

Installation Guidelines

FreLock Tabs 3x3 & 3x10 with Infinity, Infinity RE, Infinity 2, & Infinity 2 MG Modular Carpet Tile Installation Guidelines

GENERAL INFORMATION

Mannington's FreLock Tabs provide an alternative to conventional pressure sensitive adhesive and wet glue without odor or the need for typical adhesive drying or set up times, both of which can be important advantages when installing in an occupied environment. FreLock Tabs are thin, double-face adhesive connectors for installing Mannington Infinity vinyl backed carpet tile. FreLock Tabs can offer additional flexibility with two approaches to creating a stable installation of Infinity carpet tile.

Mannington adheres to basics of the Carpet and Rug Institute's (CRI) Installation Standard, which offers general minimum requirements. In addition to the minimums for CRI, our Infinity Modular Installation Instructions must be used in conjunction with the details explained in this guide when planning an installation of Infinity carpet tile with FreLock Tabs.

ESSENTIAL FIRST STEPS

- **Suitability.** FreLock Tabs are **not intended** for areas with heavy rolling traffic. FreLock Tabs are **not appropriate** for use under chairs, on stairs, ramps, or incline surfaces, which require a full spread of adhesive to prevent shifting. (See Infinity Installation Guide for more detail).
- **Modular only.** FreLock Tabs are designed for use only with Infinity, Infinity RE, Infinity 2, and Infinity 2 MG carpet tile and should not be used with any other Mannington product.
- **Check style and color.** Upon receiving carpet tile, installation contractor should visually confirm all styles and color are correct for the project.
- **Confirm layout.** Each style of Mannington carpet tile will have a recommended layout or method for installation that will be specific to that style. Whether the layout is Monolithic, Horizontal Brick Ashlar, Vertical Ashlar, or Quarter-turn, the recommended layout will be listed on the specification sheet or architect folder brochure.
- **Site conditions.** Maintain temperature at 60-85°F with ambient humidity between 40-60% for 48-72 hours before, during installation and at least 48-72 hours after installation. Maintain temperature between 55-90°F for product life.
- **Material conditioning.** **Carpet tiles must be allowed to adjust to job-site temperature for a minimum of 48 hours prior to installation.**
- **Typical layouts.** Typical installation layouts with recommended minimum placement of FreLock Tabs are illustrated on page 6 of this guide.
- **Subfloor testing.** Concrete subfloors must be tested to determine whether chemical pH and moisture emission levels are suitable.
- **Vapor retarder.** Concrete subfloors must have a suitable vapor retarder properly installed directly beneath the slab per ASTM E 1745.

MOISTURE LIMITS

All concrete slabs must be tested for moisture emissions prior to installation and must be acceptable with backing moisture levels below. Relative Humidity, ASTM F 2170 (preferred test method) or Calcium Chloride, ASTM F 1869.

Installation Guidelines

Infinity / Infinity RE / Infinity 2 – Use only when concrete sub-floor is properly tested to show moisture emission rate and chemical pH are:

- $\leq 90\%$ RH
- ≤ 10 pH
- ≤ 8 lbs. MVER

Infinity 2 MG – Use only when concrete sub-floor is properly tested to show moisture emission rate and chemical pH are:

New Construction:

- $\leq 99\%$ RH
- ≤ 12 pH
- MVER not applicable with this backing when installed with FreLock Tabs.

Renovation:

- $\leq 95\%$ RH
- ≤ 10 pH
- MVER not applicable with this backing when installed with FreLock Tabs.

SUBFLOOR PREPARATIONS

Careful subfloor preparation is vital for an excellent floor appearance and good adhesion. The subfloor must be smooth, firm, flat, clean, dry, free from defects, and fit for purpose. A suitable smoothing compound should be used to ensure that no irregularities show through to the surface of the finished floor. In all cases, the subfloor must meet the moisture and pH requirements before installation.

For porous subfloors (concrete or wood) that have a high pH and/or need a primer, use **Mannington's Universal Primer**.

Mannington's Universal Primer is an acrylic latex solution made to neutralize excess alkali and is also recommended as a primer to prevent over absorption of adhesive to ensure a better bond. Gypsum topped or patched areas must receive a full application of Mannington's Universal Floor Primer as well as any subfloor that is porous, gritty, chalky, or dusty. Porous subfloors with chemical pH above 9 may require a second application.

Mannington's Universal Primer can be applied by pouring directly on the subfloor and spreading evenly with a broom or paint roller. Primer can also be applied with a garden sprayer, airless rig, or similar spray equipment. Allow the primer to dry completely prior to second application or before applying adhesive. Primer is dry if there is no transfer when touched. Coverage is approximately 350-400 sq. ft. per gallon. **Note: Do not use primer with epoxy or urethane adhesives.**

CONCRETE

Before proceeding with installation on any concrete subfloor, please make sure:

- Levelness and finish meets or exceeds American Concrete Institute standards, ACI 301.
- Moisture and alkalinity levels meet requirements as detailed earlier.
- Curing compounds are mechanically removed. Many concrete curing agents can prevent adhesives or sealers from forming a proper bond, especially those with silicate compounds.
- Chemical agents are avoided for removal of curing compounds or old adhesives.
- Portland cement-based compounds are always used and mixed according to manufacturer's instructions when patching cracks and holes, and when leveling is required.
- Gypsum-based patching compounds are always avoided.

Installation Guidelines

OTHER SUBFLOOR TYPES

Any subfloor surface must be smooth, level, clean, and secure prior to installing Mannington floor covering products.

- **Wood.** Wood floors must be smooth and level. If floor is uneven, an approved underlayment may be required. Plywood sheets must be solid and secure. Plywood seams may need to be sanded smooth. Dust must be thoroughly vacuumed. Fire-retardant plywood is not recommended.
- **Plank floors.** Plank floors should be covered with plywood as detailed above as stable, flat, and suitable for installation.
- **Terrazzo / Marble.** Level all grout lines with a latex based Portland cement patching compound. Glossy surfaces must be sanded for adhesive bond.
- **VCT.** Tiles must be well secured to the floor or removed. Broken, damaged, or loose tiles must be replaced. Wax must be removed from VCT before applying adhesive.
- **Sheet vinyl.** Must be well secured, consist of a single layer, free of contaminants, not foam backed, not perimeter fastened or loose laid, and no asphalt-based adhesive.
- **Existing carpet.** Unsuitable substrate for new installation. Should be removed prior to installation. Any existing adhesive should be addressed as described here.

EXISTING ADHESIVES

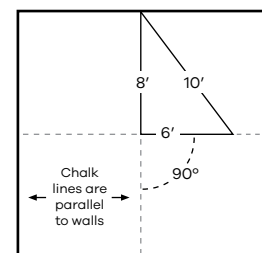
As a rule, for any new installation, existing adhesives from previous installations should always be scraped flat and thoroughly encapsulated with a Latex Portland Based Patch or Mannington Assure. Otherwise, an adverse reaction could occur, voiding applicable warranty coverage and leading to installation or product failure.

- **Multi-purpose/pressure sensitive.** Use one of the following methods to prevent possible reaction between the existing adhesive and the new installation:
 - Scrape adhesive flat and encapsulate with Mannington Assure.
 - Thoroughly remove existing adhesive, sand away remaining residue, and then skim coat with a Portland cement-based patching compound.
- **Cutback.** Existing cutback adhesive must be thoroughly removed and fully encapsulated to prevent possibility of irreversible product damage, installation failure, and voiding Mannington's warranty coverage. Wet with a mixture of water and a small amount of liquid soap. Allow to soak for several minutes before scraping away adhesive. Encapsulate any remaining trace of adhesive residue with Mannington Assure.

INSTALLING - INFINITY / INFINITY RE / INFINITY 2 / INFINITY 2 MG MODULAR

A proper start is essential to keeping a carpet tile installation tight and square throughout the installation. Please pay careful attention to these basics:

- **Establish center point.** Measure area to receive carpet and determine a center starting position by measuring from dominant walls or similar architectural features.
- **Adjust for cuts.** Initial placement of the center point may need to shift slightly to make sure perimeter tile cuts are at least half the tile's width (Example: 12" on a 24" x 24" tile).
- **Set perpendicular lines.** Establish two chalk lines that cross at adjusted central point and intersect at right angles. The base line should be the longest measurement in a rectangular area and parallel to a wall or architectural break point. Having four equal quadrants with perpendicular lines at the right angles will provide an essential guide to anchor the first tiles, to help keep the installation square, and to fit tile backings tightly together.
- **Establish a grid.** Keeping the installation tight and square requires creating a grid by establishing two perpendicular chalk lines, calculated at right angles on the area's center point, and then by anchoring first tiles installed snug against the two chalk lines. The two lines intersect to form a right angle and are "square" when two points, one at 8' vertically and one at 6' horizontally from center point, are exactly 10' apart. Use the 3', 4', and 5' formula as described above to set perpendicular chalk lines in smaller areas.



Installation Guidelines

INSTALLING - INFINITY / INFINITY RE / INFINITYE 2 / INFINITY 2 MG WITH FRELOCK TABS

When planning an installation using FreLock Tabs with Mannington's Infinity carpet tile, the following steps are essential for a successful installation with full warranty coverage.

- **Coverage rates.** Coverage rates for FreLock Tabs will vary depending on installation layout and a variety of other factors detailed in this guide. The following are approximate coverage rates and will vary by installation method. See page 6 for coverage details.
 - 3x3 FreLock Tabs approximately 100 sq. yds. per roll
 - 3x10 FreLock Tabs approximately 40 sq. yds. per roll
- **Placement and frequency.** Circumstances and/or site conditions may require heavier application or additional FreLock Tabs to prevent shifting. Suggested carpet tile layouts with FreLock Tabs placement are illustrated on page 6 of this guide. As a basic minimum guideline for number and placement of adhesive connectors, FreLock Tabs should be:
 1. Applied at every intersection of four tile corners in Monolithic and Quarter-Turn installations where all four tile corners meet consistently.
 2. Positioned to secure as many tile corners as possible when an installation calls for tiles to be offset or staggered as with Horizontal Brick Ashlar, Vertical Ashlar, and Herringbone layouts. That means roughly half of the adhesive area of a FreLock connector will secure two tile corners with the center of an adjoining tile.
 3. Placed so that adhesive area is shared in equal proportions by an abutting tile whenever possible.
 4. Used more heavily to secure cuts or perimeter tiles.
- **Start square.** Establish square layout with perpendicular chalk lines to create four quadrants and anchor rows as detailed earlier.
- **Perimeter tiles.** Perimeter tiles help lock in an installation and should be cut net to the wall or a similar termination point. However, when the wall doesn't extend fully to the subfloor surface perimeter cuts should be fully adhered with Infinity adhesive applied at the same rate detailed earlier for standard installation.
- **Roll.** Once the installation of an area is complete, use a 75-100 lb. roller to assure Infinity carpet tiles are locked together and making full contact with each FreLock tab.

ADHERE TO SUBFLOOR INSTALLATION

When installing Infinity Modular using FreLock Tabs, the pressure sensitive adhesive sections can be used to connect each carpet tile and then further stabilize the installation by adhering FreLock Tabs directly to the subfloor in the following manner:

- **Primer.** Mannington Universal Primer is required with double stick method on porous substrates.
- **Tear.** Once the first tile is positioned at the center of the room, with two sides flush along perpendicular chalk-lines set to keep the layout square and tight, tear a perforated FreLock tab from the roll to begin securing tile to subfloor in standard stair-step fashion.
- **Position.** Lift tile corner where four tiles corners will meet so that the FreLock Tab can be positioned to provide equal coverage for all four tiles.
- **Stick.** The exposed adhesive layer (rolled inward for protection on each roll of FreLock Tabs) is applied directly onto the clean, dry subfloor.
- **Peel.** Peel away FreLock's top protective cover, which prevents dust from affecting the adhesive's grab strength and is 1/4" wider than the adhesive strip to allow easy removal.
- **Stick.** Place Infinity carpet tile corner onto the exposed FreLock Tabs adhesive surface to secure the tile layout to the subfloor.

Installation Guidelines

FREE FLOATING INSTALLATION

In some end-use applications, when traffic load permits, the protective cover can be left intact on the outer adhesive layer to create a free-floating installation. When a free-floating installation is appropriate, the following are two important variations on earlier installation details:

- **Protective covering intact.** The easy-peel cover, which protects the adhesive layer on the outside of each roll, must be left intact and facing downward to prevent the adhesive connector from bonding with the subfloor.
- **Exposed adhesive layer.** By flipping FreLock Tabs with the easy-peel protective covering subfloor-side down, the inner adhesive layer, exposed as each connector is pulled from the roll, is positioned adhesive up to form a bond with each tile backing and form a laterally stable installation.

PLAN AHEAD

To help assure a successful project and prevent unexpected surprises, the following are also important steps to consider prior to installing any Infinity/Infinity RE/Infinity 2/Infinity 2 MG carpet tile:

- **Sequencing.** The most uniform installation will be obtained by planning and sequencing carpet tiles in the order they were manufactured. Sequencing can be easily accomplished. Select pallets by numbers located on each carton of tiles starting with the lowest numbers first and progressing lowest to highest numbers. Each pallet should have tile cartons with a similar range of numbers.
- **Packaging.** Mannington's 24" x 24" and 12" x 48" carpet tiles are packaged 14 tiles, 6.22 sq. yds. per unit. The 18" x 36" tiles are packaged 12 tiles or 6 sq. yds. per unit.
- **Accessibility.** Carpet tile provides easy accessibility to the subfloor and flat-wire or cable trenches. Flat-wire should be centered underneath modules.

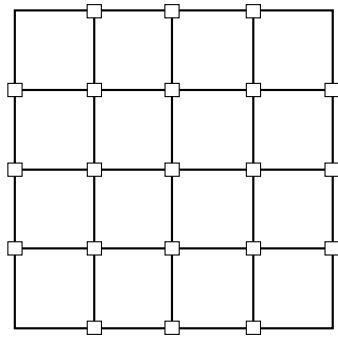
TILE LAYOUT

Mannington carpet tile may have a specific recommended installation method. Refer to brochure inside architect folder or website for installation recommendations. Please note that all patterns and colors may not be aesthetically acceptable with certain installation methods. Mannington evaluates each product and recommends the installation method for the best aesthetics. A mock up area is recommended for review before selection of an alternate method. Mannington cannot be responsible for seam aesthetics if the installation deviates from the recommend layout for a style.

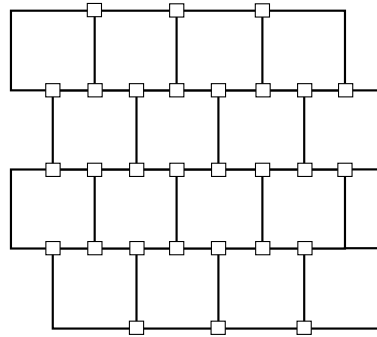
Installation Guidelines

FRELOCK TAB PLACEMENT

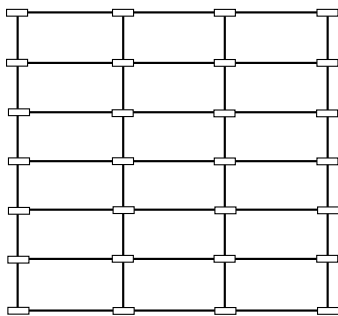
The following diagrams illustrate typical, minimum FreLock Tabs placement with various installation layouts of 24" x 24", 18" x 36", and 12" x 48" Infinity carpet tile. Make sure to always use the installation layout recommended for the specific carpet style being installed. Additional FreLock Tabs may necessary if traffic causes lifting or shifting of carpet tiles.



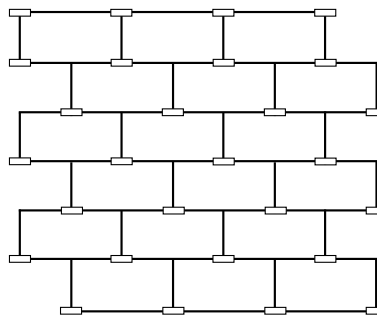
24" x 24", Monolithic or Quarter-turn
3x3 Tabs, 150 sq. yds. per roll



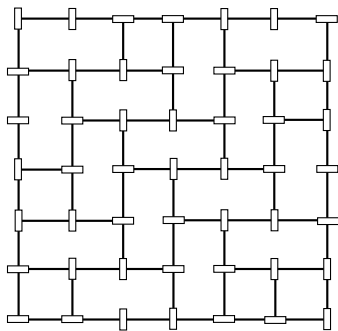
24" x 24", Horizontal Brick Ashlar
3x3 Tabs, 100 sq. yds. per roll



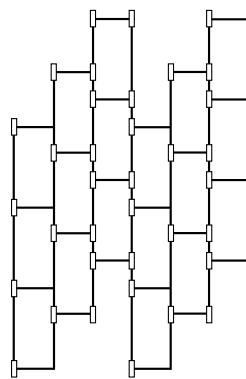
18" x 36" or 12" x 48", Monolithic
3x10 Tabs, 30-35 sq. yds. per roll



18" x 36" or 12" x 48", Horizontal Brick Ashlar
3x10 Tabs, 25-30 sq. yds. per roll



18" x 36" or 12" x 48", Herringbone
3x10 Tabs, 25-30 sq. yds. per roll



18" x 36" or 12" x 48", 3 Step Vertical Ashlar
3x10 Tabs, 25-30 sq. yds. per roll

Installation Guidelines

TRANSITIONS

All carpet products must be properly protected when transitioning to other floor covering or exposed stopping points. The use of a transition molding or protective strip covering the carpet edge at 1/2" is required. If a transition cannot be utilized the carpet nap must be level or slightly below the adjacent floor. The carpet edge must be fully seam sealed to protect from raveling or damage.

PRODUCT INSTALLATION

Ideally, carpet should always be installed last in any construction or renovation project. The completed installation should be protected as finish trades complete the project, during customer move-in, or when heavy rolling carts are used.

- **Craft paper.** Bonded-craft paper will protect the completed installation from construction dirt and spills while allowing floor covering primers, sealers, or adhesives to cure properly.
- **Avoid plastic sheeting.** Never use plastic sheeting to protect any installation.
- **Avoid sticky coverings.** Protective coverings with pre-applied adhesive or tackifiers can leave a sticky residue on the carpet face, cause rapid soiling, and should not be used.
- **Heavy rolling carts.** Masonite or plywood should be used in traffic lanes to prevent tile from shifting any time furniture is moved.

AFTER INSTALLATION

As the customer begins to enjoy their new installation of Mannington Carpet Tile, please also note the following.

- Roll entire job with a 75-100 lb. roller.
- When loop pile carpet is cut into tile, some loops on tile edges will be cut in half. Vacuuming and routine use will expose those cut yarns that remained compressed and hidden during manufacturing or installation. This blossoming is easily remedied by clipping stray fiber exposed along tile edges.
- Some carpet styles require more attention from the installers during installation. Due to the light row, dark row construction of these products, dark lines may appear at the edges. **This is not a manufacturing defect.** These products will require shifting tiles around to avoid dark lines at the edges.
- On occasion, it may be necessary to replace damaged or heavily soiled modules. Modules can be replaced with new Mannington tiles from on-site inventory or from another area of the installation. A difference of appearance may be noticed when modules are replaced; this difference usually diminishes in a short time.
- Carpet module seams are usually noticeable on a new installation and do not typically have a seamless appearance like broadloom carpet. They are die cut from the face, which can create small gaps at the seams. Pile crush can occur from the bottom to the top of the pallets and may appear to have a color shade variance from tile to tile. Both conditions will improve considerably after a "walk-in" period. This allows the yarn to acclimate and respond to the crush from the stacked cartons on the pallets. Normal foot traffic and regular vacuuming will also improve seam appearance.
- To facilitate seam blending the use of a seam tractor can help blend the yarn. Pile lifting, and/or wet extraction can decrease the time needed for "walk-in" acclimation.

If there are any questions or doubts about performing a successful installation of Mannington's carpet tile with Mannington's FreLock Tabs, please stop immediately and call Technical Services at 800-241-2262, Ext. 3.