



# DIAMITE TDC

## *Traffic Deck Coating Elastomeric Waterproofing*

### 1. Product Description

a. **Basic Use:** Diamite TDC is a polyurethane system used as a traffic deck coating system to protect concrete from future deterioration due to moisture infiltration and chloride ion attack as well as abrasion. The Diamite TDC system consists of a primer, base coat, intermediate coat (optional) and top coat. Diamite TDC is an elastomer designed to be a waterproofing membrane. Diamite TDC may be applied on any physically sound, clean and dry substrate including concrete, brick, terrazzo, marble, metal or wood. It is completely immune to the corrosive action of salts, acids and alkalis in concentrations normally found in contact with concrete surfaces subjected to vehicular or pedestrian traffic.

b. **Features/Benefits:**

- Liquid consistency is easy-to-place with the use of industrial spray equipment, squeegees or rollers.
- May be applied as both a decorative and/or non-slip surface.
- Varying application thicknesses save labor installation costs by eliminating the need for workmen to return to the job site for multiple applications.
- Fluid applied system cures to a firm rubber-like abrasion resistant surface.
- Polyurethane 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 membrane surface while offering excellent protection against moisture and chloride ion attack.
- Excellent ultraviolet light stability allows for use in a variety of outdoor applications.
- Will withstand wide range of temperatures from sub-zero to over 100°F (38°C).
- Waterproofing properties allow for use as an elastomeric coating for roofs and plaza decks.

c. **Typical Applications:** Parking garages, athletic stadiums, balcony/lanai, roof coating, pedestrian walkways, chemical spill containment tanks, maintenance rooms and plaza decks.

d. **Limitations:** Containers that have been opened must be used within 1-2 days. It is not recommended for areas at service temperatures above 140°F (60°C). Do not apply if rain is imminent within 8 hours of completion.

e. **Composition:** Diamite TDC is a multi-component system consisting of aliphatic polyurethane and specially graded slip resistant aggregate.

f. **Color/Appearance:** Diamite TDC is available in nine standard colors including: off-white, concrete-gray, gray, aluminum gray, black, limestone, tan, beige and clear.

### 2. Packaging

Diamite TDC is supplied in 1-gal., 5-gal. and 55-gal. units, each containing the proper proportions of liquid components.

### 3. Estimating/Coverage

Diamite TDC base and intermediate coats should be applied at 50 sq. ft./gal. (1.23 sq. m/liter) which yields a dry film thickness of 30 mils (0.77 mm). Diamite TDC top coat should be applied at no greater than 100 sq. ft./gal. (2.45 sq. m/liter) which yields a dry film thickness of 15 mils (0.38 mm).

### 4. Technical Data

- a. **Elongation:** ASTM D 412, 500%.
- b. **Tensile Strength:** ASTM D 412, 2800 psi (19.3 MPa).
- c. **Flexural Strength:** ASTM D 624, 310 psi.
- d. **Water Absorption:** ASTM D 570, nil.
- e. **Abrasion Resistance:** ASTM D 501, wheels, 1000 cycles with 1.0 kilo weight, 0.001 % loss.
- f. **U.V. Resistance:** Q-Panel Weatherometer; no effect after 2000 hours.
- g. **Modulus:** ASTM D 638, 650 psi (4.5 MPa) @ 100%, 950 psi (6.5 MPa) @ 300%

## 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 should 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 must be rinsed and neutralized with potable water and allowed to completely dry.

b. **Priming:** All concrete to receive Diamite TDC must be primed with Diamite Primer and allowed to dry tack free.

c. **Base Coat Mixing:** Thorough blending of all components is essential. Use a power drill with a Metco Jiffy mixing paddle and thoroughly blend for at least two minutes at revolution speeds that will not entrap air bubbles into the freshly mixed Diamite TDC.

d. **Application of Base Coat:** After the substrate has been primed, pour the Base Coat in strips or ribbons onto the primed surface. The Base Coat is best applied with the Diamite/Lexite Spreader Tool. Note: 1.0 gal. (3.8 liter) should be spread over 50 sq. ft. (4.6 sq. m). The spreading operation should then be followed by rolling with a short-nap or foam-rubber type paint roller. The rolling operation should proceed in one direction with slow, even strokes. Avoid short, quick, back-and-forth strokes such as are commonly employed in paint rolling techniques.

e. **Broadcasting the Non-Slip Aggregate:** Sprinkle the non-slip aggregate into the freshly applied Base Coat. Toss the granules upward so it descends like gentle rain. Continue broadcasting operation until an excess remains standing on the surface. Do not broadcast granules any closer than about 1 to 2 ft. (0.3 to 0.6 m) from the edge of the Base Coat that has just been applied. This insures smooth lapping of each successive batch into the previous one.

f. **Intermediate Coat Preparation:** Allow base coat to cure overnight (16 hours minimum) before starting application of Intermediate Coat. Remove all loose non-slip aggregate that did not adhere firmly to the Base Coat by thoroughly sweeping with a stiff broom.

g. **Intermediate Coat Mixing:** Follow mixing instructions for Base Coat found in item 5c above.

h. **Application of Intermediate Coat:** Follow application instructions for Base Coat in 5d above.

i. **Broadcasting the Non-Slip Aggregate:** Follow 5e instructions.

j. **Top Coat Preparation:** Allow Intermediate Coat to cure overnight (16 hours minimum) before starting application of Top Coat. Remove all loose non-slip aggregate that did not adhere firmly to the Intermediate Coat by thoroughly sweeping with a stiff broom.

k. **Top Coat Mixing:** Follow mixing instructions for Base Coat found in item 5c above.

l. **Application of Top Coat:** After all loose non-slip aggregate has been removed, pour the mixed Top Coat in strips or ribbons onto granular surface. Note: 1.0 gal. (3.8 liter) should be spread over 100 sq. ft. (9.3 sq. m). A flexible squeegee should be used for spreading the Top Coat downward into the voids between the granules. Spread the Top Coat until uniform. After the squeegee operation, roll the Top Coat with a short-nap, or preferably a foam rubber type, paint roller to insure complete uniformity. Allow Top Coat to cure for 48 hours.

m. **Working Time/Pot Life:** Both Diamite TDC Base Coat and Diamite TDC Top Coat should be applied immediately after opening.

n. **Cure Time:** Diamite TDC Base Coat becomes tack-free in approximately 12 hours and may be top coated in 16 hours. Diamite TDC Top Coat achieves final cure time in 3 to 5 days. All cure times are based on ambient and substrate temperature at 70°F (21°C) and relative humidity of 50% or greater.

o. **Clean-up:** DL Solvent may be used for cleaning tools and equipment.

p. **Maintenance:** Diamite TDC surfaces should be cleaned with a Waterzall Concentrate and water solution. Waterzall Concentrate may also be used at full concentrate strength to remove built-up deposits and stains. Diamite TDC Top Coat may be reapplied to itself.

## 6. Availability

Diamite TDC 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 TDC 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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