# Carpet Tile Installation Recommendations

#### Notes:

- It is the responsibility of the installer to verify, before installation, that all material conforms to the owner's specifications including product, color, and dye lot. If the wrong product is installed, the manufacturer will not be responsible for corrections.
- These products are not intended for installation on walls, outside use, or wet surfaces.
- After installation, use plywood over the carpet when moving heavy objects.
- These installation recommendations are offered as a customer service and are based on product knowledge and field experience. These installation recommendations are intended for professional installers and can be used at their discretion and risk. The manufacturer does not guarantee results and assumes no liability in connection with these recommendations.

<u>Preparation</u>: It is the owner's or general contractor's responsibility to provide an acceptable substrate for the specified installation, which must also be inspected by the installation contractor prior to installation. Existing adhesive trowel ridges must be leveled by scraping, sanding, or patching with a Portland based leveling or patching compound, prior to adhesive application, to ensure proper pressure sensitive adhesive contact. All cracks should be filled using a Portland based leveling or patching compound. Should you encounter asbestos containing or other hazardous materials, you should stop the installation immediately and obtain assistance from a qualified remediation consultant prior to continuing the preparation process. Do not install over resin or silicate based curing compounds. Do not use oil or silicate based sweeping compounds. Bond tests must be performed over concrete with unidentified sealers or primers. Apply approved adhesive and tile in a 4 ft. area and let set for 24 hours then check adhesive bond to the floor.

## <u>Moisture</u> **Emissions:**

The building owner, or the general contractor, or their testing agent must submit to the flooring contractor a written report on the vapor emissions level and the surface alkalinity of the concrete subfloor. All subfloors must be tested for moisture emission rates using an anhydrous calcium chloride moisture test. The test must be conducted in strict compliance with ASTM Test Method F 1869. The moisture emission rate is measured in pounds of moisture over a 1,000 sq. foot area during a 24 hour period. Carpet tiles should not be installed in areas where the emission rate exceeds 5.0 lbs. Subfloors with readings greater than 5.0 lbs. require corrective action to reduce the vapor emissions to 5.0 or less. The subfloor must be re-tested and readings of 5.0 or less must be obtained before installation. Alternatively, relative humidity of the slab can be tested according to ASTM F2170. A result of up to 85% is acceptable per ASTM F2170.

#### Alkalinity:

The pH range of the subfloor must be between 7-9. A pH reading above 9 will require corrective measures. Testing must be performed in accordance with ASTM Standard Practice F-170. Note: results of Moisture and pH testing must be available and submitted with any claim.

## Site **Conditions:**

Carpet tiles should not be brought to the job site until the facility (work area) is properly acclimatized, as if it were in use by the building occupants. Ambient site conditions must be between 65-85 F (18-29.5 C), and relative humidity between 40-60%. These conditions must be maintained at least 48 hours before, during, and 72 hours after the installation completion. Carpet tiles and adhesive must be acclimated to these conditions for a minimum of 48 hours before installation. If ambient conditions are outside these parameters, the installation cannot begin until the HVAC systems are operational and or the above conditions are met. Installation of carpet tiles should be the last item on the construction schedule to prevent soiling, staining, or construction damage caused by other trades that may void the product warranty. Do not cover tiles with plastic protective covering. Use plywood, Masonite, or non-staining building material paper.

# Floor Priming:

Plywood floors must be completely primed with a latex additive comparable to ParaChem's M615 or M620. This is to prevent excessive absorption of adhesive and to ensure a proper adhesive bond. Plywood substrates must be no less than ¾ inch thick. Particle board or thin plywood are not acceptable substrates.

Gypcrete Floors or substrates must be swept and vacuumed to remove excessive dust, then primed.

Concrete that is porous or dusty must be swept and primed.

Portland patching compounds and Skim coats are porous and must be primed.

## <u>Installation</u> Method

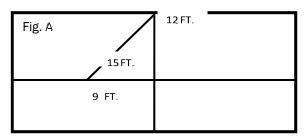
Carpet tile specifications include installation recommendations for each pattern. The recommendations include 'quarter-turn' for almost every pattern. All square tiles can be installed quarter turn. Square tiles must be installed quarter turn unless the manufacturer's specs expressly allow other methods such as 'ashlar', 'brick', or 'monolithic'. Refer to the product specifications for the manufacturer's recommended installation methods. Ultimately the owner or end user must agree with the installation method. We recommend you lay-out a small area of about 9 tiles and ask the owner to approve the installation method before installing the entire job.

# <u>Tiles</u>

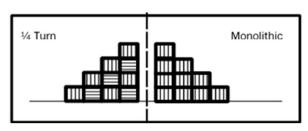
Randomizing Most patterns are made with a variety of tile types. A combination of these tile types creates a desirable appearance on the finished job. Installers should draw from 2-3 cartons at a time to ensure they randomize the location of various tile types. Certain tiles will resemble each other because of the pattern location on the tile. For best results, you should randomize tiles on the floor to distribute the different tile types. For example, putting a several 'dark' tiles adjacent to each is less attractive than distributing the 'dark' and 'light' tiles throughout the room.

## Layout:

Begin the layout by carefully marking working lines on the floor surface to act as the starting position and guide for your carpet tile installation. First, determine that your room is as square as possible: Take measurements to determine the center of the room and snap a horizontal and a vertical chalk line that intersect at the center of the room. These lines will provide a guide for squareness as you install the carpet tile, as well as divide your room into 4 manageable quadrants. It may be necessary to offset the centerline to ensure that perimeter tiles are no less than 9" (half of a tile). Position the first tile at the intersection of the horizontal and vertical layout lines, dry lay a few tiles in one of the recommended installation methods for that particular product (monolithic, quarter turn, ashlar, etc.), to give you and the customer an indication of the overall appearance. Almost all styles can be installed quarter turned. A few styles are quarter turn only or monolithic only. Some styles can be installed monolithic, quarter turned, or ashlar. For styles that can be installed in different methods it is recommended that four to six tiles be laid out in each method and a decision made as to which method the tiles should be installed in. If there are any questions regarding acceptable installation methods refer to product specifications which are available on manufacturers website.



To verify that the working lines are square with each other measure 12' from the center point up the vertical length and make a mark. On the same horizontal quadrant line measure 9' across the width and make a mark, the diagonal measurement between the two marks should be exactly 15' if your lines are square. If your measurement is not 15' adjust your lines accordingly (see fig. A).

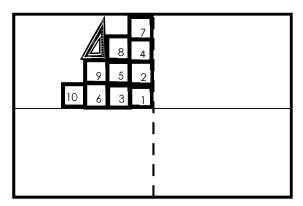


The diagram shows quarter turn and monolithic installation methods: For the monolithic method all backing arrows should point in the same direction. For the quarter turned method the backing arrows should be at a ninety degree angle to each other with all vertical arrows pointing in the same direction and all horizontal arrows pointing in the same direction at a ninety degree angle to the vertical arrows.

## Applying Adhesive:

Use premium pressure sensitive adhesives that are approved for use on Enhanced Bitumen carpet tiles by the adhesive manufacturer. The subfloor should be scraped clean of old adhesive, and thoroughly swept before applying adhesive. The adhesive should be spread in one quadrant at a time, and should be spread only over areas that you will install in the current day

The full spread adhesive application is required. Follow adhesive manufacturer recommendations for open time, spread rate, application method etc. The entire area should be covered with adhesive. Drying times will vary based on local conditions but can be greatly reduced by using circulating fans.



Installation Once the adhesive properly sets up place the first four tiles carefully along the intersection of your first quadrant, stair stepping each tile as you go (see fig. B). This pyramid technique keeps the entire layout square and in reference to the chalk lines. Slide each tile into position from the side to prevent trapping yarn. Trapped yarn will affect the appearance of the installation and cause alignment problems. Do not compress tile when installing, this will cause peaking, requiring reinstallation. Use a framing square to randomly check squareness of installation. Tiles must fit snugly but not be compressed. Check for fit by measuring the length of 10 full tiles. If individual tiles are 19.7" x 19.7" (50 cm x 50 cm) the length of 10 tiles cannot be less than 197 inches or more than 197 ½ inches.

#### **Tile Trimming:**

Carpet tiles cut well from the back. Tiles should be cut so that the trimmed edge will always be placed against the wall. Change blades often for easier, clean, precise cuts. After installation, all areas must be rolled with a roller with a maximum weight of 75 lbs. NOTE: Compressing the tile at the wall can cause edge peaking.

One method of trimming the tiles is to measure the distance between the wall and the closest installed full tile. Utilizing the measurement, mark the back of the tile to be trimmed with a pencil or pen and a straight edge or other straight object. Using a sharp blade, score the tile along the marked line and bend or break the tile. Sever the tile along the line using a sharp blade.

When trimming around doors and columns, rigid "utility type" blades often work better than more flexible slotted blades. Carpet tiles are easiest cut by scoring the back with a rigid blade, and then bending or breaking the tile. The tile can then be severed with a sharp blade.

Warning: This product contains a chemical known to the State of California to cause cancer.