

Terroxy® Epoxy Matrix

Description:

Terroxy® Matrix is a pigmented and highly decorative epoxy resin for poured-in-place thin-set 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 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:

Terrazzo Floor Thickness	Approximate Coverage Per Blended Gallon
1/4" Thickness	11-13 sqft
3/8" Thickness	8-10 sqft

Terrazzo Floor Thickness	Approximate Coverage Per 3.8 Blended Liters
6.4 mm Thickness	3.4 - 4 sqm
9.5 mm Thickness	2.5 - 3.0 sqm

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 level (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. Substrate should not been treated with a curing agent as this 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 minutes before applying Terroxy® Resin Systems 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.

Application

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 Terroxy® Terra Clean and allow surface to dry. Seal with Terroxy® Penetrating Sealer, Terroxy® WB Urethane Sealer, Terroxy® WB Acrylic Sealer or Terroxy® Acrylic Sealer in accordance with Terrazzo & Marble Supply Companies.

Product Data Sheet

Product Benefits:

- Unlimited Design Options
- Chemical Resistant
- Extremely Durable
- Quick Curing

Cure Time

18-24 Hours prior to grinding.

Technical Data:

Neat Resin Performance Properties

Property	Test Method	Typical Results
Hardness	ASTM D-2240 using Shore-D Durometer	75-85
Tensile Strength	ASTM D-638	4,800 psi min.
		33.1 MPa
Tensile Elongation	ASTM D-638	4-8%
Compressive Strength	ASTM D-695 Specimen B cylinder	12,000 psi min.
		82.7 MPa
Flexural Strength	ASTM D-790	4,500 psi min.
		31.0 MPa
Flexural Modulus	ASTM D-790	2.3 x 10 ⁵ psi
		1586.0 MPa
Chemical Resistance	ASTM D-1308 seven days at room temperature by immersion method	No deleterious effects: <ul style="list-style-type: none"> ■ 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

Property	Test Method	Typical Results
Flammability	ASTM D-635	Self extinguishing, extent of burning 0.25" (6.4 mm) max
Thermal Coefficient of Linear Expansion	ASTM D-696	25x10 ⁻⁶ inches per inch per °F to 140°F maximum
		11.4x10 ⁻⁷ cm per cm per °C to 60°C maximum
Bond Strength	ASTM C-1583-04/ ACI COMM 403, Bulletin 59-43 (pages 1139-1141)	300 psi (100% concrete failure)
		2.07 MPa (100% concrete failure)
Fungus & Bacteria Resistance	MIL F-52505 4.4.2.11	Will not support growth of fungus or bacteria
Impact Resistance	MIL D-3134F 4.7.3	Withstands 16 ft/lbs without cracking, delaminating or chipping
Resistance to Elevated Temperatures	MIL D-3134F 4.7.4	No slip or flow at 158°F (70°C)
Indentation	MIL D-3134F 4.7.4	Withstands 2000 lbs/ sq in for 30 min. without indentation
		Withstands 13.8 MPa for 30 min. without indentation
Thermal Shock Resistance	ASTM C-884	Passes
Water Absorption	ASTM D-570	0.010%
Critical Radiant Flux	ASTM D-648	1.0 watts/cm ²
Abrasion Resistance	ASTM D-4060	0.035 grams lost

Additional Considerations:

- Concrete slab, on or below grade, must have an efficient moisture/vapor barrier (suggested minimum: .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 Terroxy® Terra Clean or comparable 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. Terroxy® Terra Clean is recommended. 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 Terroxy® Penetrating 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 our Technical Department at 866.TERROXY 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.

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