Profile is a collection of sophisticated panels which bring impact to spaces with dramatic pattern, texture and color. This stunning three dimensional product is created with CNC machining with proprietary tooling and advanced thermoforming capabilities.

**Features and Benefits**

- Large variety of standard patterns available
- Rich finishes or finish on site with primer and paint
- Custom patterns and finishes available
- Cost-effective decorative feature
- Easy to specify and install
- Standard Class B rating (Class A fire-rated available)

**Available Materials**

<table>
<thead>
<tr>
<th>MDF</th>
<th>Wood - Baltic Birch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire-Rated MDF</td>
<td>Wood - Poplar</td>
</tr>
</tbody>
</table>

*Wood options are both plywood made from real wood veneers

**Available Patterns** (see page 3)

<table>
<thead>
<tr>
<th>Pattern Name</th>
<th>Max Depth</th>
<th>Pattern Repeat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agile</td>
<td>1/2&quot; (12 mm)</td>
<td>All four sides</td>
</tr>
<tr>
<td>Band</td>
<td>1/2&quot; (12 mm)</td>
<td>Horizontal Only*</td>
</tr>
<tr>
<td>Braid</td>
<td>1/2&quot; (12 mm)</td>
<td>None</td>
</tr>
<tr>
<td>Burst</td>
<td>1/2&quot; (12 mm)</td>
<td>Horizontal Only*</td>
</tr>
<tr>
<td>Carve</td>
<td>1/2&quot; (12 mm)</td>
<td>None</td>
</tr>
</tbody>
</table>

*Panels can be edge matched top and bottom if they are cut down to match. Standard 4’x8’ panels will not match on the 4’ edges.

**Flatness Tolerance**

Natural bow or warp is common to all wood products; compensate with proper installation techniques.

**Specification**

**Flammability and Smoke Test Results - Building Code Approvals**

Profile panels have been independently tested and meet the criteria for approved interior finishes and light transmitting resin materials as described in the 2012 International Building Code®.

<table>
<thead>
<tr>
<th>Material</th>
<th>ASTM E84</th>
<th>Data</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Rated MDF (All)</td>
<td>Flame Spread Smoke Generated</td>
<td>15</td>
<td>Class B: 26-75 &lt;450</td>
</tr>
<tr>
<td>Standard MDF - Standard Finish</td>
<td>Flame Spread Smoke Generated</td>
<td>40</td>
<td>Class B: 26-75 &lt;450</td>
</tr>
<tr>
<td>Standard MDF - Felt</td>
<td>Flame Spread Smoke Generated</td>
<td>40</td>
<td>Class B: 26-75 &lt;450</td>
</tr>
<tr>
<td>Wood - Baltic Birch</td>
<td>Flame Spread Smoke Generated</td>
<td>70</td>
<td>Class B: 26-75 &lt;450</td>
</tr>
<tr>
<td>Wood - Poplar</td>
<td>Flame Spread Smoke Generated</td>
<td>40</td>
<td>Class B: 26-75 &lt;450</td>
</tr>
<tr>
<td>Ready-to-Paint and Unfinished</td>
<td>Not Tested</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>


**Specification**

**In-Field Painting Process**
Sand and prime the panel until it is ready to be painted. This may take more than one round of prime/paint. For ReadyToPaint, 3form Fabrication uses the following steps (which can easily be replicated in the field):

1. Sand MDF using Norton Contour Sponge medium grit (part #2257 NCSSM)
2. Remove dust using an air blower
3. Apply Valspar White Vinyl (part #VUW2000) to 4ml using an airless sprayer
4. Dry for 25 minutes
5. Sand the applied white vinyl using Norton Contour Sponge fine grit (part #2256 NCSSF)
6. Remove dust using air blower and tac rag
7. Apply Valspar White Vinyl (part #VUW2000) to 4ml using an airless sprayer
8. Dry for 25 minutes
9. The product is now ready to be painted in the field (this service is not provided by 3form)

*3form recommends a water-based paint (ie latex), though some solvent-based paint (ie. lacquer) could also work with this process.*

**Color Consistency**
Unwrapped Profile panels will not have color consistency from panel to panel as they are made using recycled/recovered forest products. Color consistency is not an issue when specifying a film wrapped Profile panel.

**Expansion/Contraction Allowances**
Like all wood products, Profile will expand and contract nominally with fluctuations in moisture content. Wood products have a possible linear expansion of ± 0.33%. A 4’×8’ panel can expand and contract ½”. Panels will swell (grow) in high humidity and shrink in low humidity applications. 3form recommends the panels be installed in a controlled environment where the relative humidity is maintained at 25-55%. Humidity below 20% or above 80% can cause problems.

**Cleaning Instructions (Felt Only)**
Wool can be cleaned by vacuuming or gently brushing by hand. Please note slight shedding of fibers is normal and not indicative of any defect. These loosened fibers are easily vacuumed away and will decrease over time. If a wet spill should occur, blot to absorb the liquid quickly and avoid absorption. Soiled areas may be cleaned with warm water or a mild dry cleaning solvent. Avoid aggressive rubbing as this can continue the felting process and change the surface appearance of that area.

**Cleaning Instructions**
Profile should be cleaned periodically. A regular, seasonal cleaning program will dramatically help prevent noticeable weathering and dirt build-up. 3form recommends the use of the following common cleaning products: Windex, Formula 409, Simple Green, Fantastik, Virex, 10:1 Water/Bleach Solution. Remove dust and dirt from Profile with a soft cloth or sponge and a solution of mild soap and/or liquid detergent in water. A 50:50 solution of isopropyl alcohol and water also works well. Always use a soft, damp cloth to blot dry. Rubbing with a dry cloth scratches the material and creates static charge. Never use scrapers or squeegees on Profile. Also avoid scouring compounds, gasoline, benzene, acetone, carbon tetrachloride, certain deicing fluids, lacquer thinner or other strong solvents.

**Pattern Overview**

- **Braid**

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Pattern Overview cont...

**Bub**

- Pattern Parallel to 48" Direction
- Pattern Parallel to 96" Direction
- Omni-directional

**Burst**

- Pattern Parallel to 48" Direction
- Pattern Parallel to 96" Direction

**Luxe**

- Pattern Parallel to 48" Direction
- Pattern Parallel to 96" Direction

**Metric**

- Pattern Parallel to 48" Direction
- Pattern Parallel to 96" Direction
Pattern Overview cont...

**Metro**

Pattern Parallel to 48" Direction

Pattern Parallel to 96" Direction

**Mingle**

Pattern Parallel to 48" Direction

Pattern Parallel to 96" Direction

**Nod**

Pattern Parallel to 48" Direction

Pattern Parallel to 96" Direction

**Prism**

Pattern Parallel to 48" Direction

Pattern Parallel to 96" Direction
Pattern Overview cont...

**Switch**
- Pattern Parallel to 48" Direction
- Pattern Parallel to 96" Direction

**Tread**
- Pattern Parallel to 48" Direction
- Pattern Parallel to 96" Direction

**Trig**
- Pattern Parallel to 48" Direction
- Pattern Parallel to 96" Direction

**Zing**
- Pattern Parallel to 48" Direction
- Pattern Parallel to 96" Direction

For more information, please visit 3-form.com or call 800.726.0126

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How to Match Pattern Between Profile Panels

The orientation of the pattern must stay constant in order for the panels to repeat. When creating a full wall of panels, use full size panels in the middle of the configuration and align factory edges for the pattern to properly repeat. All cuts should be made on the outer edge of the panels on the perimeter of the feature.

Omni-Directional Repeating Pattern

An omni-directional repeating pattern will allow for unlimited project areas. Identical panels may be used to extend the pattern in any direction. Patterns fit together top side to bottom side and left side to right side. The orientation of the pattern must stay constant in order for the panels to repeat.

The following patterns are omni-directional repeating patterns:

<table>
<thead>
<tr>
<th>Agile</th>
<th>Crest</th>
<th>Pinstripe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band</td>
<td>Dash</td>
<td>Pleat</td>
</tr>
<tr>
<td>Braid</td>
<td>Luxe</td>
<td>Prism</td>
</tr>
<tr>
<td>Bud</td>
<td>Meridian</td>
<td>Stria</td>
</tr>
<tr>
<td>Burst</td>
<td>Metro</td>
<td>Switch</td>
</tr>
<tr>
<td>Carve</td>
<td>Mingle</td>
<td>Tread</td>
</tr>
<tr>
<td>Chasm</td>
<td>Motion</td>
<td>Trig</td>
</tr>
<tr>
<td>Chisel</td>
<td>Nod</td>
<td>Veer</td>
</tr>
</tbody>
</table>

The Braid, Tread, Luxe and Prism patterns are the only patterns that can be cut and still maintain omni-directional pattern matching. Cut at intervals listed and pictured below.

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For more information, please visit 3-form.com or call 800.726.0126
How to Match Pattern Between Profile Panels cont...

Uni-Directional Repeating Pattern

A uni-directional repeating pattern can only be used to fill an area in the horizontal direction. Identical panels may be used to extend the pattern parallel to the 4’ side. Patterns fit together left side to right side only. The orientation of the pattern must stay constant in order for the panels to repeat. The pattern can extend vertically if they are cut along the dashed lines above. The Metric and Zing patterns are uni-directional.

Uni-directional can be cut and maintain pattern matching. Cut at intervals listed and pictured below.

Non-Repeating Pattern

A non-repeating pattern will not match on any side. However these patterns are deliberately designed to not match, and can still allow for unlimited project areas.

Plank

Profile is also available in two separate Plank options. All of the unique texture options are available in Plank Small and Plank Large. Each piece is individually cut and wrapped. The sizes are listed in the following table.
How to Match Pattern Between Profile Panels cont...

Transition
Profile patterns can fade in either direction using Transition. As an example, the following figures show Carve 48 and Carve 96 with four transition options.

Non-Seamless Installation
There are a variety of possible ways of installing Profile panels.

Direct Screw Attachment
(Unfinished/ReadyToPaint Panels Only)
Profile panels can be attached to a wall by screwing directly through the panel. Construction mastic should also be used to supplement the screws. It is required to leave a $\frac{3}{8}''$ gap between panels to allow for expansion and contraction of the wood panels. This technique should only be used on non-wrapped panels that will be painted in the field. Holes in the panel should be pre-drilled and counter-sunk. After screwing the panel to the wall a non-shrinking filler like Bondo may be used to cover the holes. Please note that non-shrinking filler should not be used between panels. A flexible seam filler should be used in between panels. This method is limited to a maximum of 6 panels.

Adhesive
If using an adhesive to glue the panels directly to the wall, it is required to leave a $\frac{3}{8}''$ gap between panels to allow for expansion and contraction of the wood panels. An industrial grade silicone such as Momentive SilGlaze II SCS 2800 can be applied to the back of the panels in combination with 3M 4496 foam tape. Silicone should be applied in dots as it needs moisture (air) to cure. Alignment of the panels prior to curing is important as the panels may not be re-aligned after curing. Panel installations more than 16’ wide should use panel cleats. For additional installation questions or concerns please contact our technical support line at 1-800-726-0126.
Non-Seamless Installation cont...

Panel Cleats
To install Profile panels to the wall using panel cleats, first panel cleats must be attached to the back of the panel. Panel cleats should run the entire width of the panel and special care should be taken with regards to the length and size of the screws used and where the screws are placed so as not to impact the front finish of the panel. Construction mastic or adhesive should also be used to supplement the screws. A minimum of (3) rows of panel cleats are necessary per 8’ tall panel. Rows of panel cleats should be situated on the top and bottom edge of the panel, with additional rows spaced evenly between. Plywood or solid wood “in-wall” blocking is required.

When gluing multiple panels together, it is necessary to leave space at both end panels to allow expansion and contraction of the entire panel system. Glued joints should only be used on smaller installation of 2-6 panels or when using recommended panel cleats as shown. Panel cleats will allow the entire feature to expand and contract. Use this formula to calculate the maximum expansion tolerances for your feature.

\[ \text{Max Length of feature} \times 0.0006 \text{ in/in} = \text{Max. Dimensional change} \]

Seamless Installation (4 Panels or Fewer)
To install a seamless Profile panel installation of fewer than four panels follow these simple recommendations:

- Use 3M 4496 VHB Foam Tape. Use a \( \frac{3}{16} \)" reveal between panels.
- Place tape around perimeter and approximately every 12" OC (See Figure 1)
- Use a J roller to ensure tape seals well to back of panel. Panels can be installed with VHB tape and Construction Mastic, or VHB tape with bottom support. The bottom support is shown in Figure 2. You can use a \( \frac{3}{4} \times 1 \)" aluminum angle (machining the back of the panel will be necessary) or a \( \frac{3}{8} \times 4 \)" wood base (by others).

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Seamless Installation (up to 6 Panels)

This installation method is only to be used for unfinished or ReadytoPaint panels. First prepare the wall for panel cleat installation. Use soft maple or poplar for panel cleats. There must be a minimum clearance of ⅜” on both sides of the final installation size. 3form recommends 4” distance from the floor to the bottom of the panels. Minimum of ½” clearance on the top of the panel. See Figure 3 for recommended cleat locations on panel.

Next to insure that the panel cleats are flat (to make up for irregularity in the wall surface), start on the bottom row of panel cleats. Insert 1½” - #8 pan head screws on the far left and far right of the panel cleats and then stretch a jet line or fine line between the two screws and pull very tight. Keep the line 1” away from the face of the panel cleat. (See figure 4) Use a 6” tape measure and measure between cleat and jet line at each fastener going into the wall. Loosen grabbers where necessary and install horseshoe shims to achieve a consistent 1” between cleat and jet line.

Next, the next two sections of panel cleats need to be plumb to the bottom panel cleats. To do so, take a straight edge and a level and align it from the bottom panel cleat to the middle upper panel cleat and use the level to make sure it is plumb. Shim as necessary. Use (3) panel cleats per 8’ panel, and add blocking as needed on the wall to support the panel.

Next the panels need to be prepared for installation to the wall. To do so, the panels need to be biscuited and edge glued. Panel cleats need to be installed into the back of the profile panels.

First screw and/or glue wood blocking and panel cleats into the panel according to Figure 5. Wood blocking needs to be 2” wide by ⅜” thick. The wood blocking is shown in Figure 5.
Seamless Installation (up to 6 Panels) cont...

Once this is compete, edge glue the panels together (Biscuits are recommended for strength) using wood glue as shown in Figure 6 and Figure 7.

Figure 6

Biscuit

Glue Joint

Figure 7

The back side of a 5-panel edge-glued piece is shown in Figure 8. Once the panels are glued together, install them onto the wall mounted panel cleats as shown in Figure 9.

Figure 8

Figure 9