



DIATHANE

Heavy-Duty Industrial Urethane Floor Coating

1. Product Description

a. **Basic Use:** Diathane is a high performance urethane coating intended to provide protection against abrasion and harsh chemical attack. Diathane may be used as a top or finish coat for all Metalcrete epoxy systems. Diathane is an excellent choice where a dense, and easy-to clean surface is required.

b. **Features/Benefits:**

- USDA approved as an acceptable floor coating in processing and storage areas for meat and poultry food products.
- Urethane-based coating offers excellent resistance to ultraviolet light attack and weathering.
- Excellent chemical resistance provides protection in harsh environments.
- High gloss surface is resistant to abrasion while offering a wide range of decorative standard colors.
- Non-slip finish is achieved by simply adding silica quartz aggregate during the application process.
- Provides a durable finish or top coat for most epoxy flooring compounds, permitting application outside when ultraviolet color stability is a factor.
- Dense surface resists mildew and bacteria growth.

c. **Typical Facilities:** Sewage and water treatment plants, manufacturing plants, laboratories, airline maintenance hangars, mechanical rooms, penitentiaries, chemical processing plants, pharmaceutical plants, food processing plants, bottling plants, dairies and bakeries.

d. **Limitations:** Diathane should not be applied directly onto unprimed concrete surfaces. Interior applications require good ventilation. Do not apply when substrate and ambient temperatures are below 50°F (10°C).

e. **Composition:** Diathane is a two component solvent-based aliphatic urethane having the consistency of conventional paint.

f. **Color/Appearance:** Diathane is available in a wide range of standard colors including: black, blue, light blue, brown, dark brown, light brown, medium gray, charcoal gray, concrete-tone gray, dark gray, green, light reflective, red, safety yellow, white and clear. Custom colors are available at additional cost when quantities exceed 100 gal. (379 liter).

2. Packaging

Diathane is supplied in units, each containing the proper proportions of liquid components. Standard packaging information is shown below:

Unit Size	Binder	Activator	Shipping Wt.
3 gal. (11.4 liter)	2 gal. (7.6 liter)	1 gal. (3.8 liter)	40 lbs. (18.1 Kg)
15 gal. (56.8 liter)	10 gal. (37.9 liter)	5 gal. (18.9 liter)	195 lbs. (88.5 Kg)

3. Estimating/Coverage

The recommended coverage rate is 300-350 sq. ft./gal. (7.4-8.6 sq. m/liter) for each unit size .

Unit Size	Coverage
3 gal. (11.4 liter)	900-1,050 sq. ft. (83.6-97.5 sq. m)
15 gal. (56.8 liter)	4,500-5,250 sq. ft. (418-488 sq. m)

4. Technical Data

Resistance to Solvents and Chemicals	
-ACIDS-	-SOLVENTS-
Acetic (Use Diamite AC) -----NR	Acetone -----NR
Chromic -----A	Cellosolve -----NR
Citric 10% -----A	Ethyl Alcohol -----A
Hydrochloric 10% -----A	Methyl Ethyl Ketone -----NR
Hydrochloric Conc. -----D	Mineral Spirits -----A
Hydrochloric Vapor-----A	Toluene -----A
Fatty Acid -----A	Xylene-----A
Lactic 10% -----A	-PETROLEUM DERIVATIVES-
Muriatic -----A	Aircraft Hydraulic Fluid -----A
Nitric Below 5% -----D	Brake Fluid -----A
Nitric Above 5% -----NR	Fuel Oil -----A
Oleic -----A	Gasoline -----A
Phosphoric 50%-----A	Transmission Fluid -----A
Sulphuric 10% -----A	-MISCELLANEOUS-
Sulphuric 50% -----D	Animal Fats -----A
Sulphuric Conc. -----NR	Calcium Chloride -----A
-ALKALIS-	Detergent Solutions -----A
Ammonium Hydroxide 20%--A	Formaldehyde 37%-----NR
Ammonia Vapor -----A	Glycerine -----A
Calcium Hypochlorite -----A	Salt Solutions -----A
Caustic Cleaners -----A	Urine -----A
Sodium Hydroxide 20% -----A	Vegetable Oil -----A
Sodium Hypochlorite 5%-----A	Water -----A
Key: A-Unaffected, D-Discolored; Not Attacked, NR-Not Recommended	

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. Base concrete should be mechanically abraded by shotblasting or thoroughly 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 Diathane 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 Diathane. Let stand for two minutes and blend again for two additional minutes.

d. **Application:** After the substrate has been primed with Diamite Primer or coated with any other intermediate epoxy coating or overlay, apply the mixed Diathane by rolling with a short-nap paint roller to assure 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 techniques.

e. **Working Time/Pot Life:** All mixed Diathane should be applied within 2 hours after mixing at 70°F (21°C).

f. **Cure Time:** Diathane becomes tack-free in approximately 8 hours and may be re-coated at this time if additional thickness or mils are desired. The Diathane surface may be exposed to light traffic 18 hours after final application of the coating. Final cure time requires 3 to 5 days. All cure times are based on ambient and substrate temperatures at 70°F (21°C).

g. **Skidproofing:** Anti-skid aggregate may be broadcast into the coating while it is still fresh. Continue until an excess of aggregate remains standing on the surface. After the base coat of Diathane and anti-skid aggregate has hardened, remove all excess aggregate by sweeping with a stiff broom. Apply one additional coat of Diathane to thoroughly lock in place all aggregate and provide a uniform appearance.

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

i. **Maintenance:** Diathane surfaces should be cleaned with a Waterzall Concentrate and water solution. Waterzall may also be used at full strength to remove built-up deposits and stains. Diathane may be reapplied to itself.

6. Availability

Diathane is normally available immediately from your local distributor or it 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

Diathane 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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