



Technical Information

GENERAL INFORMATION

MirroFlex panels are decorative 3-D thermoplastic sheets with high impact resistance and are available in a wide variety of patterns and colours.

Sizes – 4'x8' x .032" (1220 x 2440 x.8mm) – wall application only
2'x2' (610 x 610mm) – wall and ceiling application
2'x4' (610 x 1220mm) – ceiling application

Most products ship with clear protective film or with TuffCote™
Slight imperfections and colour variations from sheet to sheet are possible and considered normal.

TECHNICAL PROPERTIES

Property	Test Method	Typical Value
Fire Rating*	ASTM E-84	Class A
Humidity		12 hrs 96-100 RH @ 40°C on MDF
Impact Resistance	ASTM D5420	>2 inch lbs per mm of thickness
Abrasion Resistance- Patina with TuffCote Argent Finishes	ASTM D1044 Taber Abrader 5130 500 gm weight CS-10 Calibres' wheel	4,700* 5,000* *no sign of wear

***Caution:** Even though these panels are “Class A” fire rated, they can be deformed with excessive heat. Never expose to heat over 60°C (140°F).

STORING

Store flat and acclimatize in the same environment for at least 24 hours prior to installation.

CUTTING

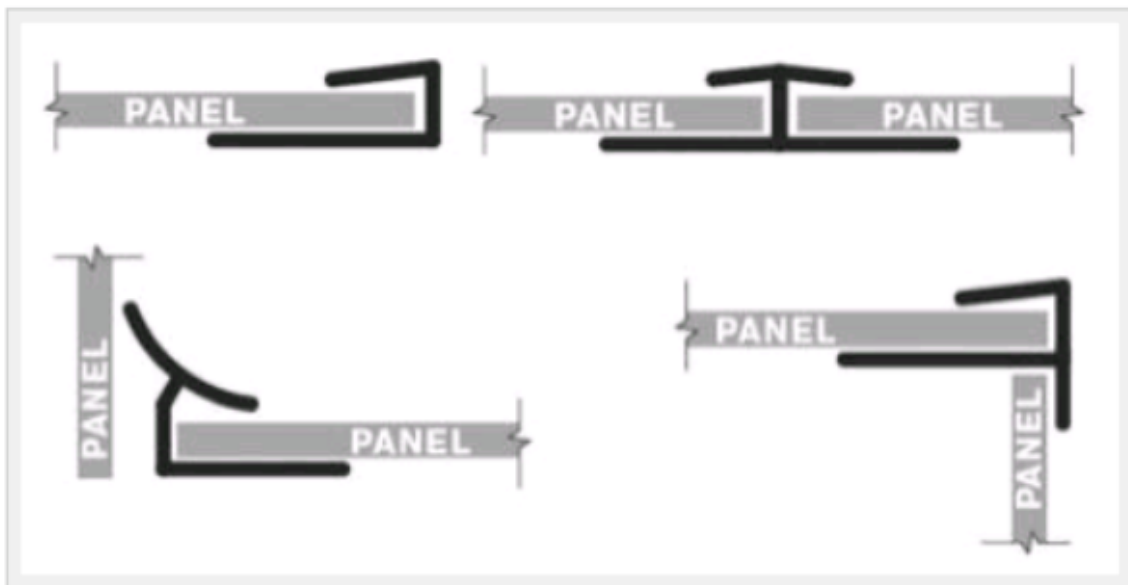
MirroFlex panels can be easily cut to size with scissors, razor knife or with a router, saw blades and drilling tools for thermoplastics. Always cut panels from the decorated side.

CLEANING AND CARE

Clean only with warm soapy water. Never use abrasive or solvent cleaners.

MOULDINGS

Mouldings are available to join and finish MirroFlex panels. Inside corners, outside corners, edge trim and divider trim strips are shown below.



(Trims are available in 8' lengths)

GRIDMAX™

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

PAINTING GUIDE

If a custom colour is desired, choose MirroFlex Paintable (gloss white) finish. Use recommended paints in accordance with manufacturer's recommendations. Due to the high chemical resistance of MirroFlex panels, only certain paints adhere well. It is very important to use recommended paints to paint MirroFlex Paintable panels.

Important: Painting MirroFlex panels will void the Class A fire rating.

The following paints have been tested and are recommended by the manufacturer of the MirroFlex panels.

MirroFlex Paintable Painting Guide

Vendor	Product	Prep 1	Prep 2
Sherwin Williams	Acrolon 218HS	TSP Cleaner (Trisodium Phosphate Powder)	DTM Bonding Primer
Benjamin Moore	Benjamin Moore Latex or Oil Paint	TSP Cleaner (Trisodium Phosphate Powder)	Fresh Start Primer
Pratt & Lambert	Pratt & Lambert Latex Paint	Scuff Sanding and TSP Cleaner (Trisodium Phosphate Powder)	Supreme Interior Multipurpose Primer

Paints Not Recommended: The following types of paints have provided poor adhesion in laboratory testing. Advanced Technology does not recommend the use of the following paint types for MirroFlex Paintable panels: epoxy paints, water-based latex paints, and oil-based enamels.

Adhesives

Many patterns of MirroFlex panels can be glued directly on walls or ceilings. Please ensure at time of order that the panels you are choosing are to be glued so that we can provide the right model.

Trowel on latex adhesives are recommended for vertical applications (walls). For ceiling applications, you can either use trowel on latex adhesives or tube adhesives.

MirroFlex panels can be glued to several surfaces such as drywall, cured concrete and plywood. It is strongly advised that these surfaces be primed, painted or both prior to gluing.

Surfaces must be structurally sound, linear, porous, clean, dry and free of contaminants. Adhesive and panels must be at room temperature (20°C) for 24 hours before, during, and after installation. Concrete walls must be fully cured and free from moisture and hydrostatic pressure.

MirroFlex panels are not recommended to be glued to non-porous substrates such as metal, glass, glazed ceramic, varnished wood, and plastic. Samples of our panels are readily available for you to test with your adhesive and substrate prior to committing to a purchase. Please contact our sales department at 1-888-544-0369 for more information.

Certain adhesives have been tested and have achieved superior results. Please consider the following brands:

- DuraPro AC-055 Panel & Construction Adhesive
- Titebond Fast Grab FRP Adhesive
- LEPAGE PL Premium Construction Adhesive
- LEPAGE No More Nails Heavy Duty Clear Construction Adhesive

MirroFlex Installation Guide

4'x8' MirroFlex Wall Panels

1. **Clean surfaces.** Before starting the installation, surface must be dry, flat, smooth and free from dust, grease, etc. Lightly sand any glossy surfaces to remove sheen.
2. **Unroll, lay flat and acclimatize** the panels for at least 24 hours in the room where they panels will be installed.
3. **Understand the overlap feature.** Prior to installation, it's important to understand the overlap feature of most panels. Most panels have two ½" flat lips or four bead & button edges to overlap each panel. Position the panels so that the flat lips are on top and on the right side.
4. **Remove protective film.** Some panels may have a transparent film protecting the surface. Remove this protective film prior to installation
5. **Apply adhesive to wall using a 3/16" v-notch trowel.** Cover the surface equivalent to the first panel you will install. **Carefully read and follow manufacturer's directions for the adhesive.**
6. **Installing panels that have flat lips or bead & button edges.** Press first panel firmly into position. Apply more adhesive and install the next panel by overlapping the second panel over the flat lip of the first panel. Working left to right, repeat until all panels are installed on that wall.
Installing panels that do not have flat lips or bead & button edges. Press first panel firmly into position. Apply more adhesive and install the next panel side by side without overlapping the panels. Working left to right, repeat until all panels are installed on that wall. **Tip:** You must remove any adhesive that gets on the finished side of the panel before it dries. Using a cloth or paper towel, clean off any residue with water (or mineral spirits if necessary).
7. **Allow space for expansion.** For every 4-foot wide sheet an expansion space of 1/32" is necessary. For an 8-foot sheet, an expansion space of 1/16" is necessary.
8. **Apply uniform pressure to panels.** When finished, use a paint roller on an extension pole to apply additional pressure to the ceiling. Working from the centre of each panel, towards their extremities, use long , even strokes to apply pressure to ensure proper even bonding.
9. **Trim installation tips.** If trims were purchased for finishing the perimeter of you your wall, you can attach the trims to the wall panels or directly on

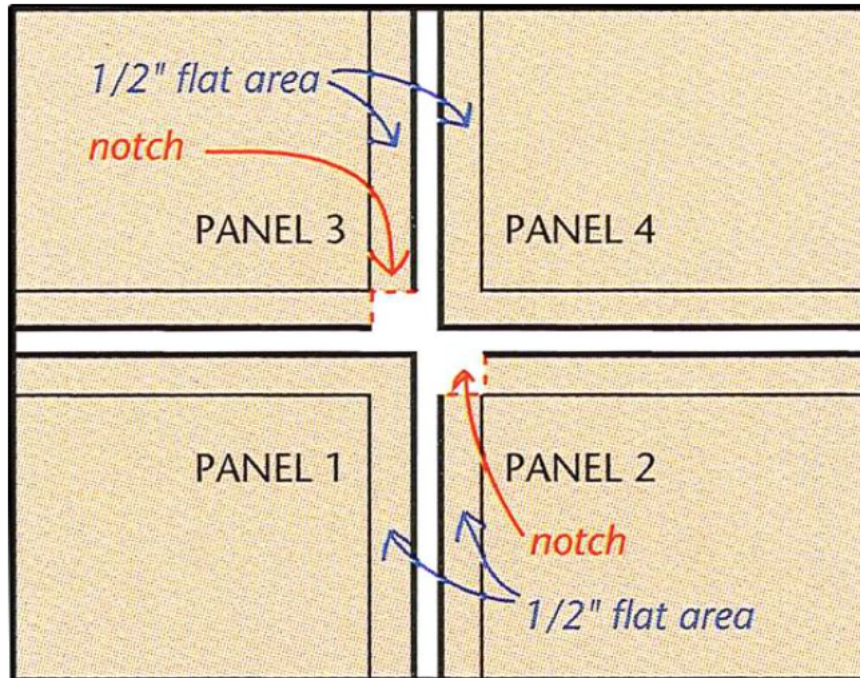
the wall perimeter before installing the wall panels. If applying the trim to the perimeter of the wall first, the trim can be bonded to the wall by using any of our recommended tube adhesive by applying a 1/8" bead to the back of the trim and pressing firmly on to the wall. Nails or staples can be used to tack trim in place until adhesive is cured. It is strongly recommended to measure, cut and dry fit trims prior to applying the adhesive for your wall panels.

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2'x2' and 2'x4 MirroFlex Glue-Up Ceiling Panels

1. **Clean surfaces.** Before starting the installation, surface must be dry, flat, smooth and free from dust, grease, etc. Lightly sand any glossy surfaces to remove sheen.
2. **Lay flat and acclimatize** the panels for at least 24 hours in the room where they panels will be installed.
3. **Determine the room layout.** Map your ceiling on graph paper before beginning installation. Locate and draw any light fixtures, heating vents, intersecting hallways, closets and doorways. Occasionally these features can influence starting points, tile placement and finished ceiling design.
4. **Understand the overlap feature.** Prior to installation, it's important to understand the overlap feature of most panels. Most panels have two 1/2" flat lips or four bead & button edges to overlap each panel. Position the panels so that the flat lips are on top and on the right side.
5. **Remove protective film.** Some panels may have a transparent film protecting the surface. Remove this protective film prior to installation.

6. **Where 4 panels intersect.** When overlapping 4 panels, it is recommended to cut a 1/2" notch in panels 2 and 3 to avoid an overlap buildup that causes a bump.



7. **Measure and cut border panels.** Measure and cut the border panel to the previously determined size. After cutting the panel and before applying the glue, clean the back surface of the panel by wiping with a clean cloth and rubbing alcohol in a well-ventilated area away from ignition sources. **Tip: When cutting border panels, do not cut the sides that have the flat lips. These are necessary for overlapping the adjacent panels.**
8. **Edge Trim.** If you will be applying MirroFlex Edge J-Trims to the perimeter of the room, install them now. The trims can be bonded to the ceiling by using any of our recommended tube adhesive by applying a 1/8" bead to the back of the trim and pressing firmly on to the ceiling. Nails or staples can be used to tack trim in place until adhesive is cured. It is strongly recommended to measure, cut and dry fit trims prior to applying the adhesive for your ceiling panels.
9. **Apply adhesive to panel or ceiling.** One method for installing MirroFlex glue-up ceiling panels is to apply the adhesive directly to the back of the

ceiling panels. When using an appropriate tube adhesive, apply a 1/8" - 1/4" diameter bead around the perimeter of the panel. Keep adhesive about a 1/2" from the outside edges to prevent leakage. Apply additional adhesive in a criss-cross pattern on back of panel for appropriate coverage. **Tip:** you can spread the tube adhesive with a 3/16" v-notch trowel for a more even and complete coverage.

If the adhesive you are using is in a tub, apply the adhesive to panel or ceiling using a 3/16" v-notch trowel.

A second method for installing MirroFlex glue-up ceiling panels is to apply the adhesive directly to the ceiling and spreading it with a 3/16" v-notch trowel. Cover the surface equivalent to the first few panels.

Tip: You must remove any adhesive that gets on the finished side of the panel before it dries. Using a cloth or paper towel, clean off any residue with water (or mineral spirits if necessary).

Carefully read and follow manufacturer's directions for the adhesive.

10. **Installing the first panel.** Place the first panel at the corner farthest from the main entrance of the room. Press panel firmly into position.
11. **Overlap.** Overlap subsequent border panel by pressing your next panel on top to the previous panel's 1/2" Flat Lip or Bead-and-Button 1/2" edge.
12. **Working** in rows across the room, add panels according to your plan. Install the full panels by overlapping each new row over the previous row. Complete each row by cutting and installing the remaining border panels if applicable.
13. **Allow space for expansion.** For every 2-foot wide panel an expansion space of 1/64" is necessary.
14. **Apply uniform pressure to panels.** When finished, use a paint roller on an extension pole to apply additional pressure to the ceiling. Use long, even strokes to apply pressure to ensure proper even bonding.

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2'x2' and 2'x4 MirroFlex Lay-In (Suspended) Ceiling Panels

MirroFlex Ceiling tiles can be installed in an approved ceiling suspension system using standard 1" or 15/16" face T-bar grid per the manufacturer's instructions. These suspension systems are readily available at most hardware retail outlets.

Tip: To prevent sagging that can occur from certain patterns, MirroFlex panels can be installed underneath a mineral board ceiling tile or some other material to weigh the panel down. An adhesive can also be applied to bond the MirroFlex panel to the mineral board ceiling tile. Contact us for more information.

1. **Determine the number of tiles required.** When installing in an existing suspended ceiling grid, count the number of whole panels and border panels needed. If installing a new grid system, perform the same count from your grid layout plan.

Certain panels have deep indentations that prevent them from being cut and used as a partial border tile. Accordingly, these patterns look best when a flat panel such as Strike is used on the perimeter of the room. All other patterns can be cut and used as a border fill panel.

2. **If installing ceiling grid covers.** Install the ceiling grid covers prior to installing the ceiling panels. Consult GridMAX installation guide for the necessary steps.
3. **Acclimatize** the panels for at least 24 hours in the room where they panels will be installed.
4. **Remove protective film.** Some panels may have a transparent film protecting the surface. Remove this protective film prior to installation.
5. **Installing the border panels.** Measure the distance from the center of the T-Bar to the closest edge of the wall molding. Measure and cut panel to this size. Tilt on an angle and insert the new tile in the grid. When installing the panels and if using mineral board as stated above, place small amounts of recommended adhesive on the backside of the MirroFlex panel to reduce the sag.
6. **Installing the full panels.** Working across the room, install the full panels using the same technique. When installing the panels, and if using mineral board as stated above, place small amounts of recommended adhesive on the backside of the MirroFlex panel to reduce the sag.

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