

SYSTEM BULLETIN

Industrial Trowel

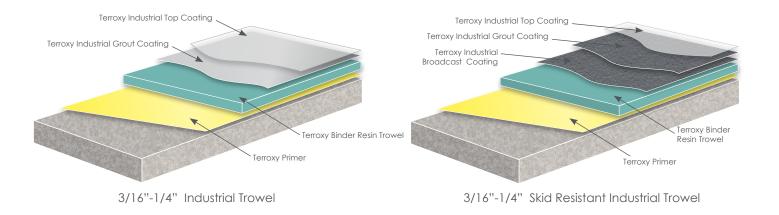
Terroxy Industrial Trowel is a high build (3/16"-1/4"), chemical resistant & protective resurfacing system. The system utilizes epoxy and silica aggregate mortar, high build grout and seal coat and select aggregate for skid resistance.

System Benefits:

- Heavy protection against thermal shock, impact and wear
- Resistance from chemical degradation
- Durable and easy to clean
- Available in multiple colors
- Zero V.O.C. System (Clear Top Coat)
- Low V.O.C System (Pigmented Top Coat)

Typical Applications:

- Interior industrial areas with heavy traffic
- Kitchens, Restaurants & Cafeterias
- **Chemical Processing Plants**
- Docks & Ramps
- Locker rooms and restrooms
- Clean rooms & laboratories
- Classrooms & auditoriums •
- Maintenance Areas



Test	Method	Results	
Abrasion Resistance	ASTM D-4060 C-S17 Wheel 1000 Cycles 70-90 mg loss		
Adhesion	ACI 503R 300 psi (100% concrete failure) (2.07 MPa)		
Color	-	Clear & Standard Colors	
Compressive Strength	ASTM C-579	15,000 psi (103.4 MPa)	
Flammability	ASTM D-635	Self-extinguishing over concrete	
Flexural Strength	ASTM C-580	4,300 psi (29.6 MPa)	
Hardness	ASTM D-2240, Shore D	80/65	
Impact Resistance	MIL-D-3134J	Withstands 16 ft - Ibs without cracking, delamination or chipping (2.2 m - kg)	
Tensile Strength	ASTM C-307 ASTM D-638	1,700 psi (11.7 MPa) 6,000 psi (41.4 MPa)	
Resistance to Elevated Temperatures	MIL-D-3134J	No Slip of flow at required temperature of 158°F (70°C)	

Installation

Terroxy materials shall only be installed by approved contractors. The following information is to be used as a guideline for the installation of the Industrial Trowel. Contact the Technical Service Department for assistance prior to application.

Surface Preparation - General

Terroxy systems can be applied to a variety of substrates, if the substrate is properly prepared. Preparation of surfaces other than concrete will depend on the type of substrate, such as wood, concrete block, quarry tile, etc. Should there be any questions regarding a specific substrate or condition, please contact the Technical Service Department prior to starting the project.

Concrete Substrate Preparation:

Terroxy Industrial Trowel 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 3 m).
- 4. The recommended preparation method is shot blasting.
- 5. Surface to receive Terroxy Industrial Trowel 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 specific preparation guidelines contact your T&M representative.

Temperature

Throughout the application process, substrate temperature should be above 50°F (10°C) and rising. Substrate temperature must be at least 5°F above the dew point. Applications on concrete substrates should occur while temperature is falling to lessen off-gassing. The material should not be applied in direct sunlight, if possible.

Application Information

Material	Mix Ratio	Theoretical Coverage Per Coat	Packaging
Terroxy Primer	2:1	250 ft²/gal	3 gal
Terroxy Binder Resin	1:1	Varies	10 gal
Terroxy Industrial Coating	2:1	50-200 ft²/gal	3 gal

Different optional top coats - Consult individual Technical Data Sheet for mixing and application instructions.

Terroxy UV Clear Terroxy Polyaspartic Terroxy Novolac Terroxy 2K Urethane Terroxy Purify

Terroxy Primer

Mixing: Temperature of Terroxy Primer and air temperature must be 50-90°F (10 - 32.2°C). Mix two parts Part A (Resin) and one part Part B (Hardener) for three minutes with a low speed electric drill mixing paddle. Avoid whipping air into the product. If thinning is desired, add no more than one quart (.9 liters) of xylene per gallon (3.8 liters) of primer at the time of mixing. Mix only that amount of material that can be used in 40 minutes.

Applications: Remove any standing water from concrete surface. Spread Terroxy Primer at a rate of 200-250 ft² per blended gallon (18.6-23.2 m² per blended 3.8 liters). Apply uniformly to the surface while trying to eliminate puddling. Apply with brush roller or squeegee. Wait until primer is tacky (usually 1 hour minimum), before applying the Trowel. If primer is not going to be topped within open time, broadcast silica sand into resin lightly but uniformly and allow to cure overnight.

Cure Time: Initial Cure: 6-8 hours; Final Cure: 24 hours

Terroxy Binder Resin Trowel

Mixing: Temperature of Terroxy Binder Resin must be 50°F (10°C) or above at time of mixing. Stir each component separately before blending. Mix one part, by volume of Part A with one Part B for three minutes with low speed electric drill and a mixing paddle, until uniform. Mix only that quantity that can be used within its pot life. Slowly add 112 lbs (50.8 kg) of well graded aggregate per 2 gallons of mixed Binder Resin. Mix until aggregate is thoroughly 'wet out'.

Applications: Immediately dump mortar onto substrate and screed to desired thickness. Compact and smooth the mortar using a hand or power trowel.

Cure Time: Allow to cure overnight (a minimum of 24 hours) at 75°F (23.8°C) surface temperature before opening to traffic. Material cures more slowly at lower temperatures.

Terroxy Industrial Broadcast (3/16" Skid Resistant Only)

Mixing: Temperature of Terroxy Binder Resin must be 50°F (10°C) or above at time of mixing. Stir each component separately before blending. Mix one part, by volume of Part A with one Part B for three minutes with low speed electric drill and a mixing paddle, until uniform. Mix only that quantity that can be used within its pot life.

Applications: Immediately pour the mixed material onto the substrate and pull out using a 1/4" v-notched trowel or 1/4" red rubber squeegee at 120 square feet. Allow material to self-level, the surface should be lightly back-rolled with a looped roller to help smooth. Use a spiny roller to aid in the release of air. Begin evenly seeding dry silica Sand (20-40 mesh or other approved Skid resistant aggregate) into the wet resin much the same as grass seed is spread. Sand may be spread by hand or mechanical blower but should be broadcast in such a way that the sand falls lightly into the resin without causing the resin to move. Continue broadcasting to excess until the floor appears completely dry.

Allow to cure, sweep off excess sand with a clean, stiff bristled broom. Clean sand can be saved for future use. All imperfections such as high spots should be smoothed before the application of the grout coat.

NOTE: Dry silica Sand distribution is critical to the success if the application. The floors finished appearance depends on the manner in which the sand has been applied. In grass seed like fashion, allow the sand to fall after being thrown upward and out. DO NOT THROW DOWNWARD AT A SHARP ANGLE USING FORCE.

NOTE: Industrial Trowel may be placed into service after the base coating/broadcast has cured. Grout coats and topcoats can be applied based upon desired texture and finish

Cure Time: Allow to cure overnight (a minimum of 24 hours) at 75°F (23.8°C) surface temperature before opening to traffic. Material cures more slowly at lower temperatures.

Industrial Grout Coating

Mixing: Premix Industrial Coating using a low speed drill and mixing paddle. Mix for one minute and until uniform, exercising caution not to introduce air into the material. Add 2 parts Industrial Coating Part A to 1 part Industrial Coating Part B by volume. Mix with low speed drill and mixing paddle for three minutes and until uniform. To insure proper system cure and performance, strictly follow mix ratio recommendations.

Application: Apply Industrial Coating using a squeegee or trowel and back roll with a 3/8" nap roller at a spread rate of 50-160 square feet per gallon (1.3-4.0 meters squared per liter) to yield 10-30 mils (250-750 microns) making sure of uniform coverage. Take care not to puddle materials and insure even coverage.

Cure Time: Allow to cure overnight (a minimum of 24 hours) at 75°F (23.8°C) surface temperature before opening to traffic. Material cures more slowly at lower temperatures.

Terroxy Industrial Top Coating

Mixing: Premix Industrial Coating using a low speed drill and mixing paddle. Mix for one minute and until uniform, exercising caution not to introduce air into the material. Add 2 parts Industrial Coating Part A to 1 part Industrial Coating Part B by volume. Mix with low speed drill and mixing paddle for three minutes and until uniform. To insure proper system cure and performance, strictly follow mix ratio recommendations.

Application: Apply Industrial Coating using a squeegee or trowel and back roll with a 3/8" nap roller at a spread rate of 50-160 square feet per gallon (1.3-4.0 meters squared per liter) to yield 10-30 mils (250-750 microns) making sure of uniform coverage. Take care not to puddle materials and insure even coverage.

Cure Time: Allow to cure overnight (a minimum of 24 hours) at 75°F (23.8°C)surface temperature before opening to traffic. Material cures more slowly at lower temperatures.

TERROXY RESIN SYSTEMS

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 Industrial Trowel, 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 Industrial Trowel is easily cleaned with neutral pH Balance Cleaners or detergents. Routine hand scrubbing is recommended for all surfaces having a Skid 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 Industrial Trowel 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 Industrial Trowel fails to meet this warranty, the liability of Terrazzo & Marble will be limited to replacement of any nonconforming Terroxy Industrial Trowel 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 Industrial Trowel . 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 Industrial Trowel 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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