



DIATHANE SLURRY TC

Water Based Urethane Cement Slurry Top Coat

1. Product Description

a. Basic Use: Diathane Slurry TC is a four-component water based urethane top coat designed to be applied over Diathane Slurry. Diathane Slurry and Diathane Slurry TC have exceptional wear performance and resistance to heat. Diathane Slurry TC is intended for indoor applications subjected to heavy foot traffic and hand cart traffic. The Diathane Slurry TC flooring system produces a seamless, slip-resistant surface while offering protection from abrasion and chemical attack.

b. Features/Benefits:

- Withstands moderate thermal shock, impact, and abrasion.
- Stable in chemically aggressive environments.
- Excellent resistance to freeze-thaw cycles.
- Cures at temperatures as low as 45°F (7.2°C).
- Can be returned to service within 12 hours and will accommodate heavy foot traffic in 24 hours.
- Withstands heat exposure up to 200°F (93.3°C).
- Slightly textured finish provides slip resistance in areas subjected to washdowns.
- Applied thickness is typically between 1/8" (3.2 mm) and 3/8" (9.5 mm).

c. Typical Applications: Food processing, chemical processing plants, water treatment plants, breweries, commercial kitchens, bottling plants, dairy processing, industrial bakeries, and penitentiaries.

d. Limitations: Do not apply this material outdoors or where direct sunlight is prevalent. Do not install over wet concrete. Base concrete must be cured for at least 15 days prior to Diathane Slurry application. Concrete substrate must be at least 5°F (-15°C) above dew point during application.

e. Composition: Diathane Slurry TC is a four-component water based urethane top coat system.

f. Color/Appearance: Concrete gray, tile red, or natural tan color with a matte finished surface.

2. Packaging

Diathane Slurry TC is supplied in units, each containing proper proportions of liquid components, graded aggregate, and pigment. Shipping weight for one unit is 26-lbs. (11.8-kg).

3. Estimating/Yield

Diathane Slurry TC formulation with the following proportions and yields:

	<i>Standard Unit</i>
<i>Activator Liquid</i>	<i>7.25-LBS. Packaged in a 1-GAL. (3.8-Liter) Can</i>
<i>Binder Liquid</i>	<i>7.25-LBS. Packaged in a 1-GAL. (3.8-Liter) Can</i>
<i>Graded Aggregate</i>	<i>1 x 9.25-LBS. (4.3-KG) Bag</i>
<i>Powder Pigment</i>	<i>1 x 1-LB. (454 Gram) Bag</i>
<i>Volume Yield</i>	<i>0.28 feet³ (0.008 meter³)</i>
<i>Area Yield</i>	<i>160 feet² (14.8 meter²) per mixed unit</i>

4. Technical Data

a. Compressive Strength: ASTM C 579: 5,900 psi (40.7 MPa).

b. Flexural Strength: ASTM C 580: 2,900 psi (20 MPa).

c. Tensile Strength: ASTM C 307: 1,250 psi (8.6 MPa).

d. Bond Strength: ASTM D 4541: 100% Concrete Failure.

e. Impact Resistance: ASTM D 4226: 160 inch - pounds.

f. Fungi Growth: ASTM G 21: Passes rating 1.

g. Hardness: Shore D 80.

h. Working Time: 15 minutes after mixing.

i. Spot Testing: ASTM D 1308: No physical damage on surface when exposed to mustard, ketchup, lactic acid, vinegar, and lemon juice.

j. Chemical Resistance:

<u>Chemical Name</u>	<u>24 Hour Immersion</u>
Acetic Acid 10%	Passed
Nitric Acid 30%	Passed
Sodium Hydroxide 50%	Passed
Sulfuric Acid 30%	Passed
Xylene	Passed

5. Directions for Use

a. Preparation: Diathane Slurry TC is designed to be applied over Diathane Slurry and Diathane Mortar urethane cement flooring systems. The surface to be treated must be physically sound, thoroughly clean, free of oil, wax, loose paint, rust, scale, and completely dry.

b. Bonding: No separate bonding agent is needed.

c. Ambient Conditions: For best results, ambient temperature should be between 45°F (7°C) and 85°F (30°C). Humidity must be below 85%. Contact Metalcrete Industries for recommendations outside these ranges.

d. Mixing: For best results, do not modify units. Use the entire pre-packaged kit as outlined on this technical data sheet. The Activator Liquid should be poured into a 5-gallon (18.9-liter) mixing pail. Add one bag of Powder Pigment. Using a mechanical drill and mixing paddle, mix until color is consistent throughout. Next, add the Binder Liquid into the pail and blend for at least 90 seconds at revolution speeds that will not entrap air bubbles into the freshly mixed Diathane Slurry TC liquids. Let stand for 90 seconds and blend again for one additional minute. Proper blending is critical to ensure good and complete curing. Gradually add the filler aggregate component into the liquid mixture and blend thoroughly until all particles are thoroughly coated. After mixing, transfer the mixed material to another pail and remix. The Diathane Slurry TC is now ready for placement. Metalcrete Industries does not recommend mixing more than three units at one time.

e. Application: Immediately after mixing, distribute the mixed Diathane Slurry TC material onto the floor in ribbons. Using a squeegee, apply the material at the recommended application rate of 80 square feet / gallon (1.96 square meter / liter). The spreading operation should then be followed by rolling with a shortnap roller to ensure uniformity. 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 technique.

f. Cure Time: At 77°F (25°C), Diathane Slurry TC will accommodate light foot traffic in 12 hours and heavy foot traffic in 24 hours. Diathane Slurry TC is fully cured in 7 days. Until the floor is fully cured, only subject the floor to light foot traffic and non-harsh chemical exposure. Keep the floor dry for the full cure cycle.

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

h. Maintenance: Diathane Slurry TC surfaces should be cleaned with an industrial detergent. Test the cleaner prior to application as some cleaners can effect surface color.

6. Availability

Diathane Slurry TC is normally available immediately from your local distributor or it will be shipped within 7 to 10 working days upon receipt of order. Please contact your local Metalcrete representative or call Metalcrete Industries directly for more information.

7. Warranty

Diathane Slurry TC 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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