Terrazzo & Marble Supply Companies realizes how valuable your time is. That is why you can count on T&M to be your Single Source Supplier to provide products and services for every stage of your epoxy terrazzo installation.

Our Capabilities Extend Beyond Cutting-Edge Products
Discover the benefits of Terrazzo & Marble Supply Companies helping people by providing a single source terrazzo supplier.

Dedicated Sales Force
Our architectural sales force aggressively promotes terrazzo flooring systems to the architectural and design communities and specifying organizations such as AIA, ASID, CSI and IIDA. With a long and reputable 75+ year history in the terrazzo flooring business, our industry insight is backed by practical, hands-on experience.

Knowledgeable Service Center
Whether it is sending samples to present a job design, helping to select the right material for your next project or troubleshooting potential job site pitfalls, our terrazzo sales desk is there to help you every step of the way. With one call, our service experts will provide you with the insight and solutions you are looking for to complete your project.

Industry Advocate and Leader
Helping to shape the ever-changing landscape of the terrazzo business, Terrazzo & Marble Supply is an active member of various terrazzo organizations such as NTMA, NCTA, TPC, TANS, CSTA, TTMAC, SWTA and WSTA. Through our close industry ties and proven, quality products, we are continually working to enhance the level of integrity and craftsmanship of the terrazzo trade.
# Epoxy Terrazzo Installation Matrix

<table>
<thead>
<tr>
<th>Installation Stage</th>
<th>Product Offering</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Floor Preparation</strong></td>
<td>Terroxy Moisture Vapor Treatment</td>
<td>Allows for prevention and elimination of moisture problems facing your terrazzo flooring systems.</td>
</tr>
<tr>
<td></td>
<td>Terroxy Primer</td>
<td>Promotes the adhesion of terrazzo topping to the surface of the substrate.</td>
</tr>
<tr>
<td></td>
<td>Terroxy Fill</td>
<td>For use as a leveling and patching mortar to be used under Epoxy Terrazzo. These systems are composed of economical VOC compliant epoxy resins blended with durable graded aggregates.</td>
</tr>
<tr>
<td></td>
<td>Terroxy Iso-Crack Epoxy Membrane / Acoustical Membrane</td>
<td>Provides crack resistance and noise protection for your flooring.</td>
</tr>
<tr>
<td><strong>Strip</strong></td>
<td>Aluminum Strip</td>
<td>Enhance design flexibility and functionality, separate colors and reference construction joints to preserve structural integrity.</td>
</tr>
<tr>
<td></td>
<td>Brass Strip</td>
<td>100% solids epoxy for referencing contraction (saw cuts), isolation and cold joints.</td>
</tr>
<tr>
<td></td>
<td>Zinc Strip</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Joint Filler</td>
<td></td>
</tr>
<tr>
<td><strong>Matrix</strong></td>
<td>Terroxy Resin (Part A) &amp; Terroxy Hardener (Part B)</td>
<td>The epoxy matrix binds the chips and strips in place and serves as the canvas of a floor’s design. T&amp;M’s custom tinting provides endless color options from which to choose.</td>
</tr>
<tr>
<td><strong>Chip</strong></td>
<td>Domestic Chip</td>
<td>Available in numerous colors and sizes, terrazzo chip and fill provide animation and texture to any surface. Coupled with an epoxy matrix, a floor’s design possibilities are only limited by the imagination.</td>
</tr>
<tr>
<td></td>
<td>Recycled Glass Chip</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Imported Chips</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fines</td>
<td></td>
</tr>
<tr>
<td><strong>Grouting &amp; Polishing</strong></td>
<td>T&amp;M Floor Grinders</td>
<td>Terrazzo grinding equipment and accessories for a smooth, polished finish.</td>
</tr>
<tr>
<td></td>
<td>T&amp;M Base &amp; Border Machines</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ermator Vac</td>
<td></td>
</tr>
<tr>
<td></td>
<td>T&amp;M Dry Vac 2000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E-Z Grind Diamond System</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grinding Pads &amp; Stones</td>
<td></td>
</tr>
<tr>
<td><strong>Grouting</strong></td>
<td>Terroxy Epoxy Matrix</td>
<td>Provides cosmetic enhancements to a floor’s surface after rough grinding and prior to polishing.</td>
</tr>
<tr>
<td></td>
<td>Terroxy UV Clear Resin</td>
<td>A universal, clear resin for multi-color projects.</td>
</tr>
<tr>
<td><strong>Sealing &amp; Finishing</strong></td>
<td>Accelerated &amp; Rapid Set Hardener</td>
<td>Accelerated Hardener \nFast Cure Hardener \nFaster Cure Hardener</td>
</tr>
<tr>
<td></td>
<td>T-Rx Coating</td>
<td>Enhances the luster of your chips’ color while also offering protection.</td>
</tr>
<tr>
<td></td>
<td>Terroxy Acrylic Sealer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Terroxy WB Acrylic Sealer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Terroxy WB Urethane Sealer</td>
<td></td>
</tr>
<tr>
<td><strong>Clean Up</strong></td>
<td>Terroxy Trowel Lubricant</td>
<td>This versatile substance also acts as a cleaning solution for your tools and supplies.</td>
</tr>
<tr>
<td></td>
<td>Terroxy Terra Clean</td>
<td>A neutral, pH emulsifying cleanser that will remove grout film. Also may be used as a restorer and for daily maintenance.</td>
</tr>
</tbody>
</table>

For more information on how we can help with your next terrazzo project, contact our terrazzo sales desk at 800.7.MARBLE or visit our web site at www.tmsupply.com.

- Covering all your Terrazzo Needs -
  Specialty Aggregates | Machinery | Diamond Abrasives
  Terroxy Resin Systems | Divider Strips | Dedicated Sales Force | Over 75 Years Experience
Terrazzo flooring systems provides several attractive characteristics distinguishing it from other flooring alternatives. These characteristics help to make the flooring a durable, affordable, environmentally responsible and easy-to-maintain system.

Durable

When making an investment in a building’s flooring, one of the main priorities is choosing a surface that lasts. Terrazzo flooring systems provide an ideal choice for high-traffic surfaces. Below are some facts to consider regarding terrazzo’s durability:

- **Supports Heavy Traffic** — No need to worry about cracked tile corners from heavy carts. What’s more, epoxy terrazzo is acid and stain resistant.
- **No grouting required** — Terrazzo flooring systems are seamless; there are no concerns regarding grout discoloration, maintenance or cracking.
- **Provides Permanent Adhesion** — Terrazzo is poured on the jobsite and has virtually 100% bond to the membrane and concrete under bed.
- **Easily adapts to changing environments** — any future alterations to a building’s floor can be done easily by exactly matching new epoxy to the existing color used upon installation.

Affordable

Consider the lifecycle of your typical commercial flooring. During the lifetime of a building, the total cost of flooring may exceed 35 times the initial cost. With terrazzo systems, floors will typically last the lifetime of the structure. While other systems may require additional repairs or even replacement utilizing additional valuable resources, terrazzo requires extremely low maintenance costs.

Terrazzo’s cost benefits make it the preferred flooring of many public schools, state universities, post offices and fire stations.

The table below illustrates the longevity of terrazzo in comparison to various flooring systems.

<table>
<thead>
<tr>
<th>Commercial Flooring Types</th>
<th>Cost (Per Sq. Ft. Installed)</th>
<th>Annual Cost of Maintenance (Per Sq. Ft.)</th>
<th>Initial Cost + 10 Years Maintenance</th>
<th>Replacement Cost (Per Sq. Ft.)</th>
<th>Frequency of Replacement</th>
<th>Forty Year Cost*</th>
<th>Annual Cost (Per Sq. Ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vinyl Sheet</td>
<td>$4.45</td>
<td>$1.39</td>
<td>$18.35</td>
<td>$4.45</td>
<td>10 Years</td>
<td>$77.85</td>
<td>$1.95</td>
</tr>
<tr>
<td>Carpet</td>
<td>$4.15</td>
<td>$1.53</td>
<td>$19.45</td>
<td>$4.15</td>
<td>10 Years</td>
<td>$81.95</td>
<td>$2.05</td>
</tr>
<tr>
<td>Vinyl Tile</td>
<td>$1.50</td>
<td>$1.47</td>
<td>$16.20</td>
<td>$1.50</td>
<td>10 Years</td>
<td>$66.30</td>
<td>$1.66</td>
</tr>
<tr>
<td>Porcelain Tile</td>
<td>$10.00</td>
<td>$1.22</td>
<td>$22.20</td>
<td>$0.00</td>
<td>40 Years</td>
<td>$58.80</td>
<td>$1.47</td>
</tr>
<tr>
<td>Quarry Tile</td>
<td>$9.00</td>
<td>$1.22</td>
<td>$21.20</td>
<td>$0.00</td>
<td>40 Years</td>
<td>$57.80</td>
<td>$1.45</td>
</tr>
<tr>
<td>Sand Cushion Terrazzo</td>
<td>$20.00</td>
<td>$0.65</td>
<td>$26.50</td>
<td>$0.00</td>
<td>40 Years</td>
<td>$46.00</td>
<td>$1.15</td>
</tr>
<tr>
<td>Monolithic Terrazzo</td>
<td>$16.00</td>
<td>$0.76</td>
<td>$23.60</td>
<td>$0.00</td>
<td>40 Years</td>
<td>$46.40</td>
<td>$1.16</td>
</tr>
<tr>
<td>Epoxy Terrazzo</td>
<td>$18.00</td>
<td>$0.54</td>
<td>$23.40</td>
<td>$0.00</td>
<td>40 Years</td>
<td>$39.60</td>
<td>$0.99</td>
</tr>
</tbody>
</table>

Includes Initial Cost, Replacement & Maintenance Cost

The National Terrazzo & Mosaic Association (NTMA) conducted an extensive study compiling statistics from its own membership, the Institutional Research Associates, U.S. Government Agencies, Sanitary Supply Organization and other agencies, to determine the average cost of installation, maintenance and replacement costs of various typical finishes used in hospital, schools and other institutional facilities. This survey has been updated by T&M based upon our own market experiences and customer input. (10/10)
Environmentally Responsible
Terrazzo Flooring was one of the original recycled products available, and today, terrazzo aggregates, binders and terrazzo finished flooring systems may contribute to US Green Building Council’s (USGBC) credits, under the LEED Rating System, Version 2.0.

Based upon standards set-forth by the LEED Rating System, it is important to consider several factors when analyzing the environmental impact of terrazzo systems.

• Recycled Content — May contain post-industrial and post consumer recycled glass or stone aggregate
• Local Regional Materials — Manufactured on-site which reduces waste and transportation costs
• Indoor Emitting Materials — Inorganic based binders containing no Volatile Organic Compounds (VOC’s)

Easy-To-Maintain
Terrazzo flooring systems require simple cleaning and maintenance. Daily cleaning includes rinsing the surface with a mixture of water and a pH balanced cleaner. Incorporate periodic deep cleaning and sealing into your maintenance schedule to protect against difficult to remove stains and to keep the terrazzo floor looking new.

Don’t forget the benefits of terrazzo’s local sources
Access to domestic chip, strip and epoxy suppliers reduces headaches and long lead times of international suppliers. Terrazzo suppliers like T&M provide you the materials when you need them, helping you to meet the tight deadlines of the building trade.

When making an investment in any flooring system, it is important not only to look at the upfront costs, but the overall cost of the system. Epoxy terrazzo provides a durable, affordable, environmentally responsible, easy-to-maintain system that will provide you with years of worry-free use.

Invest in your surface’s future today by selecting epoxy terrazzo. Contact T&M by phone at 800.7.MARBLE or visit our web site at www.tmsupply.com for more information.

- Covering All Your Terrazzo Needs -
Specialty Aggregates | Machinery | Diamond Abrasives | Terroxy Resin Systems | Divider Strips
Dedicated Sales Force | Over 75 Years Experience
Designing With Terrazzo

Terrazzo & Marble offers several ways to assist with the design creation of your terrazzo flooring system.

Getting Started...

The first step to any design process is to identify the color scheme for your application. Terrazzo offers unlimited options whether they are bold primary colors, neutral tones or monochromatic color schemes. Liven up your design with T&M’s special collection of exotic chip mixes including Mother of Pearl, one-sided mirror or imported Italian chips. If contributing to LEED credits is a priority, look to T&M’s various recycled chip options.

Looking for Ideas?

T&M offers several quick and easy design options. With thousands of terrazzo design mixes already created by your fellow designers, check out some of their concepts at www.tmsupply.com.

T&M Hard Sample Kit

Provides an additional 20 terrazzo design mixes including Mother of Pearl, one-sided mirror, imported Italian chips and recycled aggregates such as glass, porcelain, concrete and others. The best part... The hard sample is already created for your design board.

T&M Creative Design Mix Deck

Provides an additional 20 terrazzo design mixes including Mother of Pearl, one-sided mirror, imported Italian chips and recycled glass. Check out the terrazzo installation photos included in the deck to see these formulas in action.

Still Need More Ideas... Visit www.tmsupply.com

Under the Products tab, select Terrazzo, then search by chip or resin color to find hundreds of additional terrazzo design mixes and chip colors.

Once you identify a sample that meets the color scheme of your project, contact our terrazzo sales desk at 800.7.MARBLE and we’ll produce a hard sample of the formula for your project board.

Standard turn around for hard samples is approximately 2 weeks.
Custom Terrazzo Design Mixes

If you are unable to find the right terrazzo design mix from any of the above options, create your own. T&M offers several terrazzo chip kits and an epoxy resin fan deck including 800+ Terroxy Resin Systems Epoxy Matrix colors. If you don’t see a resin color you like, we can tint resin to match any color you desire. Our architectural sales team can work directly with you to fashion your own unique terrazzo floor arrangement.

Contact our terrazzo sales desk at 800.7.MARBLE and we will schedule an appointment with the architectural rep in your area.

Standard turn around for custom terrazzo hard samples is approximately 2 weeks.

For decades, T&M has collaborated with designers to produce scores of award winning terrazzo floor colors and patterns. Let T&M help simplify the design of your next terrazzo project.

For more information on how we can help with your next terrazzo project, contact our terrazzo sales desk at 800.7.MARBLE or visit our web site at www.tmsupply.com.
Thin Set Epoxy Terrazzo - Section 096623

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the contract, including general and supplementary conditions and division 1 Specification Sections, apply to this section.

1.02 SUMMARY

A. Section Includes:
   1. Thin-set epoxy terrazzo flooring including preparation of substrates.
   2. Thin-set precast epoxy terrazzo tread or tread & riser units.
   3. Thin-set precast epoxy terrazzo wall base units.
   4. Related accessories.

B. Related Sections:
   1. Section 03300, Cast In Place Concrete.
   2. Section 04200, Unit Masonry.
   3. Section 05510, Metal Stairs.
   4. Section 07260, Under-slab Vapor Retarder/Barrier.
   5. Section 07900, Joint Sealants.
   6. Section 09900, Painting.
   7. Section [_____] Furnishing and Setting Floor Drains.
   8. Section [_____] Setting of Metal Base Beads and Wood Grounds.
   10. Section [_____] Other Adjacent Floor Finish Trades (for Transition Details).
   11. Section [_____] For Confirmation of LEED Requirements.

1.03 SUBMITTALS

A. Manufacturer’s product data for each type of terrazzo and accessory. System will be evaluated on the basis of standards. For tests not listed in published data, manufacturer shall supply missing data according to standard referenced.
   1. Physical properties.
   2. Performance properties.
   3. Specified tests.
   5. Manufacturer’s standard warranty.

B. LEED Submittals
   1. Product Data for Credit MR 4.1: For [aggregates], indicating percentages by weight of recycled content.
      a. Include statement that indicates cost for each product having recycled content.
   2. Product Data for Credit EQ 4.1: For adhesives, including printed statement of VOC content and chemical components. Compliance with CA 01350 requirements for testing of volatile organic Emissions from Various sources using small scale environmental chamber
C. Shop Drawings. Include terrazzo installation requirements. Include plans, elevations, sections, component details and attachments to other work. Show layout of the following:

1. Divider strips.
2. Control and expansion joint strips.
4. Abrasive strips.
5. Stair treads, risers and landings.
6. Pre-cast terrazzo jointing and edge configurations including anchorage details.
7. Terrazzo patterns.
8. <Insert requirements>

D. Samples for initial selection from Terrazzo & Marble Supply color plates showing the full range of colors and patterns available for each terrazzo type indicated.

E. Samples for Verification: Match architect’s samples for each type, material, color and pattern of terrazzo and accessory required showing the full range of color, texture and pattern variations expected. Label each terrazzo sample to identify Terroxy Resin System’s matrix color and aggregate types, sizes and proportions. Prepare samples of same thickness and from same material to be used for the work in size indicated below:

1. Epoxy terrazzo: minimum 6” x 6” (152.4 mm x 152.4 mm) sample of each color and type of terrazzo.
2. Precast epoxy terrazzo: minimum 6” x 6” (152.4 mm x 152.4 mm) sample of each color and type of terrazzo.
3. Accessories: 6” length (152.4 mm) of each kind of divider strip, stop strip and control joint strip required.
4. Stair Treads: 12” length (304.8 mm) wide sample combination tread/riser with cast-in nosing.

F. Manufacturer Experience:
1. Submit proof of associate membership in NTMA.
2. Furnish a list of at least five (5) epoxy terrazzo projects using material being submitted for this project installed during the last five (5) years of the same scope, complexity and at least 50 percent of the square footage.
3. Engage an epoxy manufacturer with at least ten (10) years experience.

G. Qualification Data: For qualified installer.
1. Submit proof of contractor membership in NTMA.
2. Furnish a list of at least five (5) epoxy terrazzo projects using material being submitted for this project installed during the last five (5) years of the same scope, complexity and at least 50 percent of the square footage.

H. Material Test Reports: For moisture and/or relative humidity of substrate.

I. Maintenance Data: Submit [_____] copies of NTMA maintenance recommendations and [_____] copies of manufacturer’s instructions

1.04 QUALITY ASSURANCE

A. Installer Qualifications: A qualified installer who is acceptable to architect and epoxy terrazzo manufacturer to install manufacturer’s products.

1. Engage a terrazzo contractor with at least five (5) years of satisfactory experience in installation of epoxy terrazzo. Terrazzo contractor shall demonstrate experience during last five (5) years of at least five (5) projects of comparable scope and complexity of at least 50 percent of the total square footage of this project.
2. Engage an installer who is a contractor member of NTMA.

B. Source Limitations:

1. Obtain primary Epoxy Terrazzo Flooring System materials including moisture treatment, membranes, primers, resins and hardening agents from a single manufacturer with proof of NTMA associate membership.
2. Obtain aggregates, divider strips, sealers and cleaners from source recommended by primary materials manufacturer.
3. Engage an epoxy manufacturer with at least ten (10) years experience as a NTMA associate member.
C. Pre-installation Conference: Conduct conference at project site to comply with requirements in Section 01200 – Project Meetings. Review methods and procedures related to terrazzo including, but not limited to, the following:
   1. Inspect and discuss installation procedures, joint details, job site conditions, substrate specification, vapor barrier details and coordination with other trades.
   2. Review and finalize construction schedule and verify availability of materials, installer’s personnel, equipment and facilities needed to make progress and avoid delays.
   3. Review special terrazzo designs and patterns.
   4. Review plans for concrete curing and site drying to enable timely achievement of suitable slab moisture conditions.

D. NTMA Standards: Comply with NTMA’s “Terrazzo Specifications and Design Guide” and with written recommendations for terrazzo type indicated unless more stringent requirements are specified.

E. Mock-ups: Build mock-ups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
   1. Build mock-ups for terrazzo including accessories.
      a. Size: Minimum 100ft² (9.3m²) of typical poured-in-place flooring [and base] condition for each color and pattern [in locations directed by architect] <Insert location requirements>.
   2. Approved mockups may become part of the completed work if undisturbed at time of substantial completion.

1.05 DELIVERY, STORAGE AND HANDLING

A. Deliver materials to project site in supplier’s original wrappings and containers labeled with source’s or manufacturer’s name, material or product brand name and lot number if any.

B. Store materials in their original, undamaged packages and containers inside a well-ventilated area protected from weather, moisture, soiling, extreme temperatures and humidity.
   1. Storage temperatures should be between 50°F to 90°F (10.0°C to 32.2°C).

1.06 PROJECT CONDITIONS

A. Prior to surface preparation, terrazzo contractor shall:
   1. Evaluate slab condition, including slab moisture content and extent of repairs required, if any.
   2. Maintain the ambient room and floor temperature at 60-90°F (15.5-32.2°C) or above for a period extending 72 hours before, during and after floor installation. Concrete to receive epoxy terrazzo shall have cured for at least 28 days and be free of all curing compounds. Test concrete substrate to determine acceptable moisture levels prior to installation. Testing should be conducted according to ASTM F2170 (determining relative humidity in concrete slabs using in situ probes). Proceed with installation only after substrates have a maximum relative humidity measurement reading less than 80%. If relative humidity measurement reading is greater than or equal to 80%, Terroxy Moisture Vapor Treatment is required. Apply to terrazzo substrates according to Terroxy Resin Systems Moisture Vapor Treatment Product Data Sheet. An effective in situ probe for relative humidity testing is the RH BluePeg available from T&M Supply.

B. Prior to and during each day of installation, the terrazzo contractor shall verify that the dew point is at least 5°F (-15°C) less than the slab and air temperature.
C. Acceptable Substrates:
1. Level tolerance: Concrete sub-floor shall be level with a maximum variation from level of 1/4" in 10 feet (6.4 mm in 3.1m). Any irregularity of the surface requiring patching and/or leveling shall be done using Terroxy Fill and selected aggregates as recommended by Terroxy Resin Systems.
2. Concrete floor shall be prepared mechanically by shot blasting in accordance with ICRI Guideline No. 03732. Specifically, surface preparation results should achieve a CSP3-CSP5 profile.
3. Concrete floor shall receive a steel trowel finish.
4. Concrete shall be cured a minimum of 28 days. No curing agents are to be used in areas to receive terrazzo.
5. Concrete slab on grade shall have an efficient moisture vapor barrier (suggested minimum: 15 mils (.4 mm thickness)) directly under the concrete slab. Reference ASTM Methods E1745 Class A and installed in accordance with E1643. Moisture barrier shall NOT be punctured.
6. Saw cutting of control joints must be done between 12 and 24 hours after placement of the structural concrete and at a frequency compatible to ACI recommendations.

D. Provide permanent lighting or, if permanent lighting is not in place, simulate permanent lighting conditions during terrazzo installation.

E. Provide protection from other trades prior to final acceptance by owner.

PART 2 – PRODUCTS

2.01 EPOXY TERRAZZO


B. Materials:
1. Primer: Terroxy Primer or Terroxy Moisture Vapor Treatment (for slabs on-grade, light weight concrete and green concrete).
   a. Physical properties of moisture mitigating primer shall have a maximum of 0.3 perms with 100% RH.
2. Flexible Reinforcing Membrane: Terroxy Iso-Crack Epoxy Membrane, for substrate crack preparation and reflective crack reduction.
3. Epoxy Matrix: Terroxy Epoxy Matrix and in color required for mix indicated.
   a. Physical properties without aggregates. All specimens cured for 7 days at 73-77°F (22.8-25°C) and 50 percent plus or minus 2 percent RH. This product shall meet the following requirements:

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>NTMA Requirements</th>
<th>Terroxy Thin-set Epoxy Terrazzo Typical Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardness</td>
<td>ASTM D-2240 using Shore-D Durometer</td>
<td>60-85</td>
<td>75-85</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>ASTM D-638</td>
<td>3,000 psi min. (20.7 MPa)</td>
<td>4,800 psi min. (33.1 MPa)</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td>ASTM D-695 Specimen B cylinde</td>
<td>10,000 psi min. (68.9 MPa)</td>
<td>12,000 psi min. (82.7 MPa)</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td>ASTM D-790</td>
<td>Not specified</td>
<td>4,500 psi min. (31.7 MPa)</td>
</tr>
<tr>
<td>Chemical Resistance</td>
<td>ASTM D-1308 seven days at room temperature by immersion method</td>
<td>No deleterious effects: Distilled Water, Mineral Oil, Isopropanol, Ethanol, 0.025 Detergent Solution, 1% Soap Solution, 10% Sodium Hydroxide, 10% Hydrochloric Acid, 30% Sulfuric Acid, 5% Acetic Acid</td>
<td>No deleterious effects: Distilled Water, Mineral Oil, Isopropanol, Ethanol, 0.025 Detergent Solution, 1% Soap Solution, 10% Sodium Hydroxide, 10% Hydrochloric Acid, 30% Sulfuric Acid, 5% Acetic Acid</td>
</tr>
</tbody>
</table>
b. Physical properties with aggregates. For Epoxy Matrix blended with three volumes of Valders marble blended 60% #1 chip and 40% #0 chip, ground and grouted with epoxy resin according to Installation Specifications, finishing to a nominal 3/8” (9.5 mm) thickness. All specimens cured for 7 days at 73-77°F (22.8-25°C) and 50 percent RH plus or minus 2 percent RH. This finished Epoxy Matrix shall meet the following requirements:

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>NTMA Requirements</th>
<th>Terroxy Thin-set Epoxy Terrazzo Typical Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>ASTM D-635</td>
<td>Self extinguishing, extent of burning 0.25” (6.4 mm) max.</td>
<td>Self extinguishing, extent of burning 0.25” (6.4 mm) max.</td>
</tr>
<tr>
<td>Thermal Coefficient of Linear Expansion</td>
<td>ASTM D-696</td>
<td>25x10-6 inches per inch per degrees to 140°F (11.4x10-7 cm per cm per °C to 60°C Max)</td>
<td>25x10-6 inches per inch per degrees to 140°F (11.4x10-7 cm per cm per °C to 60°C Max)</td>
</tr>
<tr>
<td>Bond Strength</td>
<td>ACI COMM 403, Bulletin 59-43 (pages 1139-1141)</td>
<td>300 psi (2.1 MPa) -100% concrete failure</td>
<td>300 psi (2.1 MPa) -100% concrete failure</td>
</tr>
<tr>
<td>Flammability</td>
<td>ASTM D-635</td>
<td>Self extinguishing, extent of burning 0.25” (6.4 mm) max.</td>
<td>Self extinguishing, extent of burning 0.25” (6.4 mm) max.</td>
</tr>
<tr>
<td>Fire Rating - Test for Surface Burning Characteristics of Flooring</td>
<td>CAN/ULC S102.2-10 Tunnel Test</td>
<td>Smoke Developed Classification (SDC) - 175</td>
<td>Flame Spread Rating (FSR) - 5</td>
</tr>
</tbody>
</table>

4. Aggregates [OPTION: Marble, Glass, Mother of Pearl, Porcelain, Concrete] complying with NTMA gradation standards for mix indicated and containing no deleterious or foreign matter.
   a. Abrasion and Impact Resistance: Less than 40 percent loss per ASTM C 131.
   b. 24-Hour Absorption Rate: Less than 0.74 percent.
   c. Dust Content: Less than 1.0 percent by weight.
   d. Pre-Consumer or Post-Consumer Recycled Content: <Insert Value> percent.

5. Finishing Grout: Terroxy Epoxy Matrix or Terroxy Clear Resin with a broadcast of filler as recommended by Terroxy Resin Systems.

C. Mix: Comply with NTMA’s “Terrazzo Specifications and Design Guide” and manufacturer’s written instructions for matrix and aggregate proportions and mixing.
   1. Color and pattern schedule: Where the following designations are indicated, provide specified terrazzo matrices matching architect’s samples:
      a. TZ1: <Insert Terroxy Resin System’s sample number>
      b. TZ___: <Insert Terroxy Resin System’s sample number>
      c. TZ___: (Precast Tread/Riser) <Insert sample number>
      d. TZ___: (Precast Base) <Insert sample number>

2.02 STRIP MATERIALS

A. Thin-set Divider Strips: L-type.
   1. Material [White-zinc alloy] [Brass] selected from Domus Terrazzo full range.
   2. Guide for commonly used L-type divider strips for Thin-set Epoxy Terrazzo Systems:
2.03 MISCELLANEOUS ACCESSORIES

A. Strip Adhesive: 100% solids epoxy resin adhesive recommended by Terroxy Resin Systems.
   1. Use adhesive that has a VOC content of 50g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

B. Construction joints, contraction joints (Saw Cuts), isolation joints and cracks shall be detailed in accordance with NTMA technical bulletin T24

C. Patching and Fill Material: Terroxy Fill and selected aggregates as recommended by Terroxy Resin Systems.

D. Joint Compound: Terroxy Joint Filler Hardener to be used with Terroxy Resin Matrix Part A. Color to be selected by architect to match/compliment terrazzo flooring.

E. Cleaner: A neutral cleaner with pH factor between 7 & 10 specifically designed for terrazzo.

F. Surface Finish System: Level of polish to be specified by architect in accordance with desired appearance and level of reflectivity.

G. Sealer: Slip and stain-resistant sealer that is chemically neutral with a pH factor between 7 and 10, that meets a standard coefficient of friction of 0.5 or higher, as measured by the James Machine (ASTM D-2047 Test Method), does not affect physical properties of terrazzo and complies with NTMA’s “Terrazzo Specifications and Design Guide.”
   1. [Option 1: Terroxy WB Acrylic Sealer, medium gloss, water-based sealer.]
   2. [Option 2: Terroxy Acrylic Sealer, high performance, high gloss acrylic sealer.]
   3. [Option 3: Terroxy WB Urethane or T-Rx, high performance, high gloss, chemical-resistant urethane sealer.]

2.04 PRECAST TERRAZZO

A. Precast Terrazzo Units: Precast epoxy terrazzo [base] [stair tread] [threshold] [bench] [and] [planter] <Insert requirements> units.
   1. All precast components to utilize Terroxy Resin products for fabrication to ensure color consistency with the poured in place flooring.
   2. Manufacturers: Subject to compliance with requirements, provided products acceptable to architect.
      a. <Insert manufacturer’s name>.

B. Precast Terrazzo Base Units: 1/4" (6.4 mm) thick, cast in maximum lengths possible, but not less than 36" (900 mm).
   1. Type: [As indicated].
   2. Height: [As indicated].
   3. Outside Corner Units: With finished returned edges at outside corner.
   4. Color and Pattern: [Match architect’s sample] [Match adjacent poured-in-place terrazzo flooring].

C. Terrazzo Cove Base:
   1. [Option 1: Terroxy Resin Systems Epoxy Matrix poured-in-place cover base with 3/4" (19mm) radius, [___]” high. 4" (101.2 mm), 6" (152.4 mm) or 8" (203.2 mm))]
   2. [Option 2: Precast Epoxy Terrazzo Cove Base: Type _____, _____" high.]

D. Precast Terrazzo Stair Treads: Thickness indicated with cast-in nosing.
   1. Tread/Riser: 1/2" (12.7 mm) thick epoxy, Type _____ with abrasive pattern _____.
   2. Color and Pattern: [Match architect’s approved Terroxy Resin Systems Sample]
PART 3 – EXECUTION

3.01 EXAMINATION

A. Examine substrates and areas, with Terrazzo Contractor present, for compliance with requirements for installation tolerances and other conditions affecting performance.

B. Proceed with installation only after unsatisfactory conditions, including level tolerances, have been corrected.

3.02 PREPARATION

A. Clean substrates of substances, including oil, grease and curing compounds, that might impair terrazzo bond. Provide clean, dry and neutral substrate for terrazzo application.

B. Concrete Slabs:
1. Provide sound concrete surface free of laitance, glaze, efflorescence, curing compounds, form-release agents, dust, dirt, grease, oil and other contaminants incompatible with terrazzo.
   a. Prepare concrete mechanically by shot blasting. Surface preparation results should achieve a CSP3-CSP5 profile according to International Concrete Repair Institute Guideline No. 03732.
   b. Repair or level damaged and deteriorated concrete according to Terroxy Resin Systems Technical Bulletin 008 Substrate Leveling Requirements for Terroxy Thin-set epoxy terrazzo.
   c. Repair cracks and non-expansion joints greater than 1/16” (1.6mm) wide according to NTMA Technical Bulletin T26 Crack Detailing and Joint Treatments for Terroxy Resin Thin-set epoxy terrazzo.
2. Verify that concrete substrates are visibly dry and free of moisture.
3. Moisture Testing:
   d. Test for moisture according to ASTM F2170 (determining relative humidity in concrete slabs using in situ probes). An effective in situ probe for relative humidity testing is the Blue Peg available from Terrazzo & Marble Supply.
   e. Proceed with installation only after substrates have a maximum relative humidity measurement reading less than 80%. If relative humidity measurement reading is greater than or equal to 80%, Terroxy Moisture Vapor Treatment is required. Apply to terrazzo substrates according to Terroxy Resin Systems Moisture Vapor Treatment Product Data Sheet.

C. Protect other work from dust generated by grinding operations. Control dust to prevent air pollution and comply with environmental protection regulations.
   1. Erect and maintain temporary enclosures and other suitable methods to limit dust migration and to ensure adequate ambient temperatures and ventilation conditions during installation.

3.03 EPOXY TERRAZZO INSTALLATION

A. General:
1. Comply with NTMA’s written recommendations for terrazzo and accessory installation.
2. Place, rough grind, grout, cure grout, fine grind and finish terrazzo according to Terroxy Resin Systems Epoxy Matrix Product Data Sheet and NTMA’s “Terrazzo Specifications and Design Guide.”
3. Ensure that matrix components and fluids from grinding operations do not stain terrazzo by reacting with divider and control-joint strips.
4. Delay fine grinding until heavy trade work is complete and construction traffic through area is restricted.

B. Thickness: [3/8” (9.5 mm)]

C. Flexible Reinforcing Membrane
1. [Option 1: Membrane application for isolated cracking. Route out all cracks and fill with 100% Terroxy Primer. Apply Terroxy Iso-Crack Epoxy Membrane (spread at 40 mils = 1.0 mm thickness) across the crack allowing 6” (152.4mm) on either side. Imbed fiberglass scrim at a minimum of 9” (22.8cm) into wet membrane and saturate with additional membrane.]
2. [Option 2: Membrane application for extensive cracking or crack prevention. Route out all cracks and fill with 100% Terroxy Primer. Apply Terroxy Iso-Crack Epoxy Membrane (spread at 40 mils = 1.0 mm thickness) over prepared substrate to produce full substrate coverage in areas to receive terrazzo. (fiberglass scrim optional)]
D. Primer: Apply to terrazzo substrates according to Terroxy Resin Systems Primer Product Data Sheet.

E. Strip Materials:
   1. Divider and Accessory Strips:
      a. Install strips in adhesive setting bed without voids below strips.
      b. Construction joints, contraction joints (Saw Cuts), isolation joints and cracks shall be detailed in accordance with NTMA technical bulletin T24.

F. Placing Terrazzo:
   1. Mix epoxy matrix with chips and fillers in ratios directed by Terroxy Resin Systems.
   2. Trowel apply terrazzo mixture over epoxy primer to provide a dense flat surface to top of divider strips. Allow to cure per Terroxy Resin Systems recommendations before rough grinding.

G. Rough Grinding: Grind with 24 grit silicon carbide or 24 grit turbo diamonds until all terrazzo strips and marble chips are uniformly exposed.

H. Grouting:
   1. Cleanse floor with clean water and rinse.
   2. Remove excess rinse water by wet vacuum, dry and fill voids with Terroxy Resin Systems Epoxy Matrix or Clear Resin with a broadcast of filler.
   3. Allow grout to cure. Grout may be left on terrazzo until other trades work is completed.

I. Polishing: Polish with 120 grit T&M Resin Pads or equivalent stones until all grout is removed from surface. Produce surface with a minimum of 70 percent aggregate exposure. (Optional high finish polishes available. Please consult a terrazzo contractor for more information.)

3.04 PRECAST TERRAZZO INSTALLATION

A. Install precast units using method recommended by NTMA and manufacturer unless otherwise indicated.

B. Seal joints between units with joint sealants.

3.05 CLEANING AND PROTECTION

A. Cleaning: Remove grinding dust from installation and wash all surfaces with a neutral cleaner with a pH factor between 7-10.

B. Sealing: Apply TRx sealer that is chemically neutral with a pH factor between 7 and 10, that meets a standard coefficient of friction of 0.5 or higher, as measured by the James Machine (ASTM D-2047 Test Method), does not affect physical properties of terrazzo and complies with NTMA’s

C. Protection: Upon completion, the work shall be ready for final inspection and acceptance by the owner or his agent. Provide final protection and maintain conditions, in a manner acceptable to terrazzo contractor, that ensure terrazzo is without damage or deterioration.

END OF SECTION 096623
Epoxy Matrix

Description:
Terroxy Matrix is a pigmented and highly decorative epoxy resin for poured-in-place epoxy terrazzo flooring systems. This two part 100% solid matrix consists of a 5:1 ratio, Part A Resin to Part B Hardener. When mixed, Terroxy Matrix offers outstanding durability and provides one of the lowest life cycle costs relative to other decorative flooring systems. The finished surface is chemical resistant, easy to maintain, virtually odor free and does not support bacterial growth.

Product Benefits:
• Quick curing for fast project turnaround
• Weighs less and has higher strength than conventional cement terrazzo: suitable for multi-story buildings, elevator cabs and vertical applications.
• Extremely durable, provides lowest life cycle cost available for decorative flooring
• Unlimited color capabilities allow for unlimited design variations
• Chemical and high traffic wear resistance
• Environmentally friendly, zero VOC content
• Resists bacteria and fungal growth

Coverage:
Coverage rates shown below are approximate and will depend upon application technique, surface texture, porosity of substrate and job conditions.

<table>
<thead>
<tr>
<th>Terrazzo Floor Thickness</th>
<th>Approximate Coverage Per Blended Gallon</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot; Thickness</td>
<td>11-13 ft²</td>
</tr>
<tr>
<td>3/8&quot; Thickness</td>
<td>8-10 ft²</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Terrazzo Floor Thickness</th>
<th>Approximate Coverage Per 3.8 Blended Liters</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.4 mm Thickness</td>
<td>3.4 - 4 m²</td>
</tr>
<tr>
<td>9.5 mm Thickness</td>
<td>2.5 - 3 m²</td>
</tr>
</tbody>
</table>

Concrete Substrate Preparation:
1. Concrete slab shall have an efficient moisture/vapor barrier (suggested minimum: 15 mils thickness = .4 mm) directly under the concrete slab.
2. Allow substrate to cure a minimum of 28 days.
3. Sub-floor should be flat (maximum variation not to exceed 1/4" in 10 feet = 6.4 mm in 3.1 m).
4. Test concrete substrate to determine acceptable moisture levels prior to installation. Testing should be conducted according to ASTM F2170 (determining relative humidity in concrete slabs using in situ probes).
5. Concrete surface shall be prepared mechanically by shot blasting. Surface preparation results should achieve a CSP3-CSP5 profile according to ICRI Guideline No. 03732.
6. Surface to receive terrazzo should have a steel trowel finish.
7. The use of concrete curing agents may prevent bonding. If curing agent present, surface must be shot blasted to remove all contaminates from the floor.

Installation Instructions
Mixing:
Set divider strips in accordance with architectural specifications. Divider strips shall be permanently bonded to substrate utilizing 100% solid epoxy resin as suggested by Terroxy Resin Systems. Priming the substrate with Terroxy Primer is recommended, allow to set for a minimum of 30 min. before applying Terroxy Epoxy Matrix. Mix Terroxy Resin Systems Epoxy Matrix Part A Resin and Part B Hardener at a ratio of 5:1 by volume for 3 minutes; add the specified aggregates.
Applications:
Trowel to the desired thickness specified in the architect’s design then allow system to cure overnight. Grind with 24 grit or rough grit stones. Grout surface with Terroxy Epoxy Matrix or Terroxy Clear Resin to seal and fill voids. Allow the system to cure overnight. (Grout may be left on terrazzo until other trades’ work is completed.) Grind floor with medium or fine grit stones until all grout is removed from surface. Polishing may need to be repeated if a higher shine finish is desired. Clean thoroughly with a neutral cleaner with a pH factor between 7-10 and allow surface to dry. Seal with TRX Sealer, Terroxy WB Urethane Sealer, Terroxy WB Acrylic Sealer or Terroxy Acrylic Sealer in accordance with Terrazzo & Marble Supply Companies.

Cure Time:
18 - 24 Hours prior to grinding.

Technical Data:
Neat Resin Performance Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Typical Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardness</td>
<td>ASTM D-2240 using Shore-D Durometer</td>
<td>75-85</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>ASTM D-638</td>
<td>4800 psi min. (33.1 MPa)</td>
</tr>
<tr>
<td>Tensile Elongation</td>
<td>ASTM D-638</td>
<td>4-8%</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td>ASTM D-790</td>
<td>4500 psi min. (31.0 MPa)</td>
</tr>
<tr>
<td>Flexural Modulus</td>
<td>ASTM D-790</td>
<td>2.3 x 10^5 psi (1586.0 MPa)</td>
</tr>
<tr>
<td>Chemical Resistance</td>
<td>ASTM D-1308 Seven Days at room temperature by immersion method.</td>
<td>No deleterious effects : • Distilled Water • Mineral Oil • Isopropanol • Ethanol • 0.025 Detergent Solution • 1% Soap Solution • 10% Sodium Hydroxide • 10% Hydrochloric Acid • 30% Sulfuric Acid • 5% Acetic Acid</td>
</tr>
<tr>
<td>Flammability</td>
<td>ASTM D-635</td>
<td>Self extinguishing, extent of burning 0.25” (6.4 mm) max.</td>
</tr>
<tr>
<td>Fire Rating - Test for Surface Burning Characteristics of Flooring</td>
<td>CAN/ULC S102.2-10 Tunnel Test</td>
<td>Smoke Developed Classification (SDC) - 175 Flame Spread Rating (FSR) - 5</td>
</tr>
<tr>
<td>Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Environmental Chamber</td>
<td>ASTM D5116 (aka CA Section 01350)</td>
<td>Meets Section 1350 requirements</td>
</tr>
<tr>
<td>Thermal Coefficient of Linear Expansion</td>
<td>ASTM D-696</td>
<td>25x10^-4 inches per inch per °F to 140°F maximum 11.4x10^-7 cm per cm per °C to 60°C maximum</td>
</tr>
<tr>
<td>Bond Strength</td>
<td>ASTM C-1583-04/ ACI COMM 403, Bulletin 59-43 (pages 1139-1141)</td>
<td>300 psi (2.07 MPa) - 100% concrete failure</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td>ASTM D-695, Specimen B Cylinder</td>
<td>13,920psi minimum (96.0 MPa min)</td>
</tr>
<tr>
<td>Fungus &amp; Bacterial Resistance</td>
<td>MIL-F-52505 4.4.2.11</td>
<td>Will not support growth of fungus or bacteria</td>
</tr>
<tr>
<td>Impact Resistance</td>
<td>MIL D-3134F 4.7.3</td>
<td>Withstands 16 ft/lbs without cracking, delaminating or chipping</td>
</tr>
<tr>
<td>Resistance to Elevated Temperatures</td>
<td>MIL D-3134F 4.7.4</td>
<td>No slip or flow at 158°F (70°C)</td>
</tr>
<tr>
<td>Indentation</td>
<td>MIL D-3134F 4.7.4</td>
<td>Withstands 2000 lbs/sq in for 30 min. without indentation  Withstands 13.8 MPa for 30 min. without indentation</td>
</tr>
<tr>
<td>Thermal Shock Resistance</td>
<td>ASTM C-884</td>
<td>Passes</td>
</tr>
<tr>
<td>Water Absorption</td>
<td>ASTM D-570</td>
<td>0.010%</td>
</tr>
<tr>
<td>Critical Radiant Flux</td>
<td>ASTM D-648</td>
<td>1.0 watts/cm²</td>
</tr>
<tr>
<td>Abrasion Resistance</td>
<td>ASTM D-4060</td>
<td>0.35 grams lost</td>
</tr>
</tbody>
</table>
Additional Considerations:

- Concrete slab, on or below grade, must have an efficient moisture/vapor barrier (suggested minimum: 15mil/.4 mm thickness).
- During installation and initial cure cycle, ambient air and slab temperature shall be maintained as per Terroxy Resin Systems’ recommendations, minimum 60°F (15.5°C).
- Adequate ventilation should be provided and proper clothing should be worn.
- All food must be removed from work area and areas subject to fumes during installation and initial cure.
- Extinguish all sources of ignition during the entire installation cycle.
- Strictly adhere to published coverage rates.

Maintenance:
Clean surface with neutral cleaner that has a pH factor between 7 and 10. Rinse with clean water then allow surface to dry. Routine mechanical scrubbing is recommended for all surfaces having a non-skid texture. Long periods of heavy traffic may cause wear patterns across the surface.

Terroxy Epoxy Matrix is easily cleaned with neutral soaps or detergents. Routine hand scrubbing is recommended for all surfaces having a non-skid texture. Waxing is optional. Long periods of heavy traffic may cause wear patterns necessitating a finish coat maintenance application of TRX Sealer, Terroxy WB Urethane Sealer, Terroxy WB Acrylic Sealer or Terroxy Acrylic Sealer in accordance with Terrazzo & Marble Supply Companies.

Technical Service:
Terrazzo & Marble Supply Companies, distributor of Terroxy Resin Systems, provides services and consultations on material selection, specifications and troubleshooting concerning proper thin-set epoxy terrazzo installation. Contact our Terrazzo Sales Desk at 800.7.MARBLE or T&M Technical Department at 708.385.6633 for questions or assistance.

Precautions:
Refer to cautionary information printed on the product container. For medical emergencies, contact Chemtrec, the Chemical Emergency Transportation Center, at 800.424.9300.

Warranty:
Terrazzo & Marble Supply Companies warrants for a period of one (1) year that Terroxy Epoxy Matrix will be free of manufacturing defects and will conform to published specification when handled, stored, mixed and applied in accordance to recommendations of Terrazzo & Marble. If Terroxy Epoxy Matrix fails to meet this warranty, the liability of Terrazzo & Marble will be limited to replacement of any non-conforming Terroxy Epoxy Matrix only if notice of such non-conformity is given to Terrazzo & Marble within one (1) year from the delivery of materials. Terrazzo & Marble may, according to its discretion, refund the price received by Terrazzo & Marble in lieu of replacing the Terroxy Epoxy Matrix. No customer, distributor or representative of Terrazzo & Marble is authorized to change or modify the published specification of this warranty in any way. No one is authorized to make oral warranties on behalf of Terrazzo & Marble. In order to obtain replacement or refund, the customer must provide written notice containing full details of the non-conformity. Terrazzo & Marble reserves the right to inspect the non-conforming Terroxy Epoxy Matrix prior to replacement. Except for the expressed warranty stated above, there is no other warranties, expressed or implied, including without limitation, implied warranty of merchantability or fitness for purpose. Terrazzo & Marble’s obligation shall not extend beyond the obligations expressly undertaken above and Terrazzo & Marble shall have no liability or responsibility to the purchaser or any third party for any loss, cost, expense, damage or liability, whether direct or indirect, or for incidental or consequential damages.
Moisture Vapor Treatment

Description:
When used in conjunction with Terroxy Primer, Terroxy Moisture Vapor Treatment is the ideal treatment for cured concrete that exhibits excessive moisture vapor transmission. Terroxy Moisture Vapor Treatment is a water-based epoxy primer designed specifically for damp or green concrete. Terroxy Moisture Vapor Treatment is compatible with Terroxy Primer, Terroxy Iso-Crack Epoxy Membrane and Terroxy Epoxy Matrix.

Product Benefits:
• Eliminates the negative effects of moisture vapor transmission upon your finished terrazzo & industrial flooring system
• Tolerates Moisture Vapor Transmission (MVT) up to 20 lbs. per 1,000 ft\(^2\) (9 Kg. per 92.9 m\(^2\)) per 24 hours as measured by ASTM F 1869 (calcium chloride test), and 80% or greater relative humidity as measured by ASTM F 2170 (determining relative humidity in concrete slabs using in situ probes). An effective in situ probe for relative humidity is the RH Blue Peg available from T&M Supply.
• Calcium chloride test should not be used unless building is fully climate controlled per ASTM Standards
• Environmentally friendly, zero VOC content
• Low formulation viscosity allows for excellent penetration of concrete substrate
• Effective with green or highly alkaline concrete
• Allows fast-track construction schedules

ASTM E-96 Test Results:
According to ASTM E–96, Standard Test Method for water Vapor Transmission Materials, Terroxy Moisture Vapor Treatment measured the following permanence under the testing conditions.

<table>
<thead>
<tr>
<th>Test Conditions</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncoated concrete over water</td>
<td>2.69 perms</td>
</tr>
<tr>
<td>Uncoated concrete with constant 85% RH</td>
<td>1.33 perms</td>
</tr>
<tr>
<td>Over water, concrete treated with Terroxy Moisture Vapor Treatment and Terroxy Primer</td>
<td>0.26 perms</td>
</tr>
<tr>
<td>With constant 85% RH, concrete treated with Terroxy Moisture Vapor Treatment and Terroxy Primer</td>
<td>0.21 perms</td>
</tr>
</tbody>
</table>

Coverage:
Typical coverage is approximately 425 ft\(^2\), (39.48 m\(^2\)) per blended unit. Coverage will vary depending on surface profile and porosity. When product is applied to light-weight concrete, coverage rates will decrease significantly.

Concrete Substrate Preparation:
1. Concrete slab shall have an efficient moisture/vapor barrier (suggested minimum: 15 mils / 0.4mm thickness) directly under the concrete slab.
2. No curing agents should be used.
3. If recently poured concrete:
   a. Product applied as soon as bleed water evaporates off of concrete surface
   b. All surface contaminants must be removed.
   – OR –
3. If fully cured concrete (> 28 days)
   a. Concrete surface shall be prepared mechanically by shot blasting. Surface preparation results should achieve a CSP3–CSP5 profile according to ICRI Guideline No. 03732.
   b. All surface contaminants must be removed.

For Teroxy Industrial Flooring Systems refer to Industrial Flooring Concrete Surface Preparation(IFCSP).
**Installation Instructions**

**Mixing:**
Terroxy Moisture Vapor Treatment is a three-component product and must be properly mixed and applied in order to perform as specified. Substrate and all materials must be maintained at 60–90°F (15.5-32.2°C) for 24 hours before, during and after installation. Using clean 3–1/2 gallon container provided, pour Part B (Hardener) into clean pail, then mix Part A (Resin) into Part B with a slow speed mixer, thoroughly mix Part A & B for a minimum of 2–3 minutes. This will result in a creamy emulsion. Add one gallon of water slowly while continuously mixing. Let mix for several minutes to ensure homogenous consistency.

**Applications:**
Apply Terroxy Moisture Vapor Treatment at a rate of 425 ft² (39.48 m²) per blended unit. It is recommended that the Terroxy Moisture Vapor Treatment be applied to a damp concrete substrate but not wet (i.e. no puddles or standing water being visible on the concrete substrate). The Terroxy Moisture Vapor Treatment can be brushed or rolled onto the concrete. It can also be sprayed or applied with a squeegee. In order for product to perform as specified it is critical to not exceed the recommended coverage rate of 200 ft² (18.6 m²) per gallon. Avoid leaving any puddles of Terroxy Moisture Vapor Treatment. Allow product to cure for a minimum of 24 hours and then apply Terroxy Primer, as required, at a rate of 250 ft² (23.2 m²) per gallon. Proceed with normal sequence of terrazzo installation after Terroxy Primer has been applied.

**Cure Time:**
Minimum of 8 hours or until water is clear in appearance then apply Terroxy Primer.

**Additional Considerations:**
Do not use in temperatures below 60°F (15.5°C). Do not use where known hydrostatic pressure conditions exist.

Where relative humidity exceeds 95% and/or Moisture Vapor Transmission rates exceed 20 lbs. per 1,000 ft² (9 Kg. per 92.9 m²) per 24 hours, contact the T&M Technical Department at 708.385.6633.

**Technical Service:**
Terrazzo & Marble Supply Companies, distributor of Terroxy Resin Systems, provides services and consultations on material selection, specifications and troubleshooting concerning proper thin-set epoxy terrazzo installation. Contact our Terrazzo Sales Desk at 800.7.MARBLE or T&M Technical Department at 708.385.6633 for questions or assistance.

**Precautions:**
Refer to cautionary information printed on the product container. For medical emergencies, contact Chemtrec, the Chemical Emergency Transportation Center, at 800.424.9300.

**Warranty:**
Terrazzo & Marble Supply Companies (T&M) warrants for a period of one (1) year that Terroxy Moisture Vapor Treatment will be free of manufacturing defects and will conform to published specification when handled, stored, mixed and applied in accordance with recommendations of T&M. If Terroxy Moisture Vapor Treatment fails to meet this warranty; the liability of T&M will be limited to replacement of any non-conforming Terroxy Moisture Vapor Treatment only if notice of such non-conformity is given to T&M within one (1) year of delivery of materials. T&M may, according to its discretion, refund the price received by T&M in lieu of replacing the Terroxy Moisture Vapor Treatment. No customer, distributor or representative of T&M is authorized to change or modify the published specification of this warranty in any way. No one is authorized to make oral warranties on behalf of T&M. In order to obtain replacement or refund, the customer must provide written notice containing full details of the non-conformity. T&M reserves the right to inspect the non-conforming Terroxy Moisture Vapor Treatment prior to replacement. Except for the expressed warranty stated above, there is no other warranties, expressed or implied, including without limitation, implied warranty of merchantability or fitness for purpose. T&M’s obligation shall not extend beyond the obligations expressly undertaken above and T&M shall have no liability or responsibility to the purchaser or any third party for any loss, cost, expense, damage or liability, whether direct or indirect, or for incidental or consequential damages.

Distributed By:
Terrazzo Poured Flooring Systems

Sand Cushion Terrazzo

Rustic Terrazzo

Bonded Terrazzo

Thin-Set Terrazzo

Monolithic Terrazzo

Terrazzo Base

Terrazzo Stairs

Covering All Your Terrazzo Needs
Specialty Aggregates | Machinery | Diamond Abrasives
Terroxy® Resin Systems | Divider Strips | Dedicated Sales Force Over 50 Years Experience
### Basic Terrazzo Systems Information  •  Available to Fit Variable Job Conditions

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| Epoxy $$     | A nominal 1/4" or 3/8" thick resin matrix veneer placed upon a level concrete slab. Also can be specified with glass, synthetic, or granite aggregates in lieu of marble to provide brilliant colors or chemical resistance; The best “thin-set” system. | Unlimited matrix colors, color control, resiliency, chemical resistance and tensile-compressive strengths not found in cement-based systems. Excellent for multi-colored patterns and designs. Light weight and flexibility make it ideas for multi-story use. It has the lowest maintenance cost due to non-absorbency*. In sanitary areas can be installed with minimal dividers providing seamless characteristics. When used in conjunction with a flexible membrane as a specified extra, it can absorb some horizontal concrete crack or control joint movement. It also has the quickest pour to grind installation time. Can also be used over properly installed and prepared plywood. Glass and other decorative aggregates increase cost. | Nominal 1/4" or 3/8" Epoxy terrazzo topping.  
*1/4" chips sizes opt.  
*#2 chip for 3/8" | 3-4 lbs./sq. ft. | All these systems adhere to the concrete and require dividers to be placed precisely above any concrete joints (see details on reverse side). To prevent the concrete from cracking and therefore the terrazzo, “ACI 301.1 R89 Concrete Joint Placement” must be followed. Some of these requirements include: Concrete joints should occur a maximum of three times in feet the depths of the concrete in inches. (Example: A 4' slab should have concrete joints at a maximum spacing of 12 ft.) Concrete joints should run off all corridor intersections and corners. They should not be spaced more than 1-1/2 times the width of the concrete pour. (Example: A 6 ft. wide corridor should have concrete joints at a maximum of 9 ft.) |
| Polyacrylate $$ | A nominal 3/8" thick polymer modified cement matrix veneer placed upon a provided level concrete slab. Polymer provides strength to allow for thinner applications of cementatious systems. | Fast installation and moderate price range make it ideal to replace vinyl or carpet without depth transition difficulties, also good to use in areas subject to moisture vapor transmission where epoxy terrazzo or other non-breathing floors will not adhere. | Nominal 3/8" Polyacrylate terrazzo topping.  
*Chip sizes #0,1,2 | 4-1/2 lbs./sq. ft. | In addition other dividers can be set to separate colors or as an accent themselves. In these systems the dividers not located over concrete joints are strictly decorative. They do not function as leveling devices or crack preventers. |
| Monolithic $  | This 1/2" thick cement matrix veneer placed upon a provided concrete slab is dependent on the concrete quality for flatness and crack prevention. | Fast installation and the most economical price make it idea where time and budget are critical but where beauty, low maintenance and the performance of terrazzo is desired. | 1/2" terrazzo topping | 5-7 lbs./sq. ft. | Dividers vary in width from 19 gauge to 1/2". 16 gauge or 1/8" are standards. Zinc is standard but brass and colored plastic are readily available. |
| Bonded $$$   | A cement matrix and underbed system for interior and exterior areas where conditions require 1-1/4" to 1-3/4" of recessed depth to be filled in addition to the 1/2" terrazzo topping. | With the sand-cement underbed it has less dependence on the concrete slab for flatness when compared to monolithic. | 1-3/4" - 2-1/4" including a 1/2" terrazzo topping | 18-22 lbs./sq. ft. | Architects should designstructural inset expansion plates between areas where major movement is anticipated. |
| Sand Cushion $$ | A cement matrix topping underbed with wire reinforcing, isolation sheet, and sand layer for interior floor use. This is the best cement based system. | Due to the underbed's depth, wire mesh reinforcing, isolation sheeting and sand layer it will absorb minor substrate defects and prevent mirroring to the surface. | 2-1/2" to 3" including a 1/2" terrazzo topping | 25-30 lbs./sq. ft. | The position of the divider strip is essential to performance, serving a dual function: a control for anticipated contraction and an aesthetic enhancement in separating color. 5' or less on centers. Architects should design structural inset expansion plates between areas where major movement is anticipated. |
| Rustic $     | Terrazzo with non-ground, textured surface, for exterior use. This system is available with Sand Cushion, bonded, Structural and Monolithic or any cement system. | Infinitely variable textures, colors and patterns may be created in a weather-resistant, skid-resistant deck surface. | 1/2" to 6" including a 1/2" terrazzo topping | Dependent on system selected | Temporary wood strips are used, then replaced by a pourable sealant inserted into the joint. |
| Precast      | Prefabricated custom units for steps, bases, planters, benches, wall panels, etc. | Unlimited use                                                                                                                                  | Custom finished    |                    |                     |

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- **www.tmsupply.com**
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- **6100 Seaforth St.  
  Baltimore, MD 21224  
  p: 410.633.6200**
- **Baltimore, MD 21224  
  p: 410.633.6200**

### Domus TERRAZZO SUPPLY CO. LTD

- **www.domusterrazzo.com**
- **5789 Steeles Avenue West  
  Toronto, ON M9L 2W3  
  p: 416.789.5387**
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  Toronto, ON M9L 2W3  
  p: 416.789.5387**

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