

TREND ORIGINA® TERRAZZO TILE INSTALLATION



CAUTION: Protect TREND Origina® Terrazzo Floors

Never allow heavy objects to travel across non-grouted or newly installed TREND Origina® Floors. Allow all post grouted installations 48 hours, or duration of time recommended by installation material manufactures, prior to traffic. If adhesive or grout manufactures recommend more than one cure time the longest duration of time shall prevail. After 48 hours cover floor with non- asphalt impregnated construction paper, or similar floor protection system, prior to traffic. Allow 7 days after grouting and protect the new floor from rolling loads by placing 1/2" exterior grade plywood over the protective paper, or similar material, in the path of light equipment, such as, small scissor lifts and pallet jacks. Even with plywood no extremely heavy equipment, such as, heavily loaded forklifts shall ever travel across TREND Origina® flooring. The environment, quantity and type of traffic a floor endures will determine how often and to what depth of cleaning process is required to maintain an Origina® Terrazzo floor. Steel wheels shall never be rolled over terrazzo flooring.

1 General Requirements

1.1 Contractor/installer shall inspect the installation surfaces and report any known unsatisfactory conditions in writing to the general contractor, project architect or owner for corrections prior to beginning tile installation.

1.2 Not all membranes are recommended for use under Terrazzo tiles. They may be too deformable and/or not support heavy rolling or point load. Mortar curing may be slightly longer over membranes and require additional time to traffic. Consult membrane manufactures regarding the appropriate use of their products with terrazzo tiles.

1.3 The building's owner or owner's representatives are responsible to determine if TREND Terrazzo tiles meet the requirements of each installation environment.

1.4 TREND Terrazzo tiles shall not be used in areas where heavy equipment or steel wheels will be rolled across the surface without appropriate protection.

1.5 Store Terrazzo tiles, and all associated installation materials, in protected, temperate environments out of direct sun, rain, freezing conditions, water, high humidity, wind and dust. Terrazzo tiles shall be acclimated in an installation environment of between 60 - 80°F (15.5 - 26.6°C) for a minimum of 24 hours prior to installation. All tiles shall remain flat prior to installation.

1.6 If you receive terrazzo tiles on the job site that appear warped don't worry, this can happen during transport. TREND Terrazzo tiles are flexible and very easy to re-flatten. To re-flatten tiles place 10 -20 terrazzo tiles face down on top of a 1/4" thick strip of wood at 1" from the edge around the entire perimeter of the bottom tile then place 25 - 50 pounds of weight on the top of the tile for 12 - 24 hours. The degree of warpage and quantity of tile will determine the amount of weight and duration of time needed to re-flatten the tile. Tile must be stored horizontally on a flat surface at all times.

2 Substrate Preparations

2.1 TREND Terrazzo tile installation over existing terrazzo, tile, natural stone, Formica and other finish products is both time saving and cost effective often avoiding demolition and expensive substrate preparation as long as the existing surfaces are structurally sound and free from any contaminants that may inhibit bond. Contaminants, such as, oils, grease, dust, paint, sealers, floor finishes, curing compounds, etc... must be removed or mechanically scarified. Mechanically scarified concrete surfaces must render a concrete surface profile of CSP 2-3 similar to a light broom finish as defined by International Concrete Repair Institute (ICRI) Guideline No. 03732. Substrates must support minimum adhesion strength of 150 psi (1 MPa) when tested per ASTM D-4541 tensile bond test. Alternatively, use a bonding primer such as CUSTOM® MBP-Multi Surface Bonding Primer. Substrate temperature shall be a minimum of 60°F (15.5°C) with ambient temperatures maintained between 60 - 80°F (15.5 - 26.6°C) and adequate ventilation.

2.2 At the time of installing TREND Origina® Terrazzo Tiles concrete moisture vapor emission rates (MVER) shall be 4 pounds or less per 1,000 Sq/Ft in 24 hours using test method ASTM 1869-04. Alternatively, 85% or less relative humidity using ASTM test method F2170-18 is also acceptable. The use of a moisture barrier sub-floor primer may be necessary. Contact the recommended adhesive manufactures for specific substrate moisture requirements for the use of their products.

2.3 Thin-Set

For direct installation on a concrete sub-floor without the use of a mortar bed, except for self-leveling products, the maximum allowable variation in the substrate for tile with all its edges shorter than 15", the maximum allowable variation is 1/4" in 10' from the required plane, with no more than 1/16" variation in 12" when measured from the high points in the surface. For tiles that have at least one edge 15" in length or longer the maximum allowable variation of the surface to receive Tile is 1/8" in 10' from the required plane, with no more than 1/16" variation in 24" when measured from the high points in the surface per ANSI A 108.5. See "Leveling the sub-floor".

2.4 Mortar Beds

Cement mortar beds shall be prepared according to ANSI A108.1 B cured 7 days or more, dry, clean and level with no visible signs of shrinking before starting installation. Or use a rapid-curing mortar bed such as CUSTOM® SpeedSlope® Rapid Setting Sloping Mortar. A bonded cement mortar bed must be at least 3/4" thick. All other mortar beds require the use of reinforcing mesh per ANSI A 108.1

2.5 Leveling Sub-Floor

If the sub-floor is not level per above requirement, the use of a self-leveling product may be necessary before installation. The work of the installers will be faster and more accurate using self-leveling products, such as: CUSTOM® LevelQuick® RS Self Leveling Underlayment or TechLevel 150, Mapei, Ultraplan 1, or Novoplan 2 (for improved adhesion of the underlayment you can use Ultraprime L), or from Laticrete, Laticrete 86 self-leveling, or Laticrete 86 Latilevel, with Laticrete admix and primer. If the sub-floor requires a moisture barrier, then apply patching and leveling over the cured vapor barrier coating.

3 Bond Coats - Adhesives

3.1 Recommended adhesives:

- Custom Building Products EBMLITETM PREMIUM EPOXY BONDING MORTAR 100% SOLIDS
- Custom Building Products MegaLite® RS Ultimate Rapid Setting Crack Prevention Large Format Tile Mortar
- Custom Building Products ProLite® RS Premium Large Format Tile Mortar
- Custom Bulding Products Porcelain Tile Professional Thin-Set Mortar
- Laticrete Latapoxy 300 Adhesive • Laticrete 254R Platinum Rapid
- MAPEI GraniRapid System
- MAPEI Kerapoxy 410
- Schluter Fast-Set (For use over Ditra and Kerdi Membranes)

3.2 Mix all adhesives according to manufacture directions

4 TREND Terrazzo Tile Installation

4.1 For cement based thin-set installations clean substrates and panel backs using a clean, lightly damp sponge prior to thin-set application to substrates and tile.

4.2 For epoxy adhesives use a soft, fine bristle broom to clean the substrate and tile back prior to adhesive application; if water used to prepare substrates and tiles for epoxy installation take care to assure the substrate and tile backs are completely dry prior to applying epoxy adhesive.

4.3 Apply an initiation coat to the substrate and tile back using the flat side of a trowel and sufficient force to make complete 100% coverage.

4.4 Apply adhesive using a range of notched trowels from a 3/8" depth x 1/4" wide up to 1/2" x 1/2" notch trowel depending on substrate finish, flatness, plane or plumb.

Note: The flatter the substrate the smaller the notch trowel you can use to achieve the required 100% adhesive/tile bond.

Apply full notches of same depth in one direction to the substrate approximately 1"-2" beyond tile placement. Apply a fresh back butter coat of adhesive of approximately 1/8" minimum to the tile back prior to pushing tile into the notched adhesive followed by moving the tile slightly back and forth perpendicular to the horizontal notches to imbed the tile into the adhesive. For tiles 24" x 24" and larger, being careful to avoid walking on the edges, slowly walk to the center of the tile, place your feet flat on the surface and move in a hula hoop style fashion. Move from the tile's center slowly in each direction avoiding stepping on the outer edges of the tile and continue oscillating every 8" to 10" until the tile is set.

Note: A more or less heavy person may be needed to deliver optimal force to imbed tile. The use of tile leveling devices, such as, Miracle Sealants Levolution work well to facilitate smooth transitions from tile to tile. Do not over torque leveling devices as this can cause damage to Terrazzo tiles and panels. Please consult leveling device manufactures for specific use. For Origina® Panels larger than 24" x 24" please refer to the TREND Origina® Panel Installation Guide.

4.5 Remove excess adhesive making sure to clean grout/movement joints and surrounding areas as you go along. Thin-sets and epoxy adhesives may not clean off tile if left on the tile's surface for more than 10 - 15 minutes.

4.6 Allow installation to cure 24 hours or more prior to grouting.

5 Sealing

5.1 Sealing terrazzo polished tiles with Slip Doctor PolishGrip or StoneGrip or using prior to installation can be beneficial to protect the terrazzo panels against damage from installation processes, oils and other harmful contaminants. Sealing polished terrazzo panels with these Slip Doctor products can also elevate the anti-slip properties, DCOF and SCOF values.

5.2 Honed terrazzo panels must be sealed prior to installation using Aqua Mix® Sealers Choice® Gold, StoneTech Bullet Proof Sealer, Miracle Sealants 511 Impregnator or, for a deeper luster and slightly darker color, use Aqua Mix® Enrich 'N' Seal or Miracle Sealants 511 Enhancer.

5.3 On going maintenance and sealer performance can be monitored using a certified Bott3000 test unit and operator.

6 Grout

6.1 Grouting can be accomplished using non-sanded cement grouts for all grout joints 1/8" or smaller. For best results, use a high performance Standard grade cement grout for grout joints from 1/8" to 1/2". There are single grouts which can span all of these dimensions. Epoxy and urethane grouts are available for just about every grout joint dimension; please consult grout manufactures regarding specific applications.

6.2 Mix all grouts according to manufacture directions making sure to pack grout joints full during installation; do not remove excess grout during initial cleaning. No grout or grout haze shall be left on the surface of the panels after initial grouting process.

7 Movement Provisions

7.1 Movement provisions shall be placed according to Tile Council Of North America (TCNA) recommendation EJ 171-2017 (or current year). TCNA and ANSI reference manuals may be purchased at tileusa.com.