



# EUCOTHANE

## HIGH-PERFORMANCE POLYURETHANE COATING FOR CONCRETE AND METAL

EUCLID CHEMICAL

### DESCRIPTION

**EUCOTHANE** is a two component, solvent based, polyester/aliphatic polyurethane coating that offers outstanding abrasion resistance, excellent flexibility, color stability and weather resistant characteristics. It offers very good chemical resistance without compromising on aesthetics. Ideal as a topcoat for most Euclid Chemical epoxy, urethane and some masonry coatings, **EUCOTHANE** provides excellent anti-graffiti properties.

### PRIMARY APPLICATIONS

- Airport hangar floors
- Bridge structures
- Clean rooms
- Truck/auto repair bays
- Manufacturing plants
- Laboratories
- Warehouses
- Walls/floors

### FEATURES/BENEFITS

- Excellent cleanability
- Good chemical resistance
- Anti-graffiti coating

### TECHNICAL INFORMATION

The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.

<b>Mix ratio (A:B) by volume</b>	2 to 1
<b>VOC Content (Clear Gloss, Colors)</b>	335 g/L
<b>VOC Content (Clear Satin)</b>	447 g/L
<b>Viscosity, mixed cp</b>	200 to 600
<b>Mixed solids % by wt</b>	
70% (colors), 60% (clear gloss), 54% (clear satin)	
<b>Pot life (1.5 gal volume)</b>	2 to 4 hours
<b>Hardness, Shore D</b>	62
<b>Tack Free Time</b>	4 to 6 hours
<b>Light Foot Traffic</b>	14 - 24 hours
<b>Final Cure/Heavy Traffic</b>	3 to 5 days
<b>Flexibility 1/8" (3.2 mm) Mandrel</b>	No cracks
<b>Taber Abrasion</b>	
CS17 wheel, 1000 g load, 500 cycles	22 mg loss
<b>Impact Resistance</b>	
Gardner Impact, 160 in/lb	Passes

#### Chemical Resistance

ACIDS	RATING	MISCELLANEOUS	RATING
Acetic Acid 5%	2	Detergent Solution	3
Citric Acid 5%	3	Ethylene Glycol	3
Hydrochloric 10%	3	Propylene Glycol	3
Nitric Acid 5%	3	Vegetable Oil	3
Phosphoric 20%	3	Gasoline	3
Sulfuric 10%	3		
<b>SOLVENTS</b>			
Ethyl Alcohol 95%	3		
Ethyl Acetate	NR		
Methanol	1		
Methyl Ethyl Ketone	NR		
Mineral Spirits	3		
Methylene Chloride	NR		
Toluene	2		
Xylene	3		
Trichloroethane	2		
Isopropyl Alcohol	1		

1 = Incidental Contact (8 hrs)

2 = Splash &amp; Spill (72 hrs)

3 = Extended Exposure (7 days)

D = Discoloration may occur

NR = Not Resistant

**Appearance:** Light Gray, Concrete Gray, Dark Gray, Tile Red, White, Black, Tan, Clear Gloss and Clear Satin are standard colors. Special or custom colors are available subject to minimum quantity orders.

### PACKAGING

**EUCOTHANE** is packaged in 3 gal (11.3 L) cases.

### SHELF LIFE

1 year in original, unopened containers

### SPECIFICATIONS/COMPLIANCES

Canadian Food Inspection Agency

### COVERAGE

300 to 500 ft<sup>2</sup>/gal (7.4 to 12.3 m<sup>2</sup>/L)

**Note:** Coverage rates are approximate. Actual coverage depends on temperature, texture, and substrate porosity.

## DIRECTIONS FOR USE

**Surface Preparation:** The surface must be structurally sound, clean and free of grease, oil, curing compounds, soil, dust and other contaminants. See note in "Precautions/Limitations" section if coating is to be placed over old/existing epoxy or urethane coatings. New concrete and masonry must be at least 28 days old. Surface laitance must be removed. Concrete surfaces must be roughened and made absorptive, preferably by mechanical means, and then thoroughly cleaned of all dust and debris. If the surface was prepared by chemical means (acid etching), a water/baking soda or water/ammonia mixture, followed by a clean water rinse, must be used for cleaning, in order to neutralize the substrate. The Concrete Surface Profile (CSP) will be determined by the requirements of the epoxy coating applied before the EUCOTHANE application. Allow substrate to dry before coating application. Following surface preparation, the strength of the surface can be tested if quantitative results are required by project specifications. An elcometer or similar tensile pull tester may be used in accordance with ASTM C1583, and the tensile pull-off strength should be at least 250 psi (1.7 MPa).

Do not apply epoxy or urethane coatings if there is excessive moisture in the concrete, or if the moisture vapor emission rate (MVER) is high. Before application of EUCOTHANE, perform either of these tests: **ASTM F2170** - Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using In-Situ Probes, or **ASTM F1869** - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride. If the relative humidity is 70% or greater, or the MVER is 3 lbs/1000 ft<sup>2</sup>/24 hrs or greater, use a moisture mitigation system such as Dural Aquatight WB. After surface preparation and moisture testing, a test section application is recommended to confirm good adhesion and compatibility of the coating with the surface, and to confirm appearance and aesthetics.

When coating steel, all contamination should be removed and the steel surface prepared to a "near white" finish (SSPC SP10) using clean, dry blasting media.

**EUCOTHANE can not be applied directly to concrete.** If an epoxy coating has not been applied, DURAPRIME WB, DURAL EPOXY PRIMER, or another Euclid Chemical epoxy coating must be used to prime concrete in accordance with the information provided on the technical data sheets.

Old or existing epoxy coatings should be cleaned and lightly sanded prior to application of EUCOTHANE as a seal coat. After sanding, solvent wipe the surface using acetone.

**Mixing:** Mix EUCOTHANE using a low-speed drill and a mixing paddle. Pre-mix Part A and Part B separately for approximately 1 minute each. Combine Part A and Part B in a 2 to 1 ratio by volume, then mix thoroughly for 3 to 5 minutes. Scrape the bottom and sides of the containers at least once during mixing. Do not scrape bottom or sides of the container once mixing operations have ceased; doing so may result in unmixed resin or hardener being applied to the substrate. Unmixed resin or hardener will not cure properly. Do not aerate the material during mixing. To keep aeration to a minimum, the recommended mixing paddles are #P1 or #P2 as found in ICRI Guideline 320.5R-2014.

**Application:** EUCOTHANE can be applied as soon as the previously-applied prime coat of epoxy is tack free, but no later than 18 hours after application of the prime coat. If more than 18 hours have elapsed, the epoxy prime coat should be cleaned and lightly sanded prior to application of EUCOTHANE. After sanding, solvent wipe the surface using acetone. Apply EUCOTHANE using short nap roller, brush, or spray. When spraying, proper safety precautions should be observed. Two coats of EUCOTHANE are recommended for most applications. The second coat can be applied after the first coat has become tack free, typically within 4 to 6 hours after application (at 75°F (24°C)).

Where an anti-skid surface is desired for EUCOTHANE, broadcast approximately 0.5 to 1.0 lbs./ft.<sup>2</sup> (2.4 to 4.9 kg/m<sup>2</sup>) of clean, dry aggregate into the first coat. When the first coat has cured, sweep off excess aggregate. Proceed with the second coat of EUCOTHANE to seal the surface.

Tack free time for EUCOTHANE is 4 to 6 hours (at 75°F (24°C)). EUCOTHANE requires 14 to 24 hours (at 75°F (24°C)) to cure sufficiently for light to moderate traffic.

**Graffiti Removal:** Graffiti removal should not be attempted until at least 72 hours after EUCOTHANE application. Remove graffiti as soon as possible after the graffiti incident by working on small areas at a time. Use commercially available graffiti removers and apply in accordance with manufacturer's instructions.

## CLEAN-UP

Clean tools and application equipment immediately with acetone, xylene, or MEK. Clean spills or drips with the same solvents while still wet. Hardened EUCOTHANE will require mechanical abrasion for removal.

## PRECAUTIONS/LIMITATIONS

- Keep EUCOTHANE away from sparks, open flames, pilot lights, and other sources of ignition
- Provide adequate ventilation and ensure the use of proper protective and safety equipment during application
- If HVAC intake ducts will distribute solvent odor into adjoining areas of the building, care should be taken to block vents
- Keep EUCOTHANE containers closed tightly
- Store EUCOTHANE indoors, protected from moisture, at temperatures between 50°F and 90°F (10°C and 32°C)

- Surface and ambient temperature during coating applications should be between 50°F and 90°F (10°C and 32°C)
- Material temperatures should be at least 50°F (10°C) and rising
- Do not apply EUCOTHANE if surface temperature is within 5°F (3°C) of the dew point in the work area
- Working time and cure time will decrease as the temperature increases, and will increase as the temperature decreases
- Do not thin EUCOTHANE
- When a vapor barrier is utilized in on-grade applications of EUCOTHANE, it must be installed directly under the slab
- Depending on the condition of the substrate, minor surface defects can appear in the coating when applied. Proper surface prep, patching of substrate imperfections, and priming will ensure a better overall finish.
- If coating over old/existing epoxy or urethane coatings, or if more than 24 hours elapses between coats: sand the previous coat, wipe clean, and proceed with coating operations. If old/existing coatings are peeling, flaking, etc., all unsound material must be removed prior to new coating applications.
- Application of a test area is recommended to confirm final appearance and texture of the system with the end user
- EUCOTHANE is not intended for continuous immersion
- Concrete surfaces may darken and give a “wet look” effect after application
- Excessively high film thicknesses and/or moisture may cause surface blistering
- In all cases, consult the product Safety Data Sheet before use

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**WARRANTY:** The Euclid Chemical Company (“Euclid”) solely and expressly warrants that its products shall be free from defects in materials and workmanship for one (1) year from the date of purchase. Unless authorized in writing by an officer of Euclid, no other representations or statements made by Euclid or its representatives, in writing or orally, shall alter this warranty. EUCLID MAKES NO WARRANTIES, IMPLIED OR OTHERWISE, AS TO THE MERCHANTABILITY OR FITNESS FOR ORDINARY OR PARTICULAR PURPOSES OF ITS PRODUCTS AND EXCLUDES THE SAME. If any Euclid product fails to conform with this warranty, Euclid will replace the product at no cost to Buyer. Replacement of any product shall be the sole and exclusive remedy available and buyer shall have no claim for incidental or consequential damages. Any warranty claim must be made within one (1) year from the date of the claimed breach. Euclid does not authorize anyone on its behalf to make any written or oral statements which in any way alter Euclid’s installation information or instructions in its product literature or on its packaging labels. Any installation of Euclid products which fails to conform with such installation information or instructions shall void this warranty. Product demonstrations, if any, are done for illustrative purposes only and do not constitute a warranty or warranty alteration of any kind. Buyer shall be solely responsible for determining the suitability of Euclid’s products for the Buyer’s intended purposes.