

I. RECOMMENDED INSTALLATION METHODS

INTERIOR INSTALLATION			EXTERIOR INSTALLATION		
	24" x 24" x 1"			24" x 24" x 1"	
Surface	Quad Blok only	Quad Blok +Full Glue	Surface	Quad Blok only	Quad Blok +Full Glue
Concrete	OK	OK	Concrete	--NO--	OK
Asphalt	OK	OK	Asphalt	--NO--	OK
Plywood	OK	OK	Compact Gravel	--NO--	--NO--
Compact Gravel	--NO--	--NO--	Wood	--NO--	--NO--
Wood or Tile	OK	OK	Resilient Flooring	--NO--	--NO--
Resilient Flooring	OK	--NO--	Carpet	--NO--	--NO--
Carpet	OK	--NO--	Rooftops	--NO--	--NO--

II. TOOLS / MATERIALS REQUIRED

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Two tape measures - 25' and 50' 2. Chalk line - white only! 3. Saber saw (Jig saw) or band saw 4. Blades for saber saw (7-10 teeth per inch, wood type) 5. Utility knife with heavy-duty blades 6. Framing square/metal straight edge 7. Silver or gold color paint pencils 8. Standard size caulk gun 9. 4" slot blade screwdriver 10. Notched trowel -1/8" square notch 11. Safety glasses 12. 1-1/2" flexible putty knife | <ol style="list-style-type: none"> 13. Coveralls 14. Kneepads 15. Solvent-safe rubber gloves 16. Rags 17. Trash bags 18. Push broom or shop vac 19. Mineral spirits 20. Installation instructions 21. String line 22. Cutting table (shipping pallet) 23. Dustpan 24. 2-3 lb. sledge hammer or rubber mallet 25. 2'x 4' to use as tapping block 26. 75-100 pound three section floor roller |
|--|---|

III. SITE WORK

NOTE: Dimensional tolerance for tiles is +/- 1/8" in thickness and +/- 1/8" in width. From time to time during installation, it may be necessary to measure and hand select tiles to ensure course lines remain straight. Additionally, color tone and shading may vary to the extent that some hand selection is required to maintain maximum uniformity throughout the site.

A. Site Elevation

1. On grade installation - The finished installed height of the tile surface will be equal to or slightly higher than the perimeter grade but not more than 1" higher unless approved by the project engineer.

2. Above grade installation – The finished installed height of the tile surface will usually require the use of perimeter reducers to transition to floor elevation, unless installation terminates at a wall.
3. Tiles must be fully supported by the substrate. Substrate irregularities, unevenness, roughness, etc. should not be apparent after tile installation. The base should be free of depressions that would pond water.

IV. BASE OPTIONS

A. Hard Base Construction

1. Concrete Base:
 - a. Concrete base will be cast-in-place with a minimum compressive strength of 3,000 PSI after 28 days cure. The base should be free of depressions that would pond water. New concrete slabs should cure for a minimum of 28 days before installing tile.
2. Paved Asphalt Base:
 - a. Course aggregate mixtures will provide a stable base. The aggregate size best suited for the adhered system is 3/8" to 1/2". Do not use asphalt mixtures that contain a high percentage of fines, as they are not stable in hot weather and may become soft enough to allow the tiles to slide in high use areas.
 - b. The soil sub grade must be compacted with a minimum of two passes using a 10 ton vibratory roller with no soft or moving areas upon completion. The crushed stone base must also be compacted with a minimum of two passes using a 10 ton vibratory roller. The binder and wear courses of the asphalt must both meet 95% of the theoretical maximum density of the JMF (Job Mix Formula).

Total Passing Sieve	Percent by Weight
1/2"	100
3/8"	80-100
#4	45-90
#8	30-65
#50	5-25
#200	2-8
Asphalt Cement	6-8

- c. New asphalt surfaces should be allowed to cure for 28 days before the adhered tile system is laid.

GENERAL INFORMATION

- A. Tile may be installed over surfaces as listed in table above and must be level, in good condition, and clear of dirt and loose debris.
- B. Installation should not begin until all other trades are finished in the area.
- C. Areas to receive flooring should be weather tight and maintained at a minimum uniform temperature of 65° F for 48 hours before, during, and after the installation.
- D. Unpack tiles and allow them to sit in the area to be installed. Tiles and adhesive must be acclimated at a uniform room temperature for a minimum of 48 hours prior to installation.

- E. For installations requiring adhesion to concrete, moisture must be measured using the RH Relative Humidity test method per ASTM F2170 standard. Moisture content should not exceed 85% RH. If levels exceed the limitations the installation should not proceed until the situation has been corrected.
 - 1. In the event that a moisture mitigation system is required, it must conform to the ASTM F3010 Standard Practice for Two-Component Resin Based Membrane Forming Moisture Mitigation Systems for use Under Resilient Floor Coverings.
- F. For installations requiring adhesion to concrete, pH tests must be taken. If the pH is greater than 9, it must be neutralized prior to beginning the installation.

NOTE: Dimensional tolerance for tiles is +/- 1/8" in thickness and +/- 1/8" in width. From time to time during installation, it may be necessary to measure and hand select tiles to ensure that course lines remain straight. Additionally, color-tone and shading may vary to the extent that some hand selection is required to maintain maximum uniformity throughout the site.

NOTE: It is the installer's responsibility to inspect all products to insure the correct style, thickness, and color. Any moderate to severe discrepancies should be reported immediately before beginning the installation.

As with any flooring product, dry laying and full inspection of all tiles will allow for a quality installation. Tiles should be inspected from several angles and adjusted as necessary.

I. SITE LAYOUT

- G. Sweep area clear of all dust and loose debris.

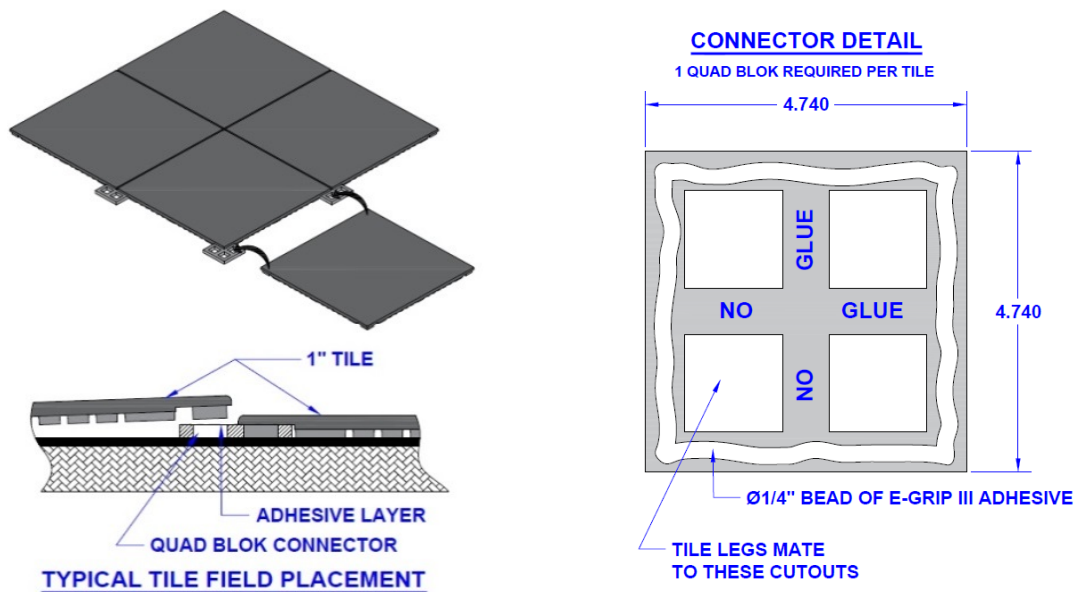
Determine a starting point for the first course of tile to best suit the site area. For irregular site configurations, the best starting point is often in the center. This will ensure a symmetrical finish for tiles that require trimming along the perimeter. Other installations are best started in the corner or along one edge that represents the length or width dimension of the site.
- H. **It is important to start the installation from a perfectly straight line or attached channel or timber.**
- I. Mark two points on the base surface at an equal distance from the edge of the installation. These points should be located near the opposite ends of the site in the length-wise direction.
- J. Snap a chalk line through the established points.
- K. Measure the length of the site along the chalk line. Mark a point at half the distance of the site.
- L. Using the 3-4-5 right triangle method, snap a chalk line to form a 90° angle to the previously established length-wise chalk line. These perpendicular reference lines will serve as a guide for laying the first course of tile. A channel or timber may be secured to the substrate to help keep the tiles snug during the installation process.

QUAD BLOK INSTALLATION (ALWAYS Required)

- A. Follow the Site Layout instructions to prepare the area for the installation of the 1" tiles.
- B. Once chalk lines are established, place the first tile at the intersection of two chalk lines, aligning adjacent edges of the tile with the chalk lines.
- C. Apply a continuous 1/4" diameter bead of E-Grip III adhesive around the perimeter of the Quad Blok connectors. Working adhesive time is dependent upon environmental conditions. See NO GLUE zones in Connector Detail drawing below.
- D. Fit the first tile with four prepared Quad Blok connectors by lifting each tile corner slightly, sliding the connectors under each corner and engaging the four corner legs of each tile with the respective apertures in the Quad Blok. Continue to sequentially lay the tile and to set the Quad Blok connectors along one chalk line until the first course of tile is complete.

NOTE: Cut the Quad Blok connectors in half to secure perimeter tiles

- E. Complete the other three quadrants in a similar fashion.
- F. Roll with a 75–100 pound flooring roller after gluing tiles into Quad Bloks. Roll again 1 hour later.
- G. Allow 24 hours for adhesive to cure before opening area for foot traffic, 48 hours for heavy loads and 72 hours before placing equipment.
- H. One 10.1 ounce tube of E-Grip III is required for approx. 15 of the Quad Bloks.



Note: Adhesive spills must be removed while still wet. Use a dry rag to pick up the majority of the adhesive. Wipe the remaining residue with a rag dampened with mineral spirits, followed by a rag damp with water to remove the mineral spirits. Cured adhesive can only be removed from surfaces by mechanical means, such as scraping or sanding.

II. FITTING AND CUTTING THE OUTER TILE COURSE

- A. In most wall-to-wall installations, the tiles in the outer course will have to be cut to fit. Tile may be cut using a heavy-duty utility or carpet knife and a straight edge. A saber saw utilizing a 7-10 TPI wood cutting blade also works well. A saw with a 3-3.5 amp rated motor having a 1" stroke with variable orbital settings will produce the best results. A cutting table used to support the work is required during cutting. A standard shipping pallet works well for this purpose.
- B. DO NOT leave a cut edge of a tile exposed to foot traffic. Any tile edge that has its factory molded, radius edge removed for any reason should have its cut edge protected using a 1" masonry or timber edging, unless that edge is to be placed against a wall or other vertical member.
- C. Cut tile's surface with a heavy-duty utility or carpet knife and a straight edge for neatness. Complete cut with a saber saw utilizing a 7-10 TPI wood cutting blade, especially for radius or free-form cuts. A saw with a 3-3.5 amp rated motor having a 1" stroke with variable orbital setting will produce the best results. Use a cutting table to support the work; a standard shipping pallet works well,
- D. If the tile is being installed wall-to-wall, the perimeter tiles **are also** installed with Quad Bloks connecting the perimeter tiles to the interior tiles, with the walls serving to contain the perimeter row of tile. Any perimeter tiles that are not contained by walls, such as at a doorway, or in a free-standing or "area rug" configuration, should be adhered to the substrate. Ramps will be adhered as well, and provide a transition from the tile to the original floor level. The perimeter tiles and ramps must be adhered using Ecore's E-Grip III adhesive with a 1/8" square-notched trowel.

III. ADHERING THE OUTER TILE COURSE

- A. Ramps, and any perimeter tiles not contained by walls, should be adhered to the existing substrate using E-Grip III adhesive with a 1/8" square notched trowel. Set tiles and ramps in the adhesive bed. **NOTE: Cut the Quad Blok connectors in half to secure the outer tile course.**
- B. Once tiles are laid into the wet adhesive, roll the floor with a 75-100 pound flooring roller. Adhesive should be allowed to cure for 24 hours before walking on the tile.

IV. CUTTING TILES & RAMPS

- A. DO NOT leave a cut edge of a tile exposed to foot traffic. Any tile edge that has its factory molded, radius edge removed for any reason should have its cut edge protected using a 1" masonry or timber edging, unless that edge is to be placed against a wall or other vertical member.
- B. Cut tile's surface with a heavy-duty utility or carpet knife and a straight edge for neatness. Complete cut with a saber saw utilizing a 7-10 TPI wood cutting blade, especially for radius or free-form cuts. A saw with a 3-3.5 amp rated motor having a 1" stroke with variable orbital setting will produce the best results. Use a cutting table to support the work; a standard shipping pallet works well,

V. INSTALLATION – RAMPS & TRANSITIONS

- A. Cut away any protruding Quad Blok material
- B. Sweep area clear and vacuum up all dust.
- C. Dry lay ramps and make appropriate cuts before opening the adhesive.
- D. Miter cut ramps at corners.
- E. Cut ramp's surface with a heavy-duty utility or carpet knife and a straight edge for neatness. Finish the cut with a band saw or a saber saw with 7-10 TPI wood cutting blade.

Note: The toe edge of the ADA ramp contains a wire reinforcement material. Take care not to bend the edges as it will be difficult to get ramps with bent reinforcement to lay flat.
- F. Mark the areas where adhesive is to be applied and temporarily remove the ramps.
- G. Spread the recommended E-Grip III urethane adhesive using a 1/8" square notch trowel. Do not spread more adhesive than can be covered in 30 minutes.

- H. Carefully place the ramps into the adhesive. Be sure to press down firmly to assure proper adhesive transfer to the back of ramp & roll with a 75-100 pound flooring roller.
- I. Use weight to evenly hold down the toe edge of the ramps. The entire toe edge should be weighted, and the weight should be heavy enough to prevent the edge of the ramps from lifting out of the adhesive.

Note: Adhesive spills must be removed **while still wet**. Use a dry rag to pick up the majority of the adhesive. Wipe the remaining residue with a rag dampened with mineral spirits, followed by a rag dampened with water. Cured adhesive can only be removed from surfaces by mechanical means, such as scraping or sanding.

- J. After 24 hours, remove the weight from the ramps.
- K. Clean and maintain the area in accordance with the instructions in the Maintenance Section below.

VI. FULLY ADHERED INSTALLATION – Mandatory for exterior installations

- A. Follow the site layout instructions to prepare the site area for installation. The tiles, accessories, and substrates should be weather tight and maintained at a minimum uniform temperature of 65°F (18°C) for 48 hours before, during, and after the installation.
NOTE: Dimensional tolerance for tiles is +/- 1/8" in thickness and +/- 1/8" in width. From time to time during installation, it may be necessary to measure and hand select tiles to ensure that course lines remain straight. Additionally, color tone and shading may vary to the extent that some hand selection is required to maintain maximum uniformity throughout the site.

As with any flooring product, dry laying and full inspection of all tiles will allow for a quality installation. Tiles should be inspected from several angles and adjusted as necessary.

NOTE: It is the installer's responsibility to inspect all products to insure the correct style, thickness, and color. Any moderate to severe discrepancies should be reported immediately before beginning the installation.

NOTE: Use a 1/8" square notch trowel. Coverage rates for the E-Grip III adhesive are approximately 60 square foot per gallon using a 1/8" square notch trowel.

- B. For an interior installation, moisture must be measured using the RH Relative Humidity test method per ASTM F2170 standard. Moisture content should not exceed 85% RH. If the levels exceed the limitations, the installation should not proceed until the situation has been corrected.
 - 1. In the event that a moisture mitigation system is required, it must conform to the ASTM F3010 Standard Practice for Two-Component Resin Based Membrane Forming Moisture Mitigation Systems for use Under Resilient Floor Coverings.
- C. It is essential that pH tests be taken on all concrete floors. If the pH is greater than 9, it must be neutralized prior to beginning the installation.
- D. Using a 1/8" square notch trowel, apply the E-Grip III adhesive out slightly wider than the tile being placed. Do not spread more adhesive than can be covered in 30 minutes.
- E. **Quad Bloks must be used and installed per Quad Blok installation section above.**
- F. Place tiles with Quad Bloks into the fresh adhesive bed following pre-established course lines. If applicable, place ramps into the fresh adhesive in a similar manner.

- G. After placing tiles into adhesive bed, roll the tiles with a 75 pound three section flooring roller to ensure adhesive transfer to the bottom of the tile feet.
- H. Adhesive should be allowed to cure for 24 hours before allowing foot traffic. All heavy traffic and/or light rolling loads should be avoided for a minimum of 72 hours after installation to allow adhesive to develop strength. In cases where 72 hours is not possible, it is recommended to cover the floor with a rigid covering such as ½" plywood sheeting with a fully sanded face against the surface of the tiles.
- I. Tile cuts are typically laid out by referencing dimensions from the edges of the tiles, already in position, to a wall or other obstruction along or around which the tiles are to fit. These dimensions are then transferred to and laid out on the tile to be cut.
- J. Install ramps per "INSTALLATION – RAMPS and Transitions" section above.



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