

Urethane Concrete

Description:

Terroxy Urethane Concrete is a three-component water-based polyurethane cement for concrete flooring. This system is odorless, contains no VOC's or HAP's. Properties include excellent chemical resistance against acids, bases, oils, and organic solvents. This product has a low viscosity that is trowel applied and back-rolled for a smooth finish. This polyurethane develops a hard, scratch resistant surface resistant to thermal shock and moisture. Before application, thoroughly prepare surface by grinding or shot-blasting. Terroxy Urethane Concrete is available a variety of colors.

Product Benefits:

- Excellent chemical and stain resistance
- Impact and abrasion resistant
- Rapid Cure & hardness development
- Excellent bond strength
- Durable and easy to clean
- Water Based, Zero VOC Formulation
- Low temperature cure

Typical Applications:

- Industrial uses with medium to heavy traffic
- Processing plants
- Locker rooms and restrooms
- Clean rooms & laboratories
- Cold storage areas
- Areas requiring high performance

Coverage:

Terroxy Urethane Concrete can be applied to a variety of substrates given that the surface is properly prepared. Typical coverage is 25 ft² per blended kit at 1/4" thick.

Concrete Substrate Preparation:

Terroxy Urethane Concrete can be applied to a variety of substrates given that the surface is properly prepared. Preparation of surfaces other than concrete will depend on the type of substrate.

1. Concrete slab shall have an efficient moisture/vapor barrier (suggested minimum: 15 mils / 0.4mm thickness) 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 ft (6.35 mm in 3m).
4. The recommended preparation method is shot blasting.
5. Surface to receive Terroxy Urethane Concrete should have a steel trowel finish.
6. Substrate should not been treated with a curing agent as this may prevent bonding. If curing agent present, surface must be shot blasted.

For complete guidelines refer to Resinous Flooring Concrete Surface Preparation(RFCSP)

Installation Instructions

Mixing:

Terroxy Urethane Cement is a three-component product and must be properly mixed and applied in order to perform as specified. Add Urethane Concrete Part B to Urethane Concrete Part A and mix with medium agitation for at least 60 seconds, or a uniform tan color. Pour mixture into a 5-gallon pail and add Urethane Concrete Part C powder with color pack (if using) and mix until uniform. Material has 15-20 minute pot life at 72°F.

Mix ratio is 1.2 gal. Part A, 0.8 gal. Part B, 40 lbs. Part C.

Application:

Apply Urethane Concrete in a temperature controlled environment at a spread rate 25 ft² at 3/16" to 1/4" thickness and then back roll with spiked roller. This material will cure faster in hot or humid conditions.

Limitation:

Rapid cure. Do not mix more material than can be applied in 15-20 minutes. Slab on grade requires vapor/moisture barrier. Do not thin this product. Solvents may prevent proper curing. Substrate temperatures should be 35°F (4°C) minimum and rising. For best results, material should be maintained and stored at temperatures between 50° - 80°F (10° - 27°C).

IMPORTANT: This product is sensitive to liquid epoxy materials. Contamination with liquid epoxy materials will also cause excessive heat and product failure.

Cure Time:

Allow to cure 5-6 Hours at 75°F (23.8°C) surface temperature before opening to light traffic. Full cure time is 5-7 days. Material cures more slowly at lower temperatures.

Technical Data:

Property	Method	Results
Flexural Strength	ASTM-C 580	2,300 psi (14.7 MPa)
Abrasion Resistance	ASTM D-4060 C-S17 Wheel 1000 Cycles	10-20 mg loss
Flammability	ASTM D-635	Self-extinguishing over concrete
Hardness	ASTM D-2240, Shore D	75-80
Tensile Strength	ASTM C-307	1,000 psi minimum (6.9 MPa)
Compressive Strength	ASTM C-579	5000 psi (34.5 MPa)
Adhesion	ACI 503R	350 psi (2.4 MPa) 100% Concrete Failure
Impact Resistance	MIL D-3134F 4.7.3	Withstands 16 ft/lbs without cracking, delaminating or chipping
Thermal Coefficient of Expansion	ASTM C-531	0.89 x 10 ⁻⁵ inches per inch/degrees Fahrenheit maximum (1.6 x 10 ⁻⁵ mm/°C)
Fungus & Bacterial Resistance	MIL F-52505 4.4.2.11	Will not support growth of fungus or bacteria
Water Absorption	ASTM C-413	0.10%
Chemical Resistance	ASTM D-1308	No deleterious effects when exposed to: Alcohol Ethylene Glycol Fats, Oils & Sugars Gasoline, Diesel & Kerosine Hydrochloric Acid (<35%) Lactic Acid (Milk) Mineral Oils Most Organic Solvents Muratic Acid Nitric Acid (<10%) Nitric Acid (<30%) Slight Softening PM Acetate Phosphoric Acid (<50%) Potassium Hydroxide (<50%) Sodium Hydroxide (<50%) Sulfuric Acid (<50%) Slight Gloss Loss Water Xylene

Clean Up

Clean up mixing and application equipment immediately after use. Use toluene or xylene. Observe all fire and health precautions when handling or storing solvents

Maintenance:

After completing the application of Terroxy Urethane Concrete, the installer should provide the owner with proper maintenance instructions. If the floors become slippery due to animal fats, oil, grease, soap or other topical residue, promptly remove contaminants and rinse thoroughly.

Terroxy Urethane Concrete is easily cleaned with neutral pH Balance Cleaners or detergents. Routine hand scrubbing is recommended for all surfaces having a slip resistant texture.

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 Urethane Concrete 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 Urethane Concrete fails to meet this warranty, the liability of Terrazzo & Marble will be limited to replacement of any non-conforming Terroxy Urethane Concrete 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 Urethane Concrete. 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 nonconformity. Terrazzo & Marble reserves the right to inspect the non-conforming Terroxy Urethane Concrete 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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