Glasteel™

Installation Instructions and Guidelines for Glasliner FRP Panels

Read all instructions before installation. Glasliner FRP panels should only be installed over solid wall surfaces (standard drywall, standard plywood, standard OSB, cement board, cement, etc.) Consult your adhesive manufacturer for recommendations for non-standard substrates.

Inspection, Storage, and Preparation

Panels should be inspected in a well lit area promptly upon receipt to ensure material suitability. Do not store panels outdoors. Panels should only be stored in a dry area. Promptly unwrap and remove panels from skid and stack on a flat, dry surface. Ensure that the climate of the room, the panels, and the adhesive are all above 50°F before and during installation. Avoid large temperature changes for at least 24 hours after installation is complete. Normal fire-safety precautions should be taken during storage and installation of panels.

Panels are inspected for defects prior to shipment, and should be re-inspected by the installer prior to installation. If panels are not acceptable, contact Glasteel customer service prior to installation. Glasteel is not responsible for installation or removal costs of unacceptable panels.

Tools

Panels can be cut using power saws with a fine carbide tip blade or masonry blade. Panels may be drilled for fastening with a metal drill bit. Masonry bits are recommended when drilling in concrete.

Caution: Protect eyes with goggles and cover mouth with a filter mask when cutting Glasliner panels.

Use a trowel recommended by the adhesive manufacturer to apply adhesive to the back side of the panel.

A laminate roller is recommended to remove air pockets and ensure adhesion of the surface area.
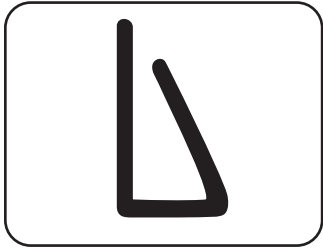
Adhesives & Fasteners

The use of a specifically formulated FRP adhesive is recommended when installing Glasliner FRP panels. Follow the adhesive manufacturer's instructions carefully. Many adhesives are flammable and some may not be compatible with paneling.
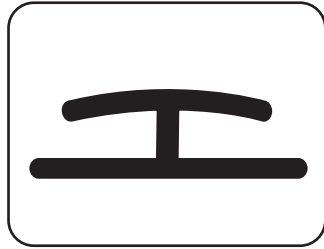
Glasliner FRP panels may be successfully installed using only adhesive on typical even surfaces. Installation over uneven surfaces using adhesive only may cause adhesion failure.

Mechanical fasteners may be used in certain non-typical applications. If mechanical fasteners are used, they should be non-corroding (i.e. plastic pin rivets, chrome pin rivets, one piece nylon rivets, and stainless screws, etc.). Follow the fastener manufacturer's instructions carefully.
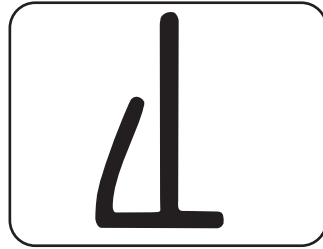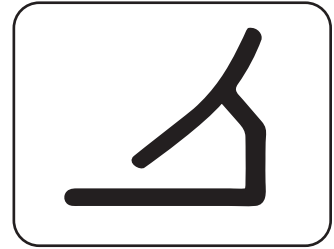
Moldings

Cap	Divider Bar	Outside Corner	Inside Corner

Preparation of Substrate

Ensure that the substrate is flat with even surfaces. High and low areas should be leveled prior to installation. Remove any foreign material or debris that could interfere with proper bonding of the adhesive. (Caution: *Installation over uneven surfaces could result in adhesive failure, resulting in de-lamination of the panel*.)

- **Non-Porous Surfaces:** Non-porous surfaces are not a favorable surface for adhesive to bond, as most adhesives will not dry properly. Consult adhesive manufacturer for specific recommendations. *Examples: Metal Panels, Ceramic Tiles, Glazed Block, other Moisture Resistant Substrates*

- **New Gypsum Board:** A finish coat is not recommended. Using a setting compound, joints need only a fill and taped coating.

- **Plywood:** Warped Plywood should be removed and replaced with plywood that is flat and even. Consult adhesive manufacturer on any installation over pressure treated or fire-rated plywood.

- **Concrete Block and Brick:** Concrete block and brick walls are typically uneven. It is recommended that furring strips be applied to the concrete block or brick walls and a suitable substrate be installed over the furring strips. Panels may then be installed to the substrate according to installation instructions. (An alternative to this are Glasteel's Laminated FRP Panels.) When panels are applied directly to concrete block or brick walls, it is recommended panel be installed with a mechanical fastener. Special care should be given to allow for panel expansion at fastener locations and panel joints, please refer to **FRP Panel Installation Steps** for pre-drilling and panel spacing instructions. *Consult adhesive manufacturer for recommended adhesive when installing directly to concrete block or brick walls*.

- **Painted Surfaces:** Painted surfaces must be abraded or gouged with a heavy grit sand paper to break the barrier of the paint. Painted surfaces will not allow most adhesives to dry properly. *All loose paint and debris must be removed prior to installation*.

Environmental Considerations

- **Service Temperature:** The service temperature range for Glasliner FRP is 0°F to 130°F.

- **Near a Heat Source:** Panels may discolor when installed in proximity to a heat source. Glasteel does not recommend that panels be installed near a heat source that radiates temperatures greater than 130°F (55°C). Examples of heat sources include cookers, ovens, and deep fryers. Stainless steel is recommended in these areas.
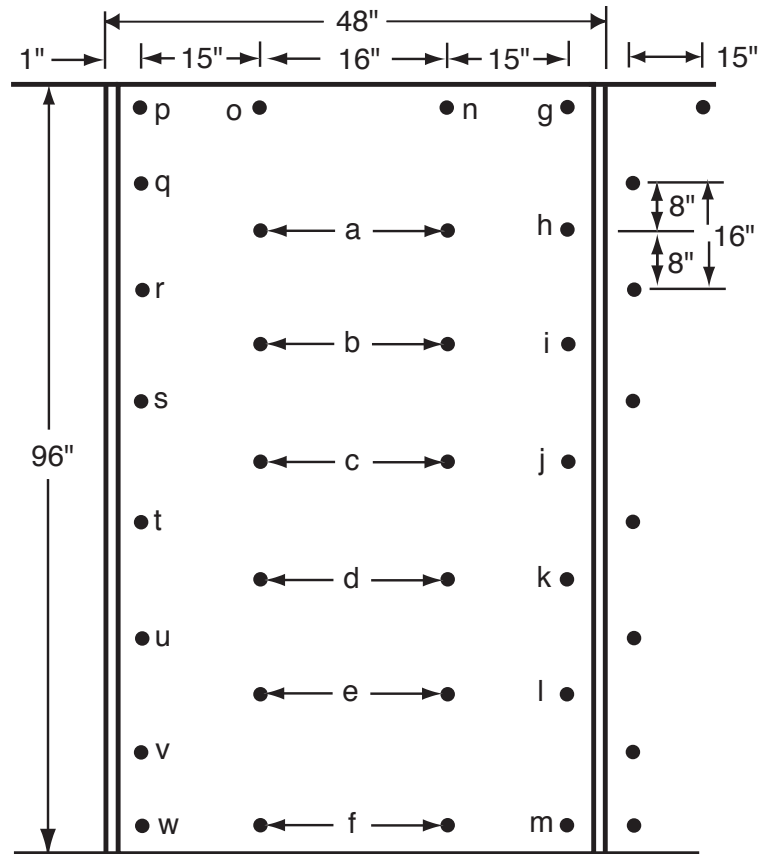
FRP Panel Installation Steps

Step 1: Trim panel to fit and create over-sized pilot holes.

Expansion Joint Recommendations	installation of panels over 12' long is not recommended			
PANEL SIZE	**4X8**	**4X9**	**4X10**	**4X12**
Space around rivets	1/8"	1/8"	3/16"	3/16"

If using a power saw, ensure that the blade enters the front (finished) side of the panel to avoid damage.

Using Fasteners

1. When using rivets, panels should be predrilled allowing for the spacing in the above chart. Holes slightly larger than the fasteners should be drilled into the substrate through the pre-drilled holes in the panel. Do this prior to adhesive application.

2. Apply a silicone sealant prior to inserting fasteners.

3. Fasten panel first in the center and work outward.
   Fasteners should be used 16" on center vertically and horizontally. Fasteners on panel edges should be at least 1" to 1 1/2" from the panel edge when using one piece fasteners. Using two piece moldings, put perimeter holes 1 1/2" to 2" away from the panel edge.

Note: Initiate installation by alphabetic sequence

Step 2: Cut out any fixture openings.

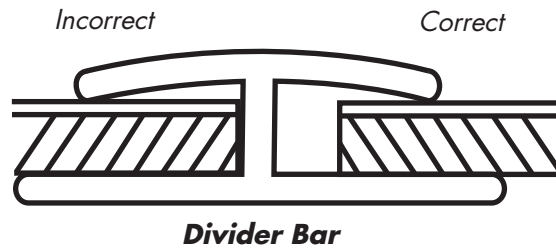| Expansion Joint Recommendations	installation of panels over 12' long is not recommended			
PANEL SIZE	**4X8**	**4X9**	**4X10**	**4X12**
Space between panels and wall fixtures	1/8"	1/8"	3/16"	3/16"

Step 3: Start at an inside corner of the room. Mark a plumb line 48" + expansion distance (see Step 5 chart) from the corner. The initial panel should be set true with plumb line.

Step 4: Apply FRP adhesive to the back side of the panel using the adhesive manufacturer's recommendations. *Failure to apply adhesive properly may cause de-lamination.*

Step 5: Place panel on the wall, leaving space and the joints for expansion and contraction.

Expansion Joint Recommendations		installation of panels over 12' long is not recommended		
PANEL SIZE	**4X8**	**4X9**	**4X10**	**4X12**
Gap at ceiling	1/4"	1/4"	3/8"	3/8"
Gap at floor	1/4"	1/4"	3/8"	3/8"
Gap between panel and center of 1 piece molding	1/8"	1/8"	3/16"	3/16"
Gap between panel and center of 2 piece molding	1/4"	1/4"	3/8"	3/8"
Gap between panel not using molding	1/4"	1/4"	3/8"	3/8"

Failure to allow adequate molding spacing may cause delamination

Incorrect   Correct

Divider Bar

Step 6: Use of silicone sealant is recommended to achieve a moisture resistant installation. Place silicone sealant into the channel of cut-to-size moldings. Fit coordinating moldings between the joints leaving the recommendations in step 4 to allow for expansion and contraction.
In high moisture and frequent wash-down areas, silicone should be used between moldings and floors/ceilings to prevent moisture from penetrating the back of the panel substrates.

Step 7: Use a laminate roller to remove air pockets. Work from the middle of the panel out to the leading edge.

Step 8: Repeat steps one through seven until project is complete.

Step 9: Clean excess adhesive residue from surface of panels following adhesive manufacturer's recommendations.

Cleaning Instructions
Glasliner FRP Panels are designed for minimum care and maintenance. When cleaning panels, wash with light detergent such as Spic & Span, Pine Sol, Mr. Clean, etc. Panels may also be cleaned with steam, high pressure sprayers, or soap and water. It is strongly recommended not to use abrasive cleaners on panels (i.e., SOS Pads, Ajax, Comet, etc.). Following these instructions, Glasliner FRP Panels will give a fine and lasting appearance for many years.

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