Revision 3 Effective Date: 4/18/16



MirroFlex™ Structures Fabrication and Installation Instructions

MirroFlex™ Structures are deeply textured laminates used for wall panels and ceiling tiles. They have high impact resistance, and are available in a wide variety of patterns and finishes.

General

Sizes - 4' \times 8' \times .030" (1220 \times 2440 \times .75 mm). 4' \times 10' \times .030" (1220 \times 3048 \times .75 mm). MirroFlex Structures are also available as 2' \times 2' and 2' \times 4' Lay-in (grid) ceilings tiles; 2' \times 2' and 2' \times 4' Glueup tiles; 18" \times 24" Backsplash tiles; and 30"-32" \times 48" Wainscot tiles.

Most MirroFlex™ Structures ship with clear protective film or with TuffCote™.

Storing

Store flat and acclimatize in the same environment for at least 24 hours before fabrication.

Cutting/Fabricating

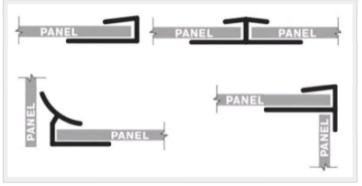
MirroFlex™ Structures can easily be cut to size with razor knife and scissors, saw blades, and drilling tools for thermoplastics. When fabricating MirroFlex™, always cut from the decorated side, through the finish. Never cut from the back. If routing, always use a down spiral bit.

Cleaning and Care

Clean only with warm soapy water or a typical window cleaner. Never use abrasive cleaners.

Molding

Molding is available to join and finish Structures sheets. Inside corners, outside corners, edge trim and universal trim strips are shown below. These trims are available in most finishes - please inquire for availability.



Trims available in 4' or 8' lengths.

GridMax™

GridMax is a patented ceiling grid cover system that fits all 15/16 suspension grid systems. GridMax 4 ft Mains, 2 & 4 ft Tees and 4 ft Wall Covers are available in most MirroFlex Structures finishes. Please inquire for availability.

BOXES containing enough GridMax covers to do 100 sqft ceilings are available in most Structures finishes and is the preferred method of our inventory.

Painting Guide

If a custom color is desired, choose our standard MirroFlex Gloss White Paintable or EccoFlex Tan Paintable finish, or inquire about our custom color matching program. Use recommended paints in accordance with manufacturer's recommendations. Due to the high chemical resistance of it, only certain paints adhere well. It is very important to use recommended paints to paint MirroFlex Gloss White Paintable and EccoFlex Tan Paintable sheets.

The following paints have been tested and are recommended:

MirroFlex Paintable Painting Guide				
Vendor	Product	Prep 1	Prep 2	
Sherwin				
Williams	Acrolon 218HS	SSPC-SP1 Solvent Cleaner	DTM Bonding Primer	
Lowes	Signature Interior or American Tradition Exterior Duramax Paints	TSP Cleaner	Plastic Primer Spray	
Benjamin Moore	Benjamin Moore Latex or Oil Paint	TSP Cleaner	Fresh Start Primer	
Pratt & Lambert	Pratt&Lambert Latex Paint	Scuff Sanding/TSP Cleaner	Supreme Interior/ Exterior Multi Purpose Primer	

EccoFlex Paintable Painting Guide				
Vendor	Product	Prep 1	Type	
Sherwin Williams	SuperPaint® or Duration™ or similar	Wiping the sheet with Isopropyl Alcohol (IPA) will help promote paint adhesion. To prepare the surface: EccoFlex sheet surface can be wiped using IPA or rubbing alcohol prior to painting. This method of treatment helps paint attack the surface and create a strong bond to the EccoFlex sheet.	Brush application	
Sherwin Williams	Polane™ Series* or Similar		Spray application	
Cardinal	Polyurethane 6400 Series		Spray application	

^{*} For external applications using Sherwin-Williams Polane Series, use exterior catalyst V66V27. The ratio is 6 parts paint, one part catalyst.

<u>CAUTION</u>: All MirroFlex sheets being applied to surfaces with any recommended adhesive systems must be acclimatized.

- A. All components to be joined must be acclimatized for 24 hours prior to installation.
- B. Installation between 65° F and 80° F and humidity of 80% or less is necessary.
- C. For every 4-foot wide sheet an expansion space of 1/32" (8-foot sheet = 1/16") is necessary.

Failure to comply with the above in addition to adhesive manufacturers' installation instructions may result in significant installation problems.

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Lamination

Like HPL, Structures sheets can be bonded with contact adhesive, but you must use a product compatible with PVC and the surface you are adhering to. We recommend water-based contact adhesive.

Adhesives

Trowel on latex adhesives are recommended for adhering MirroFlex sheets to a wall. Brush-on or roller-on types, non-flammable, and water based contact adhesives which are suitable for PVC, can also work well.

The following is meant as a guideline for adhesives that have been tested, and work well with MirroFlex product:

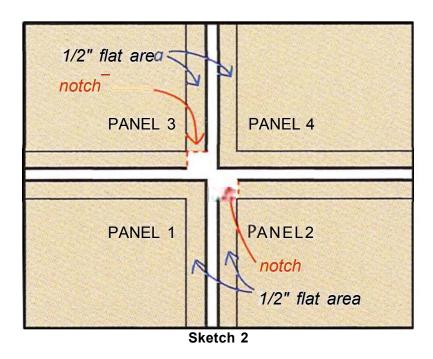
Titebond® Fast Grab FRP Loctite® PL Premium Loctite® PL Premium Fast Grab DAP® Weldwood FRP 3M™ 77 (spray on aerosol)

Cold Press Adhesives - MirroFlex Structure sheets may be laminated in a cold press using Wilsonart® 3310 adhesive or similar. Pressure must be adjusted to the lowest amount that will produce an acceptable bond so that formed pattern will not be damaged. Pressure needed will vary with each structure pattern.

<u>Installations</u>

Glue-Up Ceiling Tiles

- 1. Before starting the installation, surface must be dry, smooth and free from dust, grease, wax, and other particles*.
- 2. Measure the area to be covered to determine how many tiles you will need. Draw a plan to visualize how the edges and corners will work. When drawing your plan, it is best to center MirroFlex panels on the ceiling leaving equal margins on opposite sides of the room.
- 3. Now transfer the plan to the ceiling snapping chalk lines to help you keep the tiles aligned.
- 4. MirroFlex ceiling tiles should be installed from left to right, starting at the farthest point away from the room entrance. When overlapping 4 MirroFlex panels, it is necessary to cut a !4" notch in panel numbers 2 and 3 to avoid an overlap buildup that causes a "bump" (see sketch 2).



- 5. Carefully apply the adhesive to the ceiling (or wall for 2' x 2' wall applications) and lay up your first tile applying pressure as you hold it. (If installing a tile with protective masking, you can remove it at this step of the installation. Make sure the tile is straight before you continue with the next one.
- 6. Repeat this process, working left to right (and removing the protective masking after installing each panel, if applicable). When finished, use a paint roller on an extension pole to apply additional pressure to the ceiling. Filler strips can be installed around the perimeter of the room if desired.
- 7. Depending on what type of adhesive is being used, bracing or temporary supports may be required while the adhesive cures.

Lay-In Ceiling Tiles

- 1. Count how many tiles you will need for the installation. For panels that need to be trimmed, use the mineral tile as a template and using your marker and utility knife (razor, scissors, etc.) score the MirroFlex tile to size and then snap the pieces apart.
- Install the Grid Max covers to the t-bar suspension grid to allow for a seamless look on your ceiling. Be sure to install all the 4 foot Main covers first and then install the 2 foot or 4 foot Tee covers. The Main covers already come with sections notched out where the Tee grid crosses under it.
- 3. After all the covers are in place, begin to install all the panels into the suspension grid.
- 4. If making room for a ceiling lamp, be sure to cut out an opening on the tile where the lamp will be attached.

^{*} The method you choose for cleaning prior to application must be compatible with the surface you are cleaning (e.g. denatured alcohol, degreaser, soap & water, TSP, Greased Lightning, etc.). Check the manufacturer's label directions for instructions on using the product.

Backsplashes

- 1. Before starting the installation, surface must be dry, smooth and free from dust, grease, wax, and other particles*.
- 2. Measure the area to be covered horizontally to determine how many tiles and how many adhesive rolls you will need across (if using adhesive strips) and then measure the height of your backsplash to determine if any trimming is necessary.
- 3. Apply desired method of adhesive, according to manufacturer's instructions.
- 4. Starting at the left side of your backsplash, place tiles with some pressure to ensure a strong hold. (Be sure to remove protective masking if your tiles came with one). As you work from left to right you want to make sure that the flat edge is always on the right.
- 5. Make sure to apply a bit of your selected adhesive over the flat edge and the wall between tiles for extra hold.
- 6. Carefully apply your second tile making sure to line them up correctly and apply pressure to the tile for a strong bond.
- 7. Continue this process until you reach the last tile. Depending on the size of your backsplash, you may need to cut the last tile to fit. If so, measure the area and the tile and then use your straight edge and marker to mark the cut line. Using your scissors or utility knife, cut firmly on the decorative side of the tile and snap the pieces apart—note: if your tiles came with protective masking you must cut from the backside.
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4' x 8' Wall Panels

- 1. Before starting the installation, surface must be dry, smooth and free from dust, grease, wax, and other particles*.
- 2. Measure the area to be covered to determine how many panels you will need.
- 3. Most trowel on FRP adhesives will have to be applied to the wall, and not to the back of the panels, according to the manufacturer's instructions. After applying your selected adhesive to the wall, lay up your first panel applying pressure as you hold it (if your panel came with protective masking, gently remove it now). Make sure the panel is straight before you continue with the next one.
- 4. Repeat this process, working left to right (removing the protective masking after installing each panel, if your panel came with masking). When finished, use the paint roller on an extension pole to apply additional pressure to the wall.

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Outlet Covers

1. Some outlet covers (simple, inexpensive) can be covered with matching covers. To do this, peel the backing off of the outlet cover piece and lay flat, placing the sticky side up. Place the outlet cover centered and face down on the adhesive sheet. Using a utility knife, cut a square away from each corner. Fold the edge of the adhesive sheet over the outlet cover to create a seamless finish. Turn the cover over, and use a utility knife to carefully cut away the outlet openings.

Installation Videos

MirroFlex Structures Installation Videos can be found on our website at www.atilaminates.com/resources/video

Conditions & Warranty

ATI Decorative Laminates warrants to the original consumer purchaser for one (1) year after date of purchase that, under normal use and service, MirroFlex products are free from manufacturing defects and conform to published specifications. MirroFlex products are intended for primarily interior applications.

ATI Decorative Laminates believes all information contained herein to be correct. It is the responsibility of the fabricator/customer to completely test the adhesives and methods of fabrication to ensure that the results are satisfactory.

The seller's only obligation will be to replace product on a one-to-one basis. Neither the manufacturer nor the seller shall be liable for any additional damage or loss, directly or indirectly, arising as a result of using its products.

Slight imperfections and color variations can occur and are considered normal. Please inspect each product carefully before fabrication to ensure it meets your needs. ATI is not responsible for any fabrication or ancillary costs involved with using its products.

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