



DIAMITE LT MORTAR

*Special Epoxy Mortar for
Low Temperature Applications*

1. Product Description

a. **Basic Use:** Diamite LT Mortar is an epoxy and natural aggregate system used to protect horizontal surfaces against abrasion and chemical attack in low temperature environments. It is usually applied to concrete floors in need of repair due to excessive wear and chemical attack. Diamite LT Mortar may be applied when ambient and substrate temperatures are as low as 20°F (-7°C).

b. Features/Benefits:

- USDA approved as an acceptable floor topping for incident food contact in federally inspected meat and poultry plants.
- Formulation of 100% epoxy solids and specially graded natural silica aggregate for total compliance with VOC regulations.
- Mortar consistency may be used on ramps and sloped floors.
- Excellent adhesive properties permit bonding to most substrates.
- Versatile product formulation permits use as total floor overlay or for small floor or joint repairs.
- Quick setting formulation may be used to set hand rails, dowels, rebar and other anchors in concrete.
- Rapid setting times and very high early age strengths allow floor to be placed into service 24 hours after application when applied at 32°F (0°C).
- Variable application rates permit use from a feather-edge to several inches thick.
- Contains no volatile solvents, permitting interior applications with virtually no fire hazard or toxic odors.
- Completely immune to the corrosive action of acids and caustics in concentrations normally found in contact with floor surfaces.
- Easy clean-up with soap and water.

c. **Typical Applications:** Freezers, cold storage rooms, cold weather anchor grouting, food processing plants, concrete repair/restoration, chemical processing plants, dairies, bottling plants and breweries.

d. **Limitations:** Diamite LT Mortar should not be used at temperatures above 140°F (60°C). Do not use outside as an overlay material.

e. **Composition:** Diamite LT Mortar is a multi-component system consisting of 100% solids epoxy and a prepackaged, specially graded and selected natural silica aggregate.

f. **Color/Appearance:** Diamite LT Mortar is available only in concrete gray.

2. Packaging

Diamite LT Mortar is supplied in one standard 65 lb. (29.5 Kg) unit containing the proper proportions of liquid components and silica aggregate. Standard packaging information is shown below:

<i>Unit Size</i>	<i>Binder</i>	<i>Activator</i>	<i>Natural Aggregate</i>	<i>Shipping Wt.</i>
<i>1 gal. (3.8 liter)</i>	<i>0.75 gal. (2.8 liter)</i>	<i>0.25 gal. (0.9 liter)</i>	<i>55 lbs. (25 Kg)</i>	<i>65 lbs. (29.5 Kg)</i>

3. Estimating/Coverage

The recommended application rate is 1/4 in. (6.4 mm) in thickness as an overlay. Estimating information is shown below:

<i>Unit Size</i>	<i>Coverage at 1/4 in. (6.4 mm)</i>	<i>Yield</i>
<i>1 gal. (3.8 liter)</i>	<i>25 sq. ft. 2.3 (sq. m)</i>	<i>0.510 cu. ft. (0.014 cu. m)</i>

4. Technical Data

a. **Tensile Strength:** ASTM D 638, 28 days; 6000 psi (41.4 MPa).

b. **Compressive Strength:** ASTM C 109, 2 in. (50 mm) cubes.

<i>Age</i>	<i>Strength</i>
<i>6 hours</i>	<i>2,000 psi (13.8 MPa)</i>
<i>1 day</i>	<i>6,000 psi (41.4 MPa)</i>
<i>7 days</i>	<i>7,500 psi (51.7 MPa)</i>
<i>28 days</i>	<i>9,100 psi (62.8 MPa)</i>

c. **Ultimate Elongation:** ASTM D 638; 7.3%.

5. Directions for Use

a. **Preparation:** The surface to be patched or overlaid must be physically and structurally sound, thoroughly clean, free of oil, curing compounds or other deleterious materials that may prevent adhesion. New concrete must be thoroughly cured for at least 28 days before starting surface preparation. Concrete should be mechanically roughened or abraded by shot-blasting or scabbling equipment. An exposed aggregate surface is required for good bonding. All loose particles must be removed by vacuuming or flushing with compressed air and water.

b. **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 epoxy liquid.

c. **Priming:** Apply a small amount of the mixed epoxy liquid (no aggregate) to the base concrete as a primer.

d. **Silica Aggregate and Liquid Mixing:** After the binder and activator are completely mixed, add all the aggregate to the liquid compound and mix until all the aggregate is thoroughly coated with epoxy. The Metco Batch Mixer, which utilizes a 5-gal. (18.9 liter) pail, is ideal for efficient mixing of the aggregate with the epoxy resin.

e. **Application:** After the substrate has been primed, distribute the mixed epoxy mortar onto the area to be overlaid. At the normal thickness of about 1/4 in. (6.4 mm), the mortar may 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 may be used to finish large areas.

f. **Cure Time:** Diamite LT Mortar will harden in 4 hours at 32°F (0°C) but must be protected from moisture and traffic for at least 6 hours. The floor is then ready for service.

g. **Clean-Up:** Either DL Solvent or Waterzall Concentrate and warm water may be used for cleaning tools and equipment.

h. **Maintenance:** Diamite LT Mortar 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 LT Mortar may be reapplied to itself.

6. Availability

Diamite LT Mortar is normally available from your local distributor or will be shipped within 5 working days upon receipt of order. Please contact your local Metalcrete representative or call Metalcrete directly for more information.

7. Warranty

Diamite LT Mortar 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

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