minimum of 3 supports, vertically and horizontally are required except for planks under 20"
- Maximum space between fasteners 12-24" (fig. 1, Pg. 9)
- Distance between the edge mounting points and the panel edges must be 1"
- Leave 1/4" expansion joint between panels on all sides to allow hygrothermal movement.



## FASTENERS BY OTHERS

Fibersin recommends fasteners from SFS.: TW-S-D12 for wood furring's and the SX3-D12 for metal furring's, visit [sfsintecusa.com](http://sfsintecusa.com) for more information.



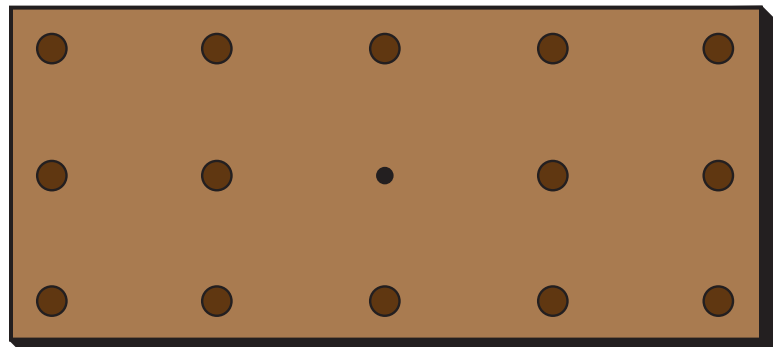
**TW-S-D12:** 1 fixed at 3/16" (4.7 mm) remainder floating at 9/32" (7.2mm)



**SX3-D12:** 1 fixed at 7/32" (5.5mm) remainder floating at 5/16" (8mm)

## FIXED AND FLOATING POINTS

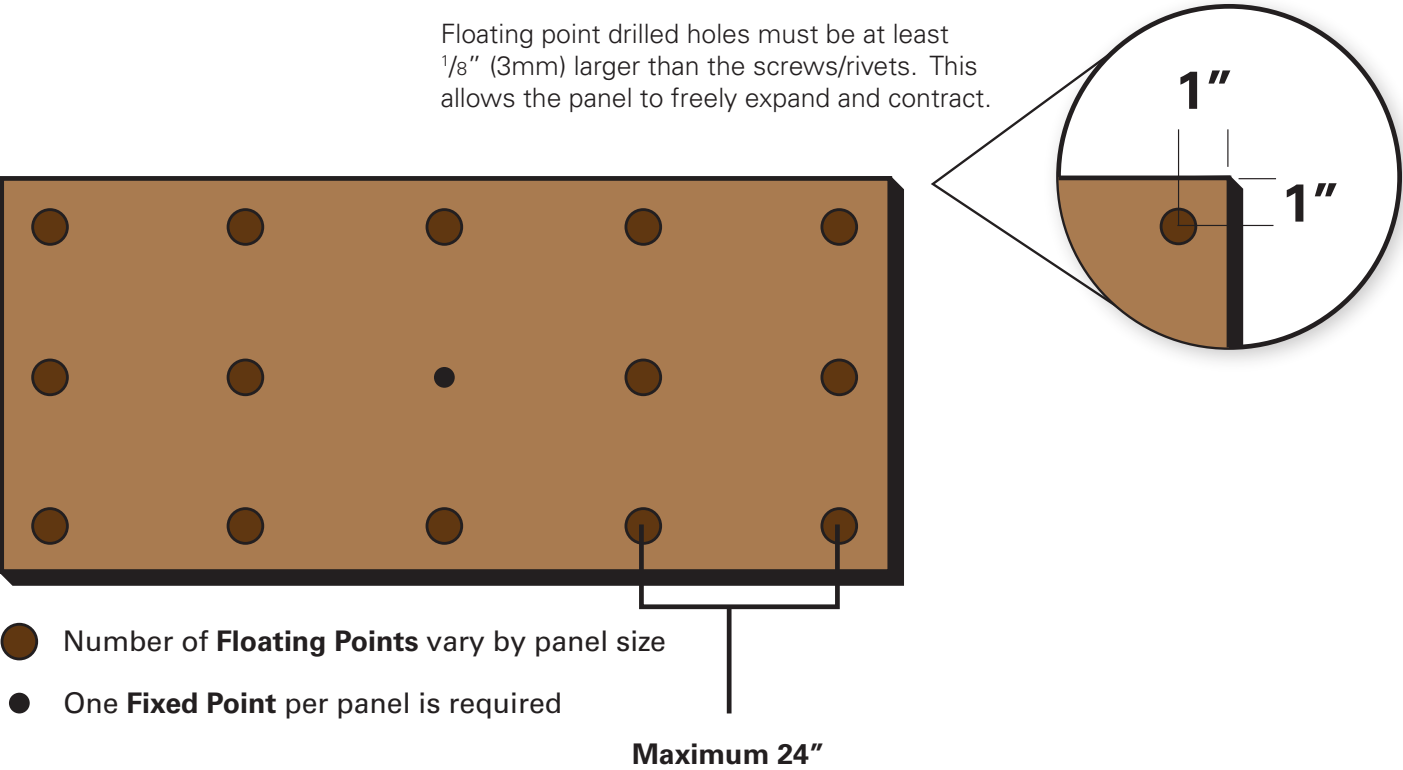
- Fixed- and floating-point holes are required on every panel.
- The fixed point is the same size as the screw shaft.
- Note: Floating holes should be 1/8" (3 mm) larger than fastener.**



- Number of **Floating Points** vary by panel size
- One **Fixed Point** per panel is required

# Panel Installation: Exposed Fasteners

## FIXED AND FLOATING POINTS (continued)



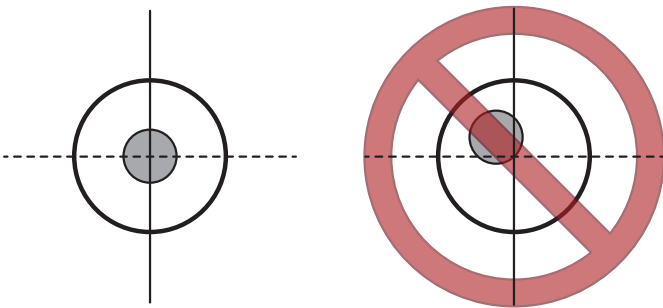
## MAXIMUM DISTANCE BETWEEN FASTENERS

Panel Thickness	2 Fasteners in one direction	3 or more Fasteners in one direction
1/8"	12"	12"
3/16", 1/4", 5/16", 3/8", 1/2"	24"	24"

Fig. 1

## SCREW POSITIONING

Insert the screw at the center of the hole and ensure that the fastener head is completely level to the panel surface. Fasteners must be centered in oversized holes to allow for panel movement. Use self-centering bit for oversized holes. **DO NOT over tighten fasteners.**

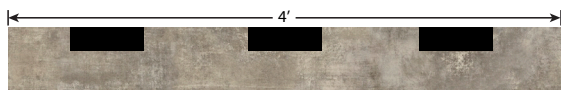
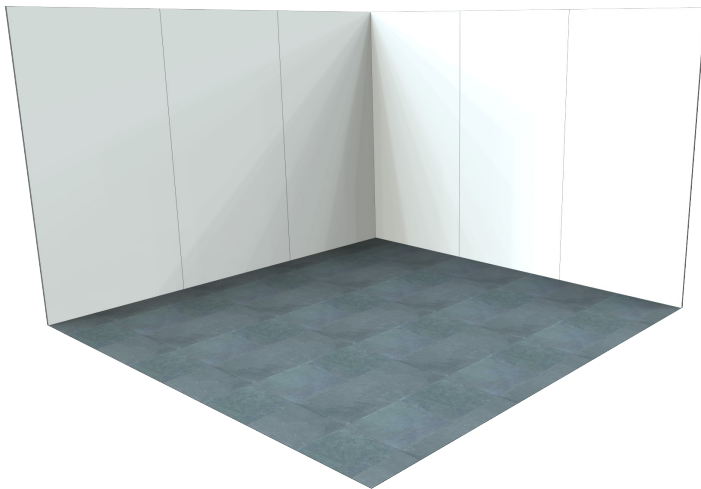




# Panel Installation: Concealed Fasteners

## WALL PREPARATION

- Pre-inspect walls for flatness
- Determine if shims/lathe will be needed
- If sufficiently flat, install optional inside corners and J-channels



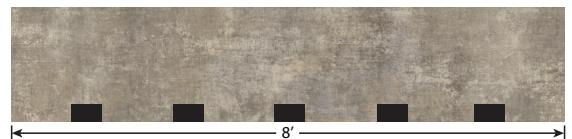
Use a minimum of three (3) clips in the 4' direction (width).

## INTERIOR INSTALLATION INSTRUCTIONS

- Clips work in pairs. Top clip is attached to the panel, and bottom clip (also called furring channel) is fastened to the structural wall.
- Use Z-Clip furring channels and top clips for holding the Stonewood Panel. Always consult the clip manufacturer's installation guidelines for proper fastening of the furring channel to the wall.
- For panels thicker than  $\frac{5}{16}$ " use a pan head screw to attach the top clip to the back of the panel.
- For panels  $\frac{5}{16}$ " or thinner remove the protective layer from the VHB tape or apply adhesive to the back of the panel.

### Thickness

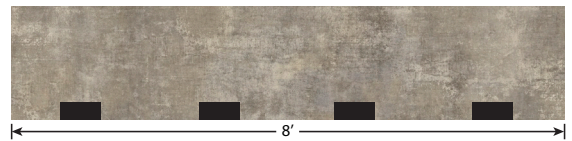
$\frac{1}{8}$ "  
 $\frac{3}{16}$ "  
 $\frac{1}{4}$ "



Use five (5) clips in the 8' direction, for 4'x8' panel to ensure flatness

### Thickness

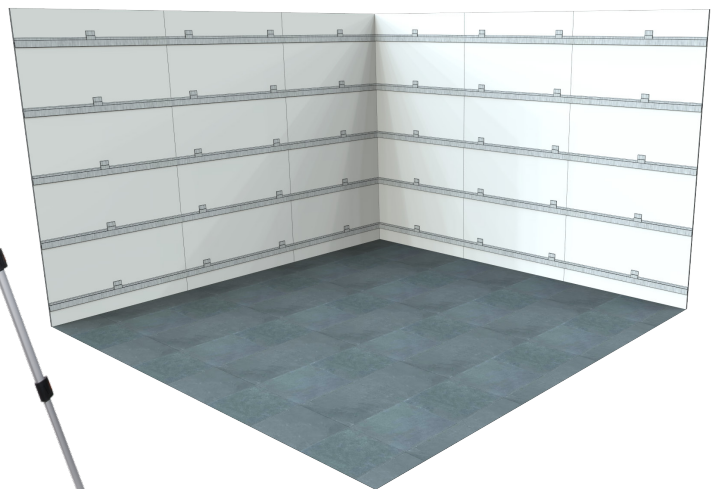
$\frac{5}{16}$ "  
 $\frac{3}{8}$ "  
 $\frac{1}{2}$ "



Use four (4) clips in the 8' direction, for 4'x8' panel

## Z-CLIP INSTALLATION

- Use a scope or laser leveler
- Determine vertical spacing dependent on panel size and thickness
- Attach Z-Clip furring channels as required
- Use shim strips to plumb as needed
- Allow sufficient space on the top and bottom to attach panels with clips per manufacturer's liftoff requirements.



# Panel Installation: Concealed Fasteners Z Clip Mechanical Fasteners

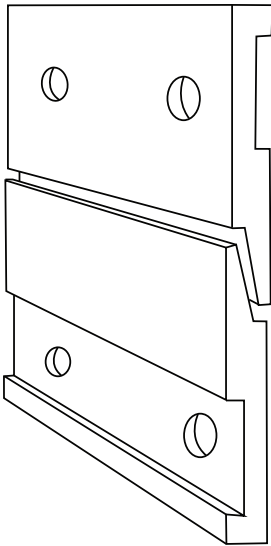
## Z CLIP WITH MECHANICAL FASTENERS

- A. Choose appropriately sized screws (up to #10) based on the panel thickness. Use rust-resistant aluminum or stainless-steel fasteners. Ensure the screw does not penetrate through the panel and remains concealed. Fibersin recommends CFF5 stainless steel Torx-drive self-drilling fasteners by Facade Supply [facadesupply.com](http://facadesupply.com) or equivalent.
- B. Drill appropriately sized pilot holes for the corresponding screw size/diameter.

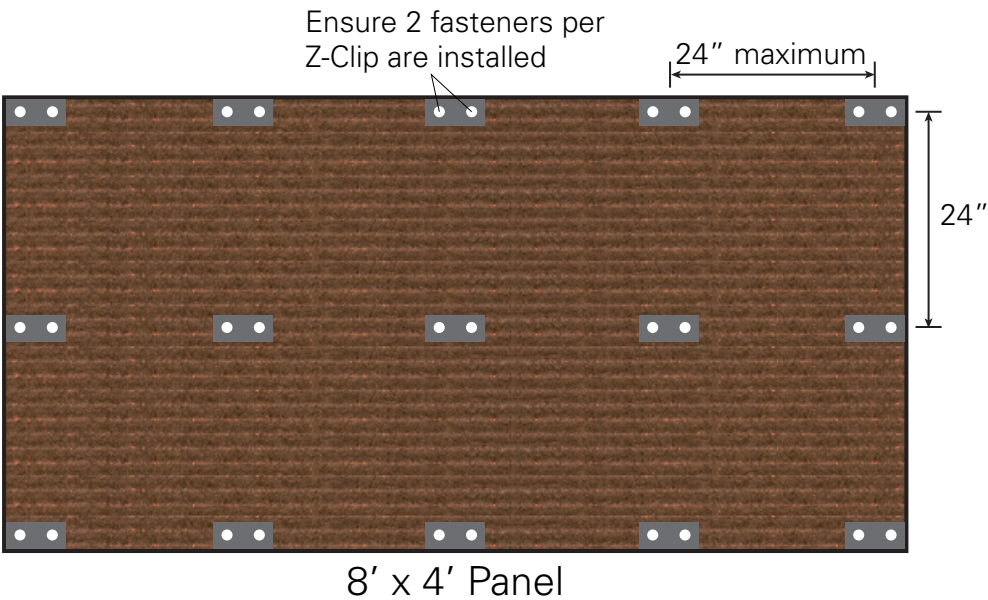
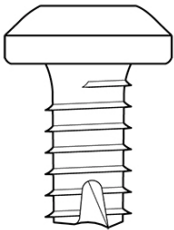


## MOUNTING TYPE AND SUBSTRATE OVERVIEW

Mounting Type	
Panel Thickness	Z-Clip with Mechanical Fasteners
1/8"	
3/16"	
1/4"	
5/16"	X
3/8"	X
1/2"	X
Substrates	
Plywood	X
OSB	X
Plaster	X
Wall Stud	X



Fibersin recommends CFF5 stainless steel Torx-drive self-drilling fasteners by Facade Supply [facadesupply.com](http://facadesupply.com) or equivalent.



# Panel Installation: Concealed Fasteners Z Clips with Adhesive

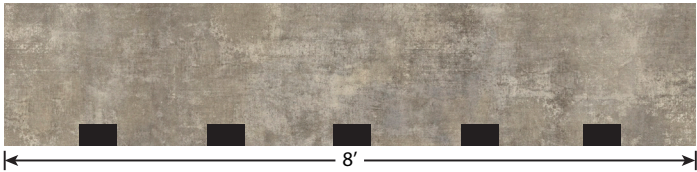
## CONCEALED FASTENERS Z CLIPS WITH ADHESIVE

Fibersin recommends using 3M™ Scotch-Weld™ Epoxy Adhesive DP110 Translucent or 3M™ Scotch-Weld™ Epoxy Adhesive DP420 Black or equivalent as the panel to clip adhesive.

- Apply adhesive according to manufacturer instructions.
- Ensure the use of five (5) clips in the 8' direction.

### Thickness

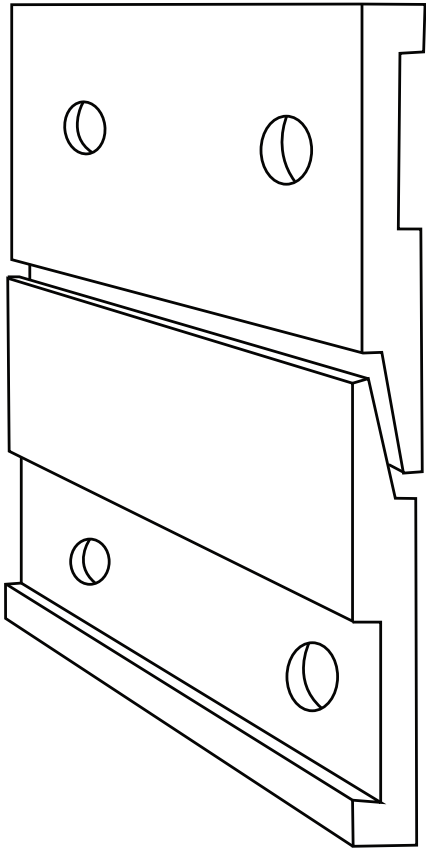
1/8"  
3/16"  
1/4"



Use five (5) clips in the 8' direction, for 4'x8' panel to ensure flatness

## MOUNTING TYPE AND SUBSTRATE OVERVIEW

Mounting Type	
Panel Thickness	Z-Clip with Adhesive
1/8"	X
3/16"	X
1/4"	X
5/16"	
3/8"	
1/2"	
Substrates	
Plywood	X
OSB	X
Plaster	X
Wall Stud	X



# Panel Installation: Concealed Fasteners Z Clips with Adhesive Tape

## CONCEALED FASTENERS: Z CLIP WITH ADHESIVE TAPE

Mounting Type	
Panel Thickness	Z-Clips with Adhesive Tape
1/8"	X
3/16"	X
1/4"	X
5/16"	X
3/8"	
1/2"	
Substrates	
Plywood	X
OSB	X
Plaster	X
Wall Stud	X

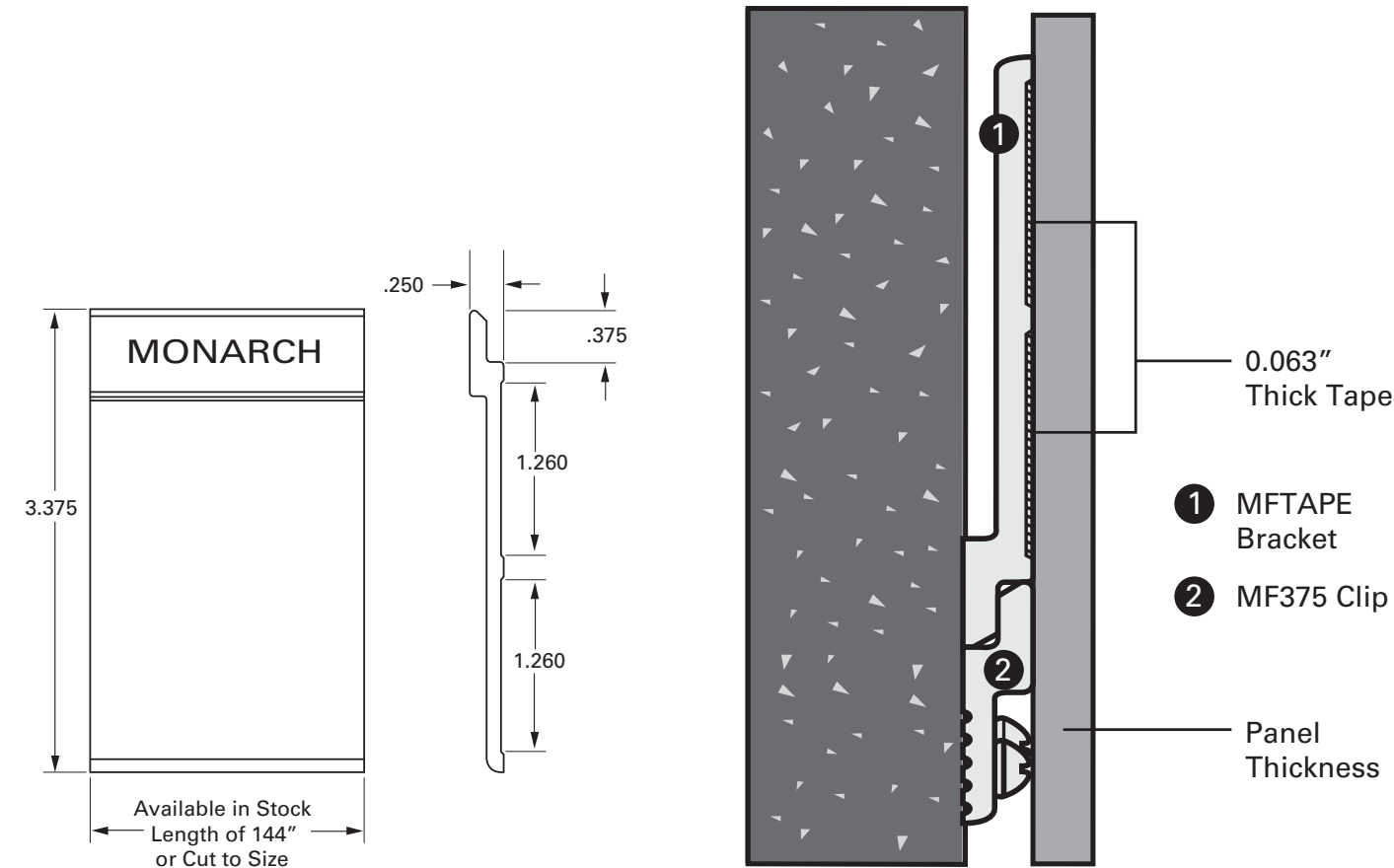
### Z CLIP WITH ADHESIVE TAPE BEST PRACTICES

- Use Z Clip with adhesive tape where phenolic panels cannot be attached with a screw
- Allow 1/2" clearance between the top of the panel and ceiling
- Each 1 ft of bracket is rated for 7.5 lbs of shear strength

Panel Size	Panel Weight	Panel Thickness	Amount of Bracket Required
4'x 8'	29 lbs.	1/8"	4ft of Tape Bracket
4'x 8'	43 lbs.	3/16"	6ft of Tape Bracket
4'x 8'	57 lbs.	1/4"	8ft of Tape Bracket

### Z CLIP WITH ADHESIVE TAPE SYSTEM RECOMMENDATION

Fibersin recommends the MFTape Bracket with MF375 Clip by Monarch Metal Fabrication or equal, visit [monarchmetal.com](http://monarchmetal.com) for more information.

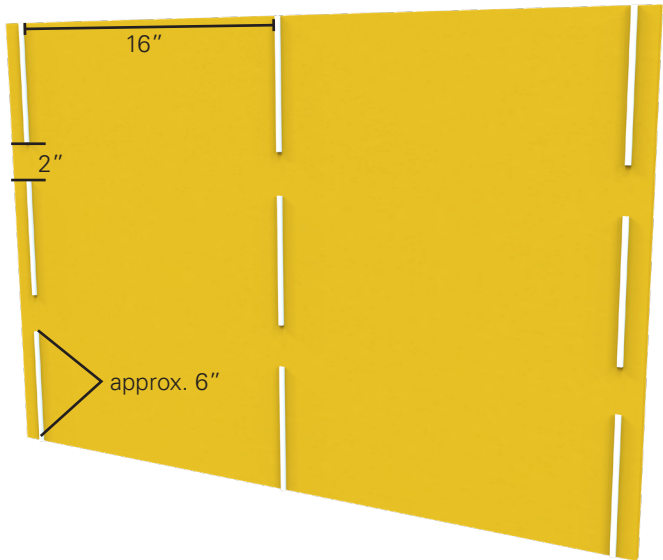


Technical drawings courtesy of Monarch Metal Fabrication.

# Panel Installation: Adhesive Only

## PANEL INSTALLATION ADHESIVE ONLY

- Stonewood Interior Panels can be directly glued to plywood or OSB substrates, with no wall stud. Surface must be an interior wall and completely dry.

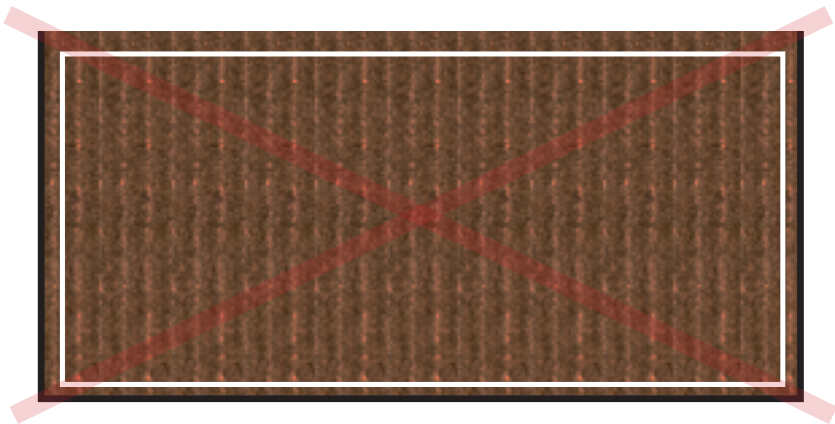


## MOUNTING TYPE AND SUBSTRATE OVERVIEW

Mounting Type	
Panel Thickness	Adhesive Only
1/8"	X
3/16"	X
1/4"	
5/16"	
3/8"	
1/2"	
Substrates	
Plywood	X
OSB	X
Plaster	
Wall Stud	

- Apply adhesive in vertical beads approx. 6" long x 1/4" diameter and maximum 16" apart, always reaching the edge of the panel.
- Apply pressure to panel against substrate within 20 min of adhesive application, ensure a "skin" does not form on the adhesive.
- Fibersin recommends Seal Bond SB 150 or equivalent.

Fibersin recommends Seal Bond SB 150 or equivalent.



**Do NOT** apply adhesive in a "frame" around all four (4) sides of the panel. This method prevents air circulation.





# Cleaning and Maintenance

## GENERAL CLEANING INSTRUCTIONS

When cleaning Stonewood Architectural Panels, use a progressive approach starting with the gentlest cleaning method. It is best to use the least amount of cleaning agents and do not scrub to remove debris.

Benchmark Recommendation: It is highly recommended to always test clean a small part of the affected area, and once the effectiveness of the procedure has been verified, proceed with the rest of the surface.

## CLEANING PROGRESSION OPTIONS

**Option 1** – Clean surface using hot water and a clean soft cloth (not dyed). Immediately dry panels using a lint-free absorbent cloth. Always use a wet or damp cloth, do not rub the panels when dry.

**Option 2** – Wash the surface with lukewarm water and dishwashing detergent. Use a clean, soft cloth, applying light pressure. Rinse with clean water.

**Option 3** – Grease, oil or tar may be removed with a good grade of hexane, aliphatic naphtha or kerosene. These solvents may be obtained at a paint or hardware store and should be used in accordance with manufacturer's recommendations. Any oily film left behind by solvents should be immediately removed by washing with warm, clean water.

## REPAIR

There is no approved method to repair panels. Damaged panels must be replaced. Contact your local representative or call Stonewood Customer Service 262-567-4427.



## Do NOT use any of these products to clean Stonewood Panels:

- Window cleaning sprays (Windex®, Glass Plus® etc.)
- Kitchen scouring compounds (Comet®, Bar Keepers Friend®)
- Acetone
- Ethyl
- Acetate
- MEK (Methyl Ethyl Ketone Solvent)
- Nail polish remover
- Gasoline
- Benzene
- Carbon Tetrachloride
- Lacquer Thinner

These cleaning agents will cause permanent damage to the panel. Do NOT use cloths or sponges with abrasive cleaning surfaces or additives as they will damage the surface of the panels.





STONEWOOD™  
ARCHITECTURAL PANELS

PROUDLY MADE IN AMERICA

FIBERESIN INDUSTRIES INC.

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PHONE: 262.567.4427 | [WWW.STONEWOODPANELS.COM](http://WWW.STONEWOODPANELS.COM)

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