# Symmetrix™ FRP Panels

## Installation Instructions

Statements expressed in this technical bulletin are recommendations for the application of Marlite® brand products as outlined and illustrated under normal conditions of installation. The recommendations provided in the bulletin represent our best judgment based on our experience with normal applications. Unless prior approval is obtained in writing from Marlite®, any deviation from these recommended procedures shall be at the sole risk of the installers.

## Symmetrix™ Wall Panels System Components

- Symmetrix™ FRP Wall Panels
- PVC Trim Molding
- Adhesives & Sealants
  - Marlite® C-551 FRP Adhesive (for porous sub wall such as unfinished drywall)
  - Advanced Polymer Adhesive (for non-porous sub wall such as tile)
  - Marlite® C-109 Cartridge Adhesive (for "finger-locked" SmartSeam installations)
  - Marlite® Silicone Sealant (for higher moisture areas)

## Required Tools

Table saw or circular saw with fine-tooth blade, caulking gun, tape measure, drill, file, hammer, 2" painters tape, jig saw (for cutouts around fittings), mineral spirits, notched adhesive trowel, plumb line/level and horses/supports.
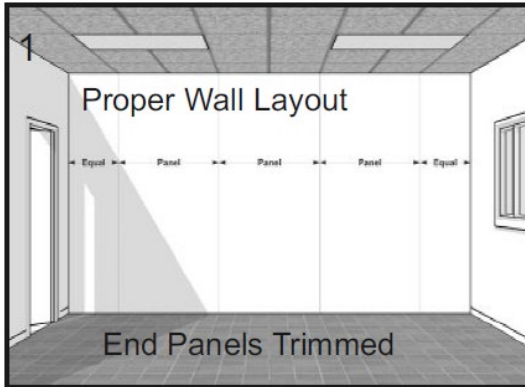
## Storage

Do not store Symmetrix™ FRP Panels or adhesives outside and exposed to the weather and its elements. Damage may occur. Panel expansion / contraction issues may occur when cold panels and adhesives are moved to warmer areas for installation.

## Preparation and Important Tips

1. Carefully inspect all Symmetrix™ FRP Panels prior to installation. If a panel is defective, notify immediately the Marlite® Service Center or Distributor nearest you. Failure to do so shall be at the sole risk of the installer.
2. After un-banding, allow panels (positioned flat on the ground) and adhesives to properly acclimate to the room environment prior to installation for at least 24 hours.
3. Begin installation when the room, panels and adhesive are all approximately 70◦ F.
4. Application is required over a solid backing, such as drywall or plywood. Surface to be covered must be clean, dry, solid, straight and free from drywall dust, bumps, projections, loose plaster, loose paint or any unsealed joint compound wider than 3". For seams in excess of 3", apply drywall primer.
5. Maintain plumb vertical edges.
6. Do not position panel joints directly over drywall or plywood joints.
7. Cut FRP Panels face up using a table saw and face down using a circular saw.
8. Use C-551 FRP Adhesive only on porous surfaces such as unfinished, untreated drywall or plywood. For non-porous surfaces such as finished drywall, ceramic tile or old FRP Panels, use Titebond® Advanced Polymer Adhesive.
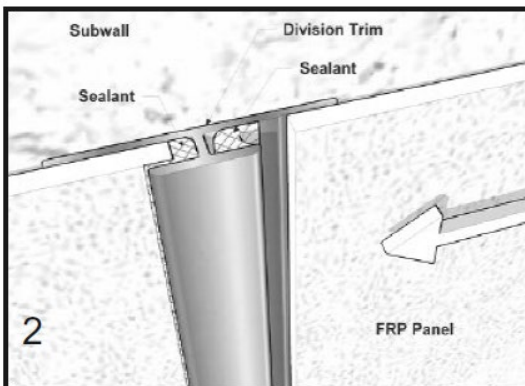
9.  Symmetrix™ FRP Panels are grooved.  Proper orientation is required to ensure groove alignment.
10. At the top of panels, at corners and around utility cut-outs, leave a 1/16" space in all channels to accommodate panel expansion and contraction.
11. Be sure to apply panel roller over the entire panel face after each panel is installed to ensure a good bond.

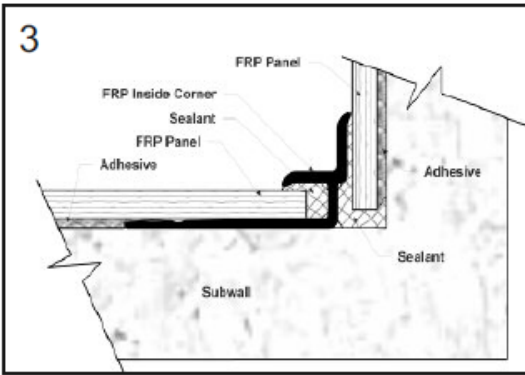## Room Lay-out and PVC Trim Molding Installation



For a balanced appearance, establish a center line of area to be covered and work toward corners.  (see illustration 1)
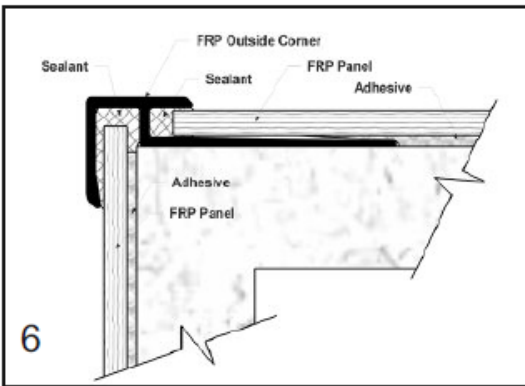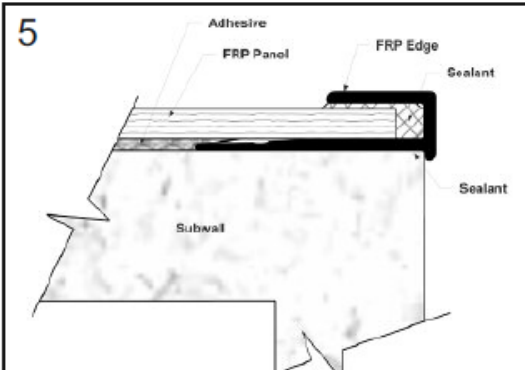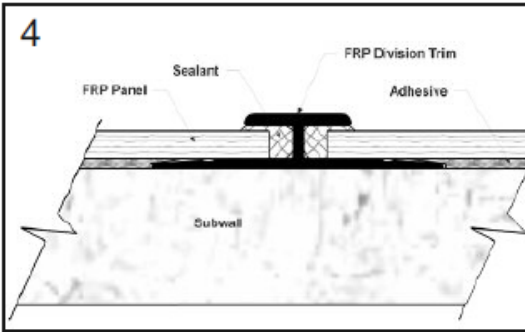
PVC Trim Molding must be applied using pin tacks or staples attached to flange and adhesive.  Do not pin tack or staple through Symmetrix™ FRP Panels.



Do not fit panels too tightly into Trim Molding.  Allow a 1/16" space in all channels for panel expansion after installation is completed.
(see illustration 2)

**3**

FRP Panel
FRP Inside Corner
Sealant
FRP Panel
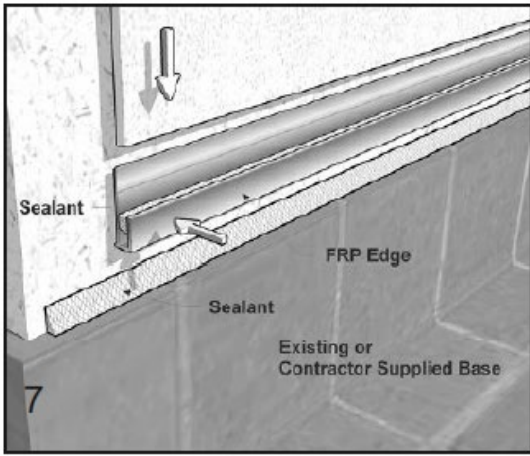Adhesive
Adhesive
Sealant
Subwall

In areas of higher moisture conditions, PVC Trim Molding and FRP Panels must be sealed with Marlite brand Silicone Sealant to ensure a watertight seal.
(see illustrations 3 – 6)

**4**

Sealant
FRP Division Trim
FRP Panel
Adhesive
Subwall

**5**

Adhesive
FRP Panel
FRP Edge
Sealant
Sealant
Subwall

**6**

FRP Outside Corner
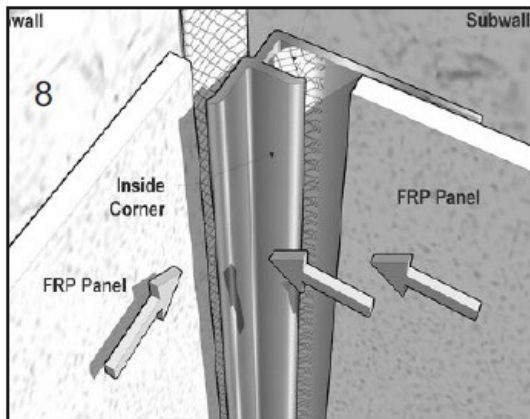Sealant
FRP Panel
Sealant
Adhesive
Adhesive
FRP Panel

Silicone Sealant is best applied to PVC Trim Molding prior to application to the wall.  It is important that a continuous, non-broken bead of sealant is applied.  Excess sealant "squeeze-out" should be promptly cleaned off with mineral spirits.  It is suggested that a sealant be applied to all exposed edges of molding, electric plates and other covers after installation.  Allow 24 hours drying time for sealant.

**Application at Tile Curb, Floor, Base Molding and Ceiling Line**

Curb must be installed first. Apply a continuous bead of silicone sealant to the top of curb or floor line and in the PVC Trim Molding channel. Set Edge Trim Molding in place and fasten to the sub wall. Slip FRP Panel into Edge Trim Molding. Allow for 1/8" expansion space and sealant "squeeze-out". Execute similar application at ceiling line.
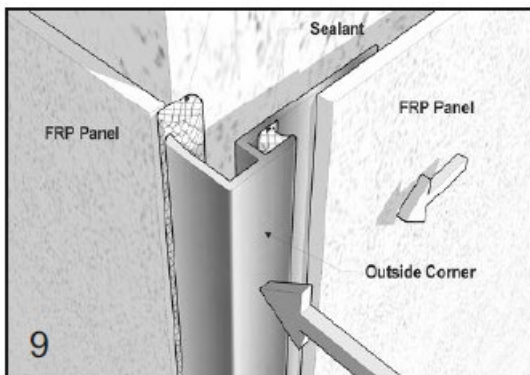(see illustration 7)

## Application at Inside Corners



Apply a continuous bead of silicone sealant in the corner and in the Inside Corner PVC Trim Molding channel. Secure Inside Corner PVC Trim Molding to cover bead.
(see illustration 8)

*Use this method in high moisture areas.*

## Application at Outside Corners



First, cut the FRP Panel on the preceding wall flush to the outside corner and install. Apply a continuous bead of silicone sealant to both Outside Corner PVC Trim Molding channels. Secure into place and slip in the next FRP Panel.
(see illustration 9)

M961 Outside Corner Guards and F560SS snap on Stainless Steel Corner Guards are also available for areas requiring greater durability.
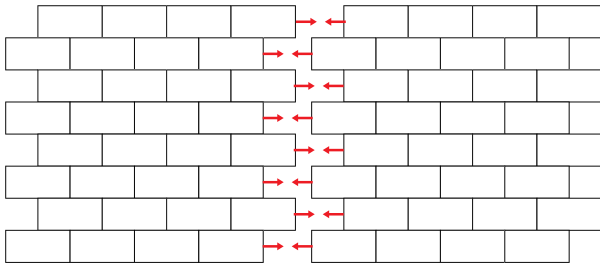
## Application at Panel Joint

Three Symmetrix™ FRP Panel joint options exist – SmartSeam (special SmartSeam Panels required), Silicone Sealant Seam Joint and PVC Trim Molding Division.

## Option One – SmartSeam

***Marlite's patent pending SmartSeam technology, allows for Symmetrix™ FRP Panels to be butted together without the need for Division PVC Trim Molding or any other joint treatment.***
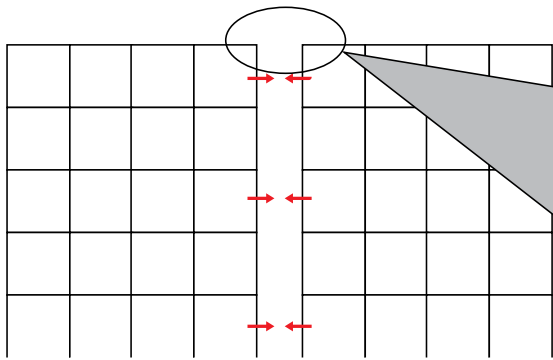
Symmetrix™ FRP Panels with SmartSeam edges, depicted below, are required to select this option.  Special adhesive application techniques are illustrated in the Adhesive Application section.
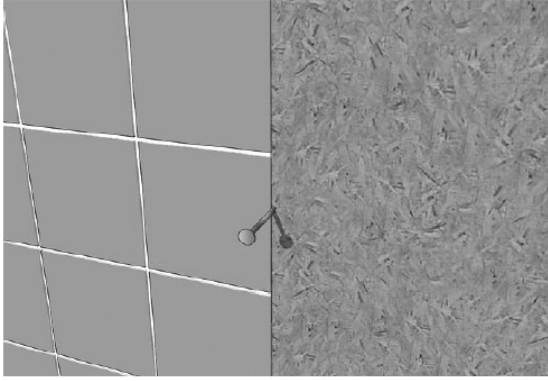
## Fingerlock Panels

Join panels flush together. No need for a Seam Joint.

## Straight Edge with Half Groove
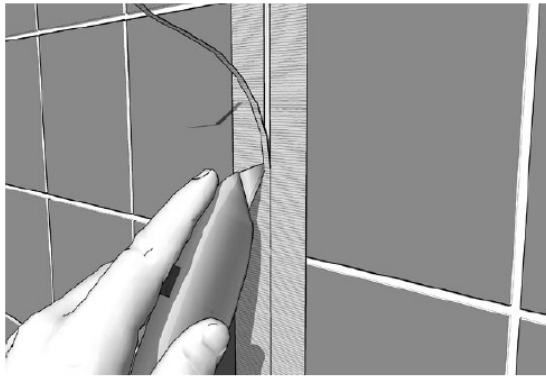
Half groove on edge of panel (top view)

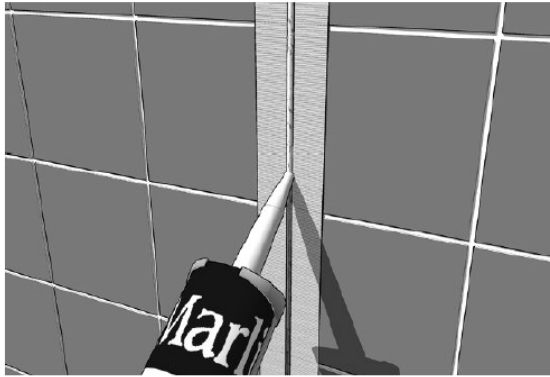Join panels flush together. No need for a Seam Joint.
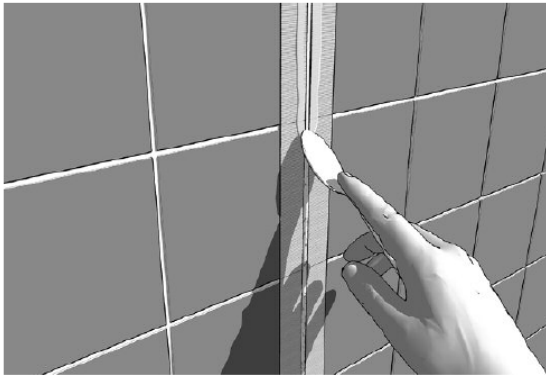
## Option Two – Silicone Sealant Seam Joint



Use a 6-penny nail for Symmetrix™ FRP Panel spacing.  Dry fit before applying adhesive to ensure groove alignment.  If grooves fail to align, flip panel top to bottom.



After adhesive sets, removed nails and apply a 2" or wider strip of masking tape over the joint.  Trim out groove with a sharp utility knife using the panel edges as guides.
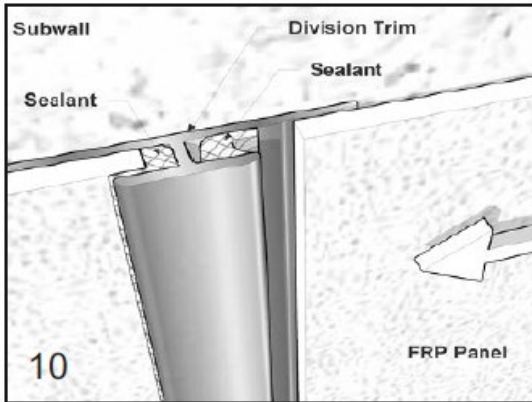


Apply a bead of Marlite MS-251 White Silicone Sealant or other harmonizing color.



Finish the joint with caulk finishing tool. Immediately remove tape and clean up excess silicone sealant.
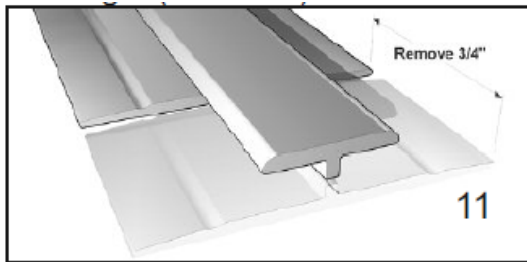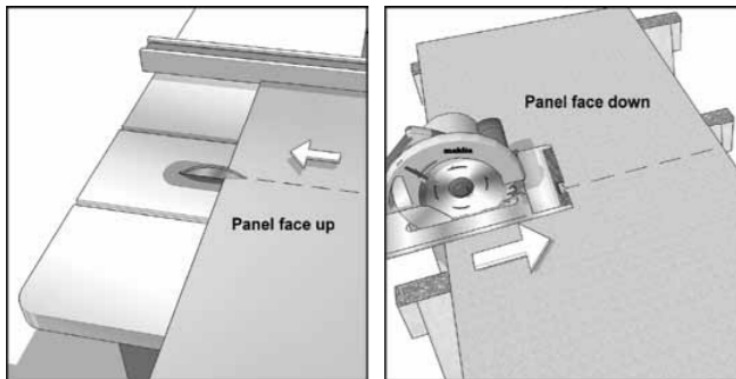
## Option Three – PVC Trim Molding Division



Apply a continuous bead of silicone sealant to both Division Trim Molding channels. Slip under preceding FRP Panel and secure to sub wall. Then, continue with the next FRP Panel. (see illustration 10)

Use pin tacks or staples and adhesive on Division Trim Molding flanges. Ensure an 1/16" expansion space between the FRP Panel and Division Trim Molding center strip.



Flanges and posts of Division Trim Molding must be cut away ¾" if it butts to already applied Trim Molding. (see illustration 11)

# Cutting Symmetrix™ FRP Panels



Cut Symmetrix™ FRP Panels face up with a table saw or face down with a circular saw using a fine-tooth blade. For cutouts, drill four holes and radius all corner cuts to avoid chipping.

Rough-cut Symmetrix™ FRP Panel edges can be smoothed with sandpaper or a file.

# Application of Adhesive

Always apply Marlite® C-551 FRP Adhesive or Advanced Polymer Adhesive to the FRP Panel back.  Be sure the existing sub wall is porous, straight, clean, and dry.  Apply over plywood or drywall that is void of excessive joint compound.  Walls with excessive joint compound wider than 3" should be sealed prior to installation.

Use Marlite® C-551 FRP Adhesive over porous sub walls such as unfinished / untreated drywall or plywood. **For any non-porous surface such as painted drywall, ceramic tile or existing FRP Panels, Advanced Polymer Adhesive is required.  For Symmetrix™ FRP SmartSeam Panels with "finger-locked" edges, Marlite® C-109 Cartridge Adhesive is required.  Perform a trial to ensure acceptable adhesion and performance.**

Adhesive is easiest to spread at approximately 70∘F.  Symmetrix™ FRP Panels must be installed while the adhesive is fresh, within 5 minutes of application.  Adhesive on the panel face should be removed promptly using **mineral spirits**.  Adhesive coverage is 210 square feet per 3.5 gallon can.

Apply adhesive to the entire back of the FRP Panel using a notched spreader or trowel.  **Trowel size is 3/16" wide x ¼" deep x ½" c-c notch.**

100% coverage over the entire Symmetrix™ FRP Panel back is required except approximately 1" at edges. Use the notches in the spreader to achieve the exact depth of adhesive.  The spreader end must be kept at 90∘ to the panel surface.  Avoid too heavy a coat.  To assure proper ridges when spreading adhesive, keep notches of the spreader clean *(see figure 1-A)*. **For Fingerlock panels** use cartridge adhesive to create a "swirl" pattern on the end tabs. Do not use trowel on fingerlock tabs. (see figure 1-B)

**Once panel is adhered to wall, apply pressure by rolling** *(see figure 1-c)*.  Be sure of 100% adhesive transfer.



1-A

Marlite adhesive spreader

Marlite's recommended adhesive

100% coverage to about 1" from edges

Marlite panel

Figure 1-A

Right

Wrong
Too much adhesive



Figure 1-B



Figure 1-C