Installation Guidelines for Modular Carpet

Ecoflex™ Urethane Cushion Backed Carpet Tiles
PVC Backed Carpet Tiles
Thermoplastic Backed Carpet Tiles
Self Lock® Carpet Tiles
Installation Guidelines

The Mohawk Group’s Modular Carpet Tiles are intended for installation on dry, properly prepared floors. These products are not intended for installation on walls, outside use, or wet surfaces.

The Mohawk Group is not responsible for any product failure due to improper floor preparation and/or installation procedures. The required adhesives are The Mohawk Group’s Enpress® family of adhesives.

Moisture & pH Testing

Concrete - Conduct a moisture test.

Perform one moisture and pH test for every 1000 square feet prior to installation.

Moisture in the subfloor will interfere with the curing and performance of the adhesive. Moisture emissions must be determined by use of Anhydrous Calcium Chloride test kit. The test must be administered to the specification of the ASTM F 1869 test procedure. Moisture emissions must not exceed 5 pounds per 1000 square feet for 24 hours. If the concrete test is higher than 5 lbs, do not proceed with installation. Please contact Field Services at 800.833.6954.

Another option is the "in-situ Relative Humidity" (RH) test which is the required test method for determining relative humidity of the concrete slab. The test must be administered to the specification of the ASTM F2170 test procedure. The result must not exceed 80% per 1000 square feet. If the result is higher than 80%, do not proceed with installation. Please contact Field Services at 800.833.6954.

All concrete floors, old or new, must be tested for alkalinity by using an alkalinity test kit. The area to be tested must be weather tight and conditioned, via building HVAC system, to a minimum temperature 65° F not to exceed 95 °F and a relative humidity range of 40% to 65%. The temperature and humidity must be maintained for at least 48 hours immediately prior to conducting the test and during the test.

The slab must have an alkalinity level between 5.0 and 9.0 to be suitable for carpet installation. Should the pH be outside this range, stop and do not proceed with install. Please contact Field Services at 800.833.6954.

NOTE: Results of this testing must be maintained and submitted with any warranty claim.

Site and Material Condition

The floor must have a minimum temperature of 65°F and a maximum temperature of 95°F for at least 72 hours prior to installation and 48 hours after installation. The Relative Humidity must be below 65%. Cold subfloor and high humidity could cause the adhesive to not function properly.

The temperature of the installation site, adhesive, and carpet must be maintained between 65°F – 95°F 24 hours prior to, during and after the installation. The Relative humidity must be 65% or below. The installation site must be acclimated with HVAC in operation.

Installation of The Mohawk Group’s branded Carpet Tile on a floor outside the scope of the guidelines in this document will void all applicable warranties.

Floor Preparation

The floor must be sound and dry prior to the installation of the Modular system. Any curing chemicals, sealers, or other chemicals must be compatible with the Modular backing system and The Mohawk Group’s specified carpet tile adhesives. Mechanically remove all wax, dirt, grease, paint, or old adhesives. DO NOT use solvents to clean the floor. DO NOT use oil based sweeping compound. Do NOT install over resin or silicate based curing compound.

The Mohawk Group
The floor must be flat to within 1/8" in 10 feet. Cracks, holes and depressions must be filled using a Portland based patching compound. Use leveling compound when required.

Sweep and vacuum the floor. Smooth, nonporous floors must be damp mopped prior to installation. All dust must be removed or primed with PrimeCoat to ensure proper adhesion. Old cut-back adhesive must be properly removed and sealed with The Mohawk Group's SureSeal™ prior to any direct glue-down installation.

The Mohawk Group accepts no responsibility for loose asbestos containing flooring, adhesive or other asbestos-containing floor coverings that require special preparation, handling, and removal procedures. Consult the appropriate local or state authorities or the Resilient Floor Covering Institute before disturbing any suspected asbestos-containing material.

**Floor Priming**

All Gypcrete floors or substrates that have excessive dust must be cleaned, then primed with The Mohawk Group's PrimeCoat or an approved primer such as a latex milk additive.

**Concrete:** Prime only if floor is extremely porous or has excessive dust. Note: Any existing sealer or primer must be tested for compatibility with The Mohawk Group's Adhesive. Terrazzo, Marble, Vinyl Tile (VAT or VCT), Linoleum and other smooth nonporous surfaces do not require priming. Damp mop only. If patching is required on these areas, prime the patched areas.

A bond test must be performed over concrete substrates with unidentified sealers or primers: Adhere a small area of 2-3 feet of carpet and allow to dry completely. Let set for 24 hours. If the adhesive is bonded tightly, proceed with installation.

**Plywood Floors:** Plywood Floors must be completely primed. Plywood substrates must be no less than ¾" thickness. Particleboard or thin plywood is not acceptable substrates.

**Site Layout**

1. The starting point in a modular installation must be as near to the center of the room as possible and must be positioned to utilize the largest perimeter cut module size.

2. Snap a chalk line parallel to one major wall bisecting the starting point. It will be necessary to offset the center chalk line to assure perimeter modules will be at least half size.

3. A second chalk line must be snapped from the starting point at 90° to the first line. This can be accomplished using a 6-8-10, or larger triangle, depending on the room size. (See Illustration A) Meters or feet will be used to lie out the triangle in these proportions.

Illustration A
**Equipment and Supplies**

<table>
<thead>
<tr>
<th>Razor Blades</th>
<th>Razor Blade Knife</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy-Duty Frame Paint Roller with 3/8” Nap Roller</td>
<td>Straight Edge</td>
</tr>
<tr>
<td>TMG’s Adhesives</td>
<td>Chalkline</td>
</tr>
<tr>
<td>Wall Trimmer with Hook Blade (optional)</td>
<td>Scissors</td>
</tr>
<tr>
<td>Cushion Back Cutter</td>
<td>Floor Scraper</td>
</tr>
<tr>
<td>Tape Measure</td>
<td>75 lb. Roller or 100 lb. Roller</td>
</tr>
<tr>
<td>1/16 x 1/16 x 1/16 square notch trowel (Ecoflex)</td>
<td>Portland Patching Compound</td>
</tr>
</tbody>
</table>

**Pallet and Box Sequencing**

It is very important to install carpet tiles in the order they were manufactured. This is easily accomplished by selecting pallets in sequential order and following the numbers located on each carton of tiles to ensure the most uniform look. Typically, an installation will begin with the lowest carton numbers and progress through the highest numbers until the project is complete.

**Adhesive Application**

**Enpress Adhesive Application**

- Non Mohawk Group adhesives will not be compatible and will void product warranties.
- If Self Lock carpet tiles have been purchased, the adhesive has been pre-applied to the backing. Carpet tiles can be installed directly to the floor with no additional adhesive. If the substrate is dusty or porous, use The Mohawk Group’s PrimeCoat to prime the surface.
- For PVC and Thermoplastic carpet tiles, apply the adhesive with a heavy-duty frame paint roller with 3/8” nap roller. For Ecoflex tiles, apply the adhesive with a 1/16 x 1/16 x 1/16 square notched trowel as directed by the adhesive label.
- The adhesive must be applied in a FULL SPREAD – NOT grid.
- The spread rate for roll on application is 35 to 40 yards per gallon when using a 3/8” nap roller. Ensure the proper application amount of adhesive to the subfloor. Prior to installation, mark off a small area of the subfloor and determine the adhesive spread rate. This will allow you to determine the proper coverage level and amount of pressure to apply to the roller during installation.
- On smooth surfaces, be careful not to apply too little adhesive. Just because a surface is smooth and/or sealed, it still requires a proper coating of adhesive.
- Allow the adhesive to dry to a clear and tacky state. Tiles must be installed immediately after adhesive has dried. To determined if the adhesive is dry, press finger into adhesive. When dry, adhesive must not transfer to finger.
- (Ecoflex Urethane Cushion Tile) - The spread rate for trowel application must be between 16 – 22 square yards per gallon.

**IMPORTANT:** Set-up time is approximately 45 to 90 minutes depending on the climate & humidity. Use of blower fans will speed drying time.

- Roll Floor with 75 to 100 pound Roller
<table>
<thead>
<tr>
<th>Material</th>
<th>Spread Method</th>
<th>Spread Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC Vinyl Tiles</td>
<td>3/8” Roller</td>
<td>16 – 22 square yards per gallon</td>
</tr>
<tr>
<td>Thermoplastic Tiles</td>
<td>3/8” Roller</td>
<td>35 - 40 square yards per gallon</td>
</tr>
<tr>
<td>Ecoflex Urethane Cushion Tiles</td>
<td>1/16x1/16x1/16 Square notch Trowel Only</td>
<td></td>
</tr>
<tr>
<td>Self Lock Carpet Tiles</td>
<td>Adhesive Already Applied</td>
<td></td>
</tr>
<tr>
<td>1/16”x1/16”x1/16” square notched trowel</td>
<td>(Ecoflex Urethane Cushion Tile)</td>
<td></td>
</tr>
<tr>
<td>3/8” Nap Roller Approximately</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NuSpraylok™ Adhesive Application**

For PVC backed carpet tiles and Ecoflex Urethane Cushion carpet tiles, The Mohawk Group’s NuSpraylok Spray Adhesive may also be used. For specific product information and installation instructions, obtain the Technical Data Sheets on the following SKUs: DK115, DK116, and DK131 may be used for PVC tiles. DK130, DK128 and DK127 may be used for Ecoflex Urethane tiles.

Technical Data Sheets may be obtained from the Mohawk Group’s Field Services department by calling 1-800-833-6954 and selecting option 5.

**Tile Installation**

Make sure to inspect The Mohawk Group Tiles for dye lot style, quality and shipping damage prior to installation. Do not install any product that has visible problems. For concerns, please contact Field Services at 800.833.6954.

1. Before you begin the installation consult product specification to determine which installation format(s) are approved. Shown below are some common installation formats.

   - **Monolithic**
   - **Quarter-Turn**
1. Start from the intersection point in the center of the floor. Install the tiles in one quadrant using the chalk lines as guidelines. Fill in the area in between the two chalk lines using the stair step method.

2. Continue to install tiles in a stair step or pyramid pattern, starting at the center point. Check to ensure tiles are properly aligned at edges during the installation.

3. Fit the tiles together by sliding them together, being careful not to trap face yarns between or under the edges of the tile. Press or roll the tiles into the adhesive. They will be removed at any time and repositioned.

Ashlar Formats
In the Ashlar installation formats, each row of carpet tiles is shifted 8 inches, either in a brick format or vertically (see diagrams to the left). This is a three-step process, i.e. each successive row of tiles must be offset one-third the length of the tile. It is not acceptable to shift the tiles only one-half the length of the tiles (two-step process). This installation method maintains the random appearance of the carpet tiles, eliminating line-on-line or dark-on-dark effects that can create a skewed look in the finished installation.

NOTE: Carpet tile products installed in the ashlar format will not have the same finished appearance as the same product in a broadloom (12’ width).

Multi-Directional Format (Follow No Order)
All arrows on the tiles must be turned in different directions. Although there is no specific directionality that the installer must follow, products specified “Multi-Directional” cannot be installed with arrows facing the same direction on touching tiles. Mixing tiles from various boxes during installation will further blend color and design elements. This process is essential for achieving optimal aesthetics.
**IMPORTANT:** As the tile is placed into position, start with a lower corner and press the tile into place in an upward motion with the palm of the hand. The entire tile must be pressed with the installers' palm. Do not try to put both corners down at the same time. *Do not jam or force the tiles too tightly.*

To ensure that the tiles are placed into the correct position and not compressed, the installer must measure 10 tiles. When installing Thermoplastic tiles, the measurement must be between 240 3/16” to 240 7/16”. When installing PVC tiles, the measurement must be between 240 – 240 1/4”.

**NOTE:** Tiles that are trimmed against the walls, baseboards, columns, etc. must be cut flush, but not too tight where they are forced into position. Ensure that the adhesive spread is within 1/2” of walls and other obstructions.

4. All carpet tiles must be rolled with a 75 lb. or 100 lb. roller.

5. Use an Orcon steel wheel seam roller or similar roller to blend and enhance the seams. The loop pile modules will have some yarn blossoming at the edges. The face yarn will require occasional trimming.

**Cutting Border Tiles**

Cuts are made from the back. Install border tiles by placing the tile face down exactly on top of the last row of field tiles, keeping the arrows pointed in the same directions. This will be your cut tile. Using another tile, butt it against the wall allowing it to lie on top of the tile that is to be cut. Using this tile as a reference tile, score a line on the back of the tile that is to be cut. Cut the tile along the reference line being careful not to cut through the installed tile below. Install the cut tile with the cut edge along the wall. Use this same technique at doorways and other objects that must be cut around. A transition strip must be used to protect any exposed edges.

**Stairs**

Modular Tiles Are Not Recommended For Stairs

**Finished Installation**

Do not allow traffic on tiles unless they are anchored at control grids and perimeters. When heavy furniture is wheeled over tiles, use plywood runners to avoid tile shifting. Carpet should be protected from heavy traffic and construction dust with a non-staining building material paper, such as “kraft” paper. Never use plastic sheeting as it will trap moisture and prevent proper curing of the adhesives. Plastic may also leave residues that can result in rapid soiling after removal.

**Chair Pads**

Chair pads are not required, but are recommended for use under chairs with roller casters. Casters must be the flat round type with 5/8” to 1” width minimum. If chair pads are not used, the appearance of the carpet tile will decrease. Maintenance and/or shifting of the modular tiles will be required more frequently when pads are not used.

**Replacement Tiles**

Occasionally, it will be necessary to replace damaged or heavily soiled tiles. Tiles can be replaced with on site inventory or from another area of the installation. A difference of appearance will be noticed when the tile is replaced, however, this difference usually diminishes in a short time.

For assistance, please contact The Mohawk Group
Field Services Department, 800.833.6954