



DIAMITE TR EPOXY FLOORING

*Trowel-Applied, Heavy-Duty
Industrial Flooring*

1. Product Description

a. **Basic Use:** Diamite TR Epoxy Flooring is an epoxy mortar system used to restore worn and eroded floors to their original condition and to protect from future deterioration. Diamite TR Epoxy Flooring may be applied on any physically sound, clean, and dry substrate including concrete, brick, terrazzo, marble, metal or wood. It may be used as a chemical-resistant grout for joints between quarry or ceramic tile. Diamite TR Epoxy Flooring is completely immune to the corrosive action of acids and alkalis in concentrations normally found in contact with floor surfaces.

b. Features/Benefits:

- Contains no volatile solvents permitting interior applications with virtually no fire hazard or toxic odor.
- USDA approved as an acceptable floor resurfacing compound in processing and storage areas for meat and poultry food products.
- 100 percent solids epoxy complies with VOC regulations.
- May be applied from a featheredge to several inches thick, allowing for total floor patching and resurfacing.
- Rapid cure time permits drastically reduced operational downtime and allows for exposure to traffic in less than 16 hours at 70°F (21°C).
- Varying application thicknesses save labor installation costs by eliminating the need for workmen to return to the job site for multiple applications.
- Mortar consistency for forming coves and curbs without slumping.
- Epoxy and natural aggregate system is highly resistant to impact. Does not chip, flake or peel when exposed to heavy traffic.
- Produces a seamless and slip-resistant flooring surface while offering protection against chemical attack
- Easy clean-up with soap and water.

c. **Typical Applications:** Food processing plants, bakeries, cafeterias, kitchens, slaughter houses, supermarkets, penitentiaries, schools, universities, hospitals, manufacturing plants, chemical processing plants,

laboratories, morgues, poultry plants, breweries and bottling plants.

d. **Limitations:** Diamite TR Epoxy Flooring should not be used outside or where exposure to frequent freezing and thawing is possible. Diamite TR Epoxy Flooring is not recommended for areas at temperatures above 140°F (60°C).

e. **Composition:** Diamite TR Epoxy Flooring is a multi-component system consisting of 100% solids epoxy with prepackaged and specially graded natural aggregate.

f. **Color/Appearance:** Diamite TR Epoxy Flooring is available in the following standard colors: black, red, medium gray, concrete-tone gray and clear. For custom colors, contact your local distributor or factory representative.

2. Packaging

Diamite TR Epoxy Flooring is supplied in units, each containing the proper proportions of liquid components and natural aggregate. Standard packaging information is shown below:

<i>Unit Size</i>	<i>Binder</i>	<i>Activator</i>	<i>Aggregate</i>	<i>Shipping Wt.</i>
<i>1 gal. (3.8 liter)</i>	<i>1/2 gal. (1.9 liter)</i>	<i>1/2 gal. (1.9 liter)</i>	<i>50 lbs. (22.7 Kg)</i>	<i>62 lbs. (28 Kg)</i>
<i>2 gal. (7.6 liter)</i>	<i>1 gal. (3.8 liter)</i>	<i>1 gal. (3.8 liter)</i>	<i>100 lbs. (45.4 Kg)</i>	<i>124 lbs. (56 Kg)</i>
<i>10 gal. (37.9 liter)</i>	<i>5 gal. (18.9 liter)</i>	<i>5 gal. (18.9 liter)</i>	<i>500 lbs. (227 Kg)</i>	<i>613 lbs. (278 Kg)</i>
<i>100 gal. (378.5 liter)</i>	<i>50 gal. (189.3 liter)</i>	<i>50 gal. (189.3 liter)</i>	<i>5,000 lbs. (2,268 Kg)</i>	<i>6,130 lbs. (2,780 Kg)</i>

3. Estimating/Coverage

The recommended coverage rate for each unit is shown below:

<i>Unit Size</i>	<i>Coverage at 1/4 in. (6.4 mm)</i>
<i>1 gal. (3.8 liter)</i>	<i>24 sq. ft. (2.2 sq. m)</i>
<i>2 gal. (7.6 liter)</i>	<i>48 sq. ft. (4.4 sq. m)</i>
<i>10 gal. (37.9 liter)</i>	<i>240 sq. ft. (22.3 sq. m)</i>
<i>100 gal. (379 liter)</i>	<i>2,400 sq. ft. (223 sq. m)</i>

For best color uniformity, top coat with Diamite Brushkote, Diamite Brushkote VOC or Diathane of the same color.

4. Technical Data

a. Tensile Strength: ASTM D 638, 28 days; 6,800 psi (46.9 MPa).

b. Compressive Strength: ASTM C 109, 2 in. (50 mm) cubes at 70°F (21°C).

<i>Age</i>	<i>Strength</i>
<i>6 hours</i>	<i>200 psi (1.4 MPa)</i>
<i>1 day</i>	<i>5,500 psi (37.9 MPa)</i>
<i>7 days</i>	<i>9,500 psi (65.5 MPa)</i>
<i>28 days</i>	<i>11,150 psi (76.9 MPa)</i>

c. Ultimate Elongation: ASTM D 638; 4.65%.

d. Bond Strength: ASTM C 882 at 7 days psi (MPa) 3,200 psi (22.1 MPa).

e. Flexural Strength: ASTM D 790; 15,150 psi (104.5 MPa).

f. Shore D. Hardness: ASTM D 2240; 89.

5. Directions for Use

a. Preparation: The surface to be treated must be physically sound, thoroughly clean, free of oil, wax, loose paint, rust, scale, and completely dry. New concrete must be thoroughly cured for at least 28 days before starting surface preparation. Base concrete must be shotblasted or acid-etched with Bitesin. All acid-etched concrete surfaces must be rinsed and neutralized with potable water and allowed to completely dry.

b. Priming: All concrete to receive Diamite TR Epoxy Flooring must be primed with Diamite Primer and allowed to dry tack free.

c. Mixing: Thorough blending of all components is essential. Use a power drill with a Metco Jiffy mixing paddle. First, mix the binder separately; then, mix the activator separately. Next, add the mixed activator to the mixed binder and thoroughly blend for at least two minutes at revolution speeds that will not entrap air bubbles into the freshly mixed Diamite TR Epoxy Flooring. Let stand for two minutes and mix again for one additional minute.

d. Aggregate Mixing: After the liquid components are thoroughly mixed, add the specially graded aggregates into the mixed epoxy liquid. Note: Do not add any aggregate into binder or activator that has not been properly proportioned and mixed. The Metco Batch Mixer, which utilizes a 5-gal. (18.9 liter) pail, is ideal for efficient mixing of the aggregate into the mixed epoxy compound. For larger batches, a paddle type mortar mixer should be used. Continue mixing until all aggregate is completely coated with epoxy.

e. Mortar Application: After the substrate has been primed with Diamite Primer, place the mixed epoxy mortar. At the normal thickness of about 1/4 in. (6.4 mm), the mortar can be placed with a trowel or float. For thicker applications, it is good practice to use screed bars or rails for a uniform finished surface free of high and low areas. Extreme care should be exercised to leave the surface free of trowel marks, ridges and other imperfections. A power trowel can be used to finish large areas.

f. Cure Time: Diamite TR Epoxy Flooring will harden in 8 hours at 70°F (21°C), but must be protected from moisture and traffic for at least 12 hours. The floor is then ready for service

g. Clean-up: Waterzall Concentrate and water may be used for cleaning tools and equipment.

h. Maintenance: Diamite TR Epoxy Flooring surfaces should be cleaned with a Waterzall Concentrate and water solution. Waterzall Concentrate may also be used at full strength to remove built-up deposits and stains. Diamite TR Epoxy Flooring may be reapplied to itself.

6. Availability

Diamite TR Epoxy Flooring is normally available immediately from your local distributor or it will be shipped within 5 working days upon receipt of order. Custom colors may take up to 8 working days before shipping. Please contact your local Metalcrete representative or call Metalcrete directly for more information.

7. Warranty

Diamite TR Epoxy Flooring is manufactured in strict accordance with the quality control standards of Metalcrete Industries. It is guaranteed to perform as indicated on this data sheet when applied by competent applicators.

8. Technical Service

Metalcrete technical service representatives are available to provide on-site assistance with a minimum three day notice.



Metalcrete Industries

4133 Payne Avenue • Cleveland, Ohio 44103
440-526-5600 • 800-526-5602 • FAX 440-526-5601