TRANSLUCENT
PANELS

INSTALLATION INSTRUCTIONS

ATTENTION: Translucent panels must be acclimatized for 24 hours prior to installation.

IMPORTANT: READ INSTRUCTIONS COMPLETELY PRIOR TO INSTALLATION.

Please inspect translucent panels for any imperfections prior to installing. Once installed, panels may be very difficult to remove.

STORAGE

The translucent panels should be stored in a cool, well-ventilated, dry area on the original shipping pallet. Do not place the panels on a concrete floor or any other surface that emits moisture. The panels should be laid flat, not on an edge. The panels should be climatized in the area they will be installed for a minimum of 24-48 hours.

TOOLS REQUIRED

In order to cut the translucent panels most effectively, a fine-tooth saw blade is recommended. Swivel-head shears may be utilized for small cutouts or trims. For pre-drilled fastener holes, a diamond-coated or carbide drill bit is recommended. If the installation requires adhesive, it is recommended to utilize the trowel with the notch pattern suggested by the adhesive manufacturer, since, the trowel used to apply the adhesive can have a great effect on the success or failure of the installation.

PANEL TRIMMING

If not using trim strips, it is recommended that the edges be properly trimmed with router. This will mitigate showing "white lines" from the factory edges of the panel. A commercial high-speed router using a Bosch 3/8" Laminate Trim Bit with ball bearing, carbide tip, and roller tip (when appropriate) is recommended.
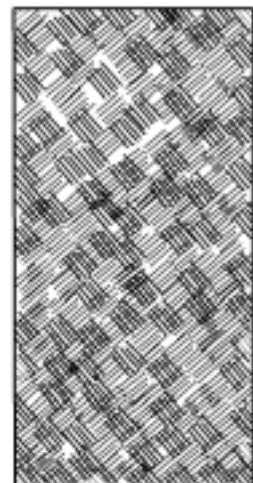
MATERIALS REQUIRED

- Translucent Panels
- FRP formulated adhesive
- PVC mouldings
- Silicone sealant
- Soap, water and a damp cloth for panel clean-up
- Mineral spirits to remove excess adhesive or silicone sealant

ADHESIVE

For applications requiring adhesive, suggestions include *Weldwood® non-flammable, water-based contact cement* (applied by spray, brush, or roller), or *Titebond® Advanced Polymer Panel Adhesive* (applied with a notched trowel). *Titebond® Panel Adhesive* should be applied in a crosshatch pattern, enabling distribution of substrate **(See figure to the right)**. For best results, *Titebond® Panel Adhesive* should be stored above 50°F.

Due to the abrasive nature of the adhesive, it is highly recommended that those working with the adhesive wear protective safety equipment which include, but not limited to the following: safety glasses, gloves, and a filter mask.

Trowel Application

FASTENERS

Nylon drive rivets, or corrosion resistant screws are appropriate fastener options. If fasteners will be used in the installation, the panels should be pre-drilled using a drill bit that is 1/8'' - 1/4'' larger than the fastener. During installation, holes drilled into the substrate should also be made 1/8'' - 1/4'' larger. This is required to allow room for expansion and contraction of the panels.
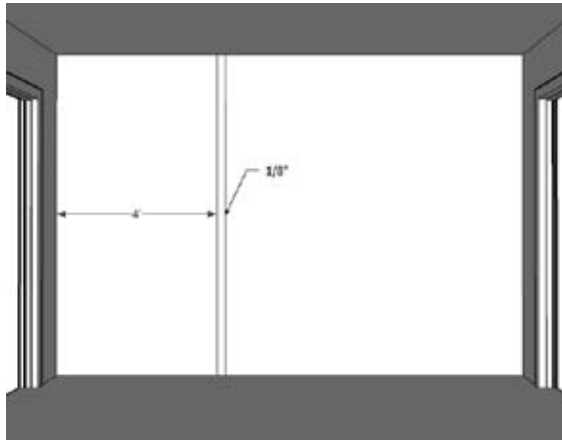
EXPANSION JOINTS

As temperature and humidity levels fluctuate, translucent panels will expand and contract. Therefore, adequate space must be allowed around panel edges, holes drilled in panels, and around fixtures attached to the panel/wall. Please refer to the expansion joint chart below for spacing at the ceiling, floor and between panels.

EXPANSION JOINT CHART

PANEL SIZE	4 x 8	4 x !0
Gap at ceiling	1/4''	3/8''
Gap at floor	1/4''	3/8''
Gap between panel and center of one piece moulding	1/8''	3/16''
Gap between panel and center of two piece moulding	1/4''	3/8''
Gap between panel without moulding	1/4''	3/8''
Gap around rivets	1/8''	3/16''
Gap between panels and wall fixtures	1/8''	1/4''

EXPANSION JOINT LAYOUT

INSTALLATION

NOTE: For the best results, translucent panels should be used in conditions which result in temperatures that are less than or exceed the allowable temperature ranges in the chart below.

ALLOWABLE TEMPERATURE RANGES CHART

		TEMPERATURE (°F)	
MATERIAL	LENGTH	LOW	HIGH
FRP	48''	27	117
	96''	50	94

Do not use in areas exposed to temperatures exceeding 200°F for extended periods of time, or to intense or continuous direct sunlight.

STEP ONE - PLANNING AND CUTTING
- Fit each panel in advance before fastening and/or adhering in place.
- Perform all cutting and drilling prior to adhesive application.
  If your are not using trim strips, it is recommended that the edges be properly trimmed with a router. This will mitigate showing "white lines" from the factory edges of the panel. A commercial high speed router using a Bosch 3/8" Laminate Trim Bit with ball bearing, carbide tip, and roller tip (when appropriate) is recommended.
- Verify that the substrates surface has no bumps or uneven areas.
- Pre-drill rivet holes using a bit is 1/8" - 1/4" larger than rivet allowing for panel expansion according to the sizes in the chart on the previous page.
- Plan ahead for cove and base moulding. Base moulding should be installed in such a manner as not to restrict the translucent panel's normal movement. Cut the panels 1/4" short where the base moulding will extend; poured moulding should be in place prior to installation.
- Mark a plumb line 48-1/8" from the corner. In areas where several courses of panels are used, such as on a high wall, use vertical and horizontal lines to assure alignment.

STEP TWO - INSTALLING ON A WALL
- Install one piece of corner moulding and apply a silicone sealant in the moulding groove.
- If using rivets, drill holes into the substrate through the pre-drilled holes in the panel.
- If using *Titebond® Advanced Polymer Panel Adhesive*, apply the adhesive to the panel using the adhesive manufacturer's recommended notched trowel to ensure good adhesion.
- If using *Weldwood® non-flammable, water-based contact cement,* apply to both surfaces according to the manufacturer's recommendations.
- Set the first panel true to the plumb line.
- If using adhesive, firmly roll over the panel using a laminate roller, starting at the top corner nearest the moulding rolling down and away toward the opposite edge, eliminating any air pockets.
- If using fasteners, install the fasteners as each panel is put into place and before the next division bar or moulding strap is applied. Begin fastening at the top edge and work towards the opposite end. Apply silicone sealant prior to inserting the rivets or fasteners. Install the fasteners one row at a time.
- Install on-piece division bar and caps or the next moulding piece by laying down a bead of silicone in the moulding groove and sliding completely onto the panel. Withdraw the moulding or division bar 1/8" to provide proper spacing. The free edge of the moulding or division bar may be tacked in place, if preferred, before installing the next panel.
- If using *Titebond® Advanced Polymer Panel Adhesive* and fasteners are not used, a few nails may be placed at the top (above the ceiling grid line) to help hold the panels in place while the adhesive cures. Once cured, the nails must removed, as they do not allow for normal panel expansion and contraction.
- Repeat the process, working in one direction around the room.

STEP THREE - COMPLETING PANEL INSTALLATION
- Be sure to apply silicone sealant in all moulding and around all the panel edges, fasteners, and fixtures to prevent moisture from penetrating behind panels.
- Remove any residue left by the adhesives as recommended by the manufacturer.
- Clean the panels thoroughly prior to leaving the jobsite.

Please inspect each sheet carefully before fabrication to ensure it meets your needs.

OUTWATER INDUSTRIES, INC.