Carpet Tile & Plank Direct Glue Down

INSTALLATION

EcoFlex® ICT
EcoFlex® NXT
EcoFlex® AIR
EcoFlex® Matrix
This information, offered as a customer service, is based on Mohawk Group’s engineering test and field experience. It is intended for installers with professional experience to be used at their discretion and risk. Mohawk Group does not guarantee results and assumes no liability in connection with these instructions.

**Site Conditions**

Newly poured concrete floors generally will take 90 days per inch to cure. Concrete slabs must be tested for moisture by the current version of ASTM F2170. (Consult CRI 104 part 6.2 for standard test method for determining relative humidity on concrete floor slabs using In-Situ Probes.) Below are the requirements for each Mohawk Group Carpet Tile product.

**EcoFlex ICT**
- If reading is below 80% RH, EnPress only
- If reading is between 80-90% RH, OptiSeal is required
- If reading exceeds 90% RH, consult Mohawk Group Technical Services at 800.833.6954

**EcoFlex AIR**
- If reading is below 90% RH, EnPress only
- If reading is between 90-95% RH, OptiSeal is required
- If reading exceeds 95% RH, consult Mohawk Group Technical Services at 800.833.6954

**EcoFlex NXT & EcoFlex Matrix**
- If reading is below 90% RH, EnPress or FlexLok tabs
- If reading is between 90-95% RH, OptiSeal or FlexLok tabs are required.
- If reading exceeds 95% RH, and no signs of visible moisture are present, Mohawk FlexLok tabs are an acceptable alternative solution to other moisture mitigation solutions. For thorough guidelines regarding site conditions, floor prep and installation consult the complete set of FlexLok installation instructions.

The alkalinity or pH in a concrete slab must be tested by the current version of ASTM F710 for a glue-down installation.

**EcoFlex ICT**
- If pH exceeds 9, consult Mohawk Group Technical Services at 800.833.6954

**EcoFlex AIR**
- If pH is between 10-11, Optiseal is required
- If pH exceeds 11, consult Mohawk Group Technical Services at 800.833.6954

**EcoFlex NXT & EcoFlex Matrix**
- If pH is between 10-11, Optiseal is required
- Mohawk FlexLok tabs are an acceptable solution for pH between 10-12. For thorough guidelines regarding site conditions, floor prep and installation, consult the complete set of FlexLok installation instructions.
Gypcrete or substrates with excessive dust must be cleaned and then primed with a product such as PrimeCoat to ensure proper bonding.

The floor and room temperature must be acclimated by maintaining the temperature between 65°F and 85°F, and the humidity between 30% and 65%, for at least 48 hours before and during installation. In addition, the carpet and adhesive should be stored under these conditions for at least 24 hours before installation. The installation site must be acclimated with controlled temperature and humidity.

When the installation is complete, the jobsite must be maintained at normal service temperature and humidity.

Floor Preparation and Existing Adhesives

- Pre-existing adhesive ridges should be mechanically or hand scraped to a residue to create a smooth flat surface before installing our carpet products. Mohawk cannot be held liable for issues arising from excess adhesive left on the substrate; this includes, but is not limited to, bond failures between encapsulated / skim coated old adhesive and patching compounds used in place of removing adhesive (mechanically or hand scraped) to a smooth surface. OptiSeal must be applied to the substrate after proper removal of adhesive when EcoFlex ICT carpet tiles are being used. Any cut back adhesive should be scraped smooth with only residual adhesive remaining in the pores of the substrate and sealed with OptiSeal as well.

- Mechanically remove all wax, dirt, grease and paint. DO NOT use solvents to clean the floor. DO NOT use oil based sweeping compounds. Fill cracks larger than 1/16” wide with a cement-based patching compound. The floor must be flat to within 1/8” in 10 feet. Use leveling compound when required. Patched areas may need to be primed with an approved primer such as PrimeCoat. (Consult patch manufacturer for requirements.) DO NOT install over resin or silicate based curing compounds.

- Floor tiles containing asbestos, any adhesive possibly containing asbestos, or other floor coverings containing asbestos 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.

- Installation of Mohawk Group carpet tiles on a floor outside the scope of the guidelines in this document will void all applicable warranties.

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

- When installing carpet tiles over raised access floor panels, start installation by overlapping the access panel joints to prevent the seams of the tiles from lining up with the access panel joints. Additionally, all access panels should be sound, level and edges firmly secured to the raised flooring pedestals.

Floor Priming

- **Concrete**: Prime if floor is extremely porous or has excessive dust. Note: Any existing sealer or primer must be tested for compatibility with 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 surfaces, prime the patched areas if required by patch manufacturer.
NOTE: When non-asbestos containing cut-back or any incompatible adhesive is present, existing adhesive has evidence of plasticizer migration, or EcoFlex ICT (PVC) products are being installed, the existing adhesive must be properly removed and Mohawk Group’s OptiSeal must be applied over the adhesive residue. Chemical adhesive removers cannot be used to remove old existing adhesives.

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

- **Wood substrates** are required to be structurally sound, flat, dry and securely anchored with ¾” minimum thickness. Substrates, such as plywood, OSB or other materials must be flooring grade (APA approved) and installed according to manufacturer specifications. Irregularities, imperfections and joints must be properly patched and prepared. Primer such as PrimeCoat is required over any wood substrate.

### Installation

- Inspect all carpet prior to cutting and contact your sales representative before installing the carpet if you discover any problems. No claims will be allowed for visible defects after the carpet has been cut and installed.

- Never cut carpet over carpet, as this can result in over penetration of the blade and severed loops on the lower carpet.

- Carpet should be protected from heavy traffic and construction dust with a non-staining, building material paper. Never use plastic sheeting as it will trap moisture and prevent proper curing of the adhesive. Plastic may also leave residues that can result in rapid soiling after removal. Plywood or Masonite boards should be used when moving heavy equipment.

- If any of the above conditions are not attainable, contact Mohawk Group Technical Services at 800.833.6954.

### Required Equipment

The following items may be purchased from a local carpet workroom supplier:

- Razor Blades
- Straight Edge
- Mohawk Group EnPress Adhesive
- Framing Square
- Floor Scraper
- Tape Measure
- 1/16” x 1/32” x 1/32” U-Notch Trowel (EcoFlex AIR)
- Razor Knives
- Chalk Line
- Scissors
- Cement-based Patching Compound
- 75 lb. Roller or 100 lb. Roller
- Heavy Duty Frame Paint Roller with 3/8” Nap Roller OR a 1/16” x 1/32” x 1/32” U-Notch Trowel (EcoFlex ICT, EcoFlex NXT and EcoFlex Matrix)
Site Layout

1. The starting point in a carpet tile 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 below). Meters or feet will be used to lay out the triangle in these proportions. A framing square can also be used.

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.

Adhesive Application

EnPress Adhesive Application

- EcoFlex ICT, NXT, Matrix and AIR require EnPress Adhesive.
- Other adhesives may not be compatible and will void product warranties.
- For EcoFlex ICT, EcoFlex NXT and EcoFlex Matrix carpet tiles, apply the adhesive with a heavy-duty frame paint roller with a 3/8” nap. A trowel can also be used (1/16” x 1/32” x 1/32” U-Notch minimum). For EcoFlex AIR tiles, the adhesive must be applied with a 1/16” x 1/32” x 1/32” U-Notch trowel.
- The adhesive must be applied in a FULL SPREAD – NOT grid.
- Ensure the proper amount of adhesive is applied to the sub-floor. Prior to installation, mark off a small area of the sub-floor 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 determine if the adhesive is dry, press finger into adhesive. When dry, adhesive will not transfer to finger.

Set-up time is approximately 45 to 90 minutes depending on the climate and humidity.
### Product Spread Method Spread Rate

<table>
<thead>
<tr>
<th>Product</th>
<th>Spread Method</th>
<th>Spread Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EcoFlex AIR Cushion Tiles</td>
<td>1/16”x1/32”x1/32” U-notched trowel</td>
<td>25-30 square yards per gallon</td>
</tr>
<tr>
<td>EcoFlex ICT Tiles</td>
<td>3/8” Roller</td>
<td>Approximately 35-40 square yards per gallon</td>
</tr>
<tr>
<td>EcoFlex Matrix</td>
<td>1/16”x1/32”x1/32” U-notched trowel</td>
<td>Approximately 25-30 square yards per gallon</td>
</tr>
<tr>
<td>EcoFlex NXT Tiles</td>
<td>3/8” Roller</td>
<td>Approximately 35-40 square yards per gallon</td>
</tr>
<tr>
<td></td>
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</table>

- **MONOLITHIC**
- **QUARTER TURN**
- **BRICK ASHLAR, 3-STEP 8” OFFSET**
- **VERTICAL ASHLAR 3-STEP 8” OFFSET**
Tile Installation Methods

Before you begin the installation, consult product specifications to determine which installation formats are approved. Shown below are some common installation formats.

Ashlar Formats

In the Ashlar installation formats, each row of carpet tiles is shifted 8”, either in a brick format or vertically (see diagrams above). 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.

Please 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)

Tiles are to be placed without being concern for the arrow direction (random). Mixing tiles from various boxes during installation will further blend color and design elements. This process is essential for achieving optimal aesthetics.

Plank Tile Installation Methods

12 x 36

<table>
<thead>
<tr>
<th>MONOLITHIC</th>
<th>MONOLITHIC STEPPING</th>
<th>HALF-LAP</th>
<th>BRICK ASHLAR</th>
<th>RANDOM</th>
<th>HERRINGBONE</th>
<th>BASKETWEAVE</th>
<th>PLANK HALF-LAP</th>
</tr>
</thead>
</table>

12 x 36 + 24 x 24

<table>
<thead>
<tr>
<th>MONOLITHIC STEPPING</th>
<th>HALF-LAP</th>
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<th>RANDOM</th>
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</tr>
</thead>
</table>
Installation

Make sure to inspect Mohawk Group carpet 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 Technical Services at 800.833.6954.

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 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. (See figure to right).

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.

**IMPORTANT:** When installing EcoFlex NXT, EcoFlex Matrix and EcoFlex AIR tiles, the 10-tile measurement must be between 240 3/16” to 240 7/16”. 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.

When installing EcoFlex ICT tiles, the 10-tile measurement must be between 240” to 240 1/4”. As the tile is placed into position, slightly apply pressure making sure the seams are tightly joined together.

**Please note:** Tiles that are trimmed against the walls, baseboards, columns, etc. must be cut flush, but not so tight that 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. A seam roller can be used 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 around other objects that must be cut. The EcoFlex NXT and EcoFlex Matrix tile must have the backing cut slightly shorter by cutting the backing at a slight angle. A transition strip must be used to protect any exposed edges. Never use a cut edge as a seam.

Tiles can also be cut by measuring and cutting from the back with a straight edge and knife or by running them up the wall and cutting them with a knife or wall trimmer.
Stairs

Carpet tiles are NOT recommended for stairs.

Chair Pads

Chair pads 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 carpet 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.

Please note: The use of Mohawk Group branded adhesives is required to ensure optimum results and are the only approved adhesives that the Mohawk Group will warrant. Failure to use our branded adhesives can result in warranties being null and void.