



# EUCOPOXY TUFCOAT

CHEMICALLY RESISTANT, HIGH-PERFORMANCE EPOXY COATING

EUCLID CHEMICAL

COATINGS - INDUSTRIAL

EUCOPOXY TUFCOAT

MASTER FORMAT #: 09 96 56

## DESCRIPTION

**EUCOPOXY TUFCOAT** is a high-performance epoxy floor coating system designed to provide concrete surfaces with excellent wear resistance in combination with protection against chemical attack. These outstanding properties are further enhanced by the availability of a wide selection of semi-gloss colors for superior aesthetic benefits.

## PRIMARY APPLICATIONS

- Food processing plants
- Warehouse floors
- Manufacturing plants
- Auto/truck repair bays
- Chemical plants
- Mechanical rooms

## FEATURES/BENEFITS

- Provides excellent wear under traffic
- Excellent resistance to a variety of chemicals
- Hardens to a semi-gloss finish
- Easy to apply with standard equipment
- Can be applied as a nonslip floor finish
- Available in a variety of colors
- No separate primer required

## TECHNICAL INFORMATION

### Typical Engineering Data

Material Properties @ 70°F (21° C)

**Re-coat time** ..... 2 to 24 hours

**Foot traffic** ..... 24 hours

**Wheel traffic** ..... 48 hours

**Dry to touch** ..... 2 hours

**Pot life** ..... 6 to 8 hours

**Mixing ratio** by volume A to B ..... 1 to 1

**Total solids content** ..... 58%

**Dry film thickness** ..... 3 to 4 mils/coat

**Flexibility** ..... good

**Weathering** ..... very good

### VOC Content

Clear ..... 418 g/L

Colors ..... 430 g/L

**Abrasion Resistance:** Taber Abrader CS-17 wheel with 1,000 gm/500 cycles ..... 30.2 mg loss

**Appearance:** EUCOPOXY TUFCOAT is a 2-part epoxy system consisting of a Part A and a Part B. This product is available in Clear (amber), Concrete Gray, and Tan. After placement and curing, the product has a smooth, semi-gloss appearance.

### CHEMICAL RESISTANCE

Acetic Acid, 5% .....	poor
Alkalies .....	excellent
Ammonia .....	excellent
Battery Acid .....	good
Beer .....	excellent
Bleach .....	excellent
Brake Fluid .....	good
Ethanol .....	poor
Ethylene Glycol .....	excellent
Gasoline .....	excellent
Hydrochloric Acid, 10% .....	good
MEK .....	poor
Methylene Chloride .....	poor
MIBK .....	poor
Nitric Acid, 5% .....	poor
Oil .....	excellent
Phosphoric Acid, 30% .....	poor
Salt water .....	excellent
Skydrol® .....	good
Toluene .....	good
Urine .....	excellent
Xylene .....	excellent

**RATINGS:** Poor - affected within 24 hours; Good - no effect for 24 hours; Excellent - no effect after 2 weeks.

**NOTE:** Where chemical resistance is rated as poor, check the ratings on EUCOTHANE as a possible topcoat for upgraded chemical resistance.

## PACKAGING

EUCOPOXY TUFCOAT is available in 2 gal (7.6 L) kits. The mix ratio is 1 to 1 by volume.

## SHELF LIFE

2 years in original, unopened containers

## SPECIFICATIONS/COMPLIANCES

USDA compliant

## COVERAGE

100 to 250 ft<sup>2</sup>/gal (2.5 to 6.1 m<sup>2</sup>/L) will produce a wet film thickness of 6 to 7 mils (dry film thickness 3.5 to 4 mils)

**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) should be equal to CSP 2-5 in accordance with Guideline 310.2R-2013, published by the International Concrete Repair Institute (ICRI). 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 the coating, perform the “Visqueen test” (ASTM D4263) to check if there is moisture present. If moisture is found to be present during the “Visqueen test”, perform the “calcium chloride test” (ASTM F1869) as a follow-up to determine the MVER. Contact Euclid Chemical if results indicate a MVER greater than 3.0 lbs. per 1,000 square feet per 24 hours. After surface preparation and moisture testing, a test section application of the coating system is recommended to confirm good adhesion and compatibility of the coating with the surface, and also 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.

**Mixing:** Mix EUCOPOXY TUF COAT using a low-speed drill and a mixing paddle. Pre-mix Part A and Part B separately for approximately 1 minutes each. Combine Part A and Part B in a 1 to 1 ratio by volume, then mix thoroughly for 3 minutes. For ease of mixing, add the Part B into the Part A (not the reverse). 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:** See the “Epoxy & Urethane Coatings Application Guide” for installation means and methods. Note that any coverage rates or mixing ratios for epoxy or epoxy-aggregate combinations found in the “Epoxy & Urethane Coatings Application Guide” are approximations, and are for general reference only. For product-specific coverage rates and mixing ratios, refer to this technical data sheet.

Two coats of EUCOPOXY TUF COAT are recommended for most applications. If desired, additional coats of this product or a EUCOTHANE seal coat may be applied just after the initial coating has become tack free, or up to 24 hours later.

Tack free time for EUCOPOXY TUF COAT is 2 to 4 hours (at 70°F (21°C)). EUCOPOXY TUF COAT requires 24 hours (at 70°F (21°C)) to cure sufficiently for foot traffic. 48 hours (at 70°F (21°C)) is required for EUCOPOXY TUF COAT to cure sufficiently for wheel traffic.

## 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 EUCOPOXY TUF COAT will require mechanical abrasion for removal.

## PRECAUTIONS/LIMITATIONS

- Keep EUCOPOXY TUF COAT 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 EUCOPOXY TUF COAT containers closed tightly
- Store EUCOPOXY TUF COAT indoors, protected from moisture, at temperatures between 45°F and 110°F (7°C and 43°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 60°F (16°C) and rising
- Do not apply EUCOPOXY TUF COAT 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 EUCOPOXY TUF COAT
- Do not apply EUCOPOXY TUF COAT to slabs on grade unless an uninterrupted vapor barrier has been installed under the slab

- Do not apply EUCOPOXY TUFÇOAT if the substrate is subject to excessive moisture vapor drive or hydrostatic pressure
- Although EUCOPOXY TUFÇOAT is chemically resistant, surface staining of the coating may occur after contact with some chemicals. Consider the use of a urethane topcoat such as EUCOTHANE for improved stain resistance.
- EUCOPOXY TUFÇOAT will discolor upon prolonged exposure to ultraviolet light and high-intensity artificial lighting. An aliphatic urethane topcoat such as EUCOTHANE can minimize these effects.
- 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
- EUCOPOXY TUFÇOAT components may cause irritation. Avoid contact with eyes and skin.
- 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.