EUCO TAMMOSHIELD

Water-Based, Polyurethane Floor Coating

EUCLID CHEMICAL

Description

EUCO TAMMOSHIELD is a non-yellowing, two-component water-based aliphatic polyurethane coating that provides a glossy, durable surface to concrete and masonry surfaces. It cures by a true thermoset reaction, providing toughness and chemical resistance that far surpasses that of acrylic or one-component water-based urethane sealers.

Primary Applications

- Clear protective topcoat for Eucopoxy and Dural epoxy coatings and vinyl chip flooring systems
- Seal coat for Euclid Chemical architectural wall coatings

Features/Benefits

- Non-yellowing aliphatic formulation
- No odor
- Excellent abrasion resistance
- Provides a glossy, "wet" look
- Can be used on horizontal or vertical surfaces

Technical Information

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

Typical Engineering Data
Viscosity cp .....500 to 800
Working time .....1 to 2 hours
Drying time @ 73ºF (23ºC), 50% RH
Tack free .....4 to 6 hours
Light foot traffic .....8 to10 hours
Complete cure.....24 hours
VOC content (clear gloss) ..... ≤ 50 g/L
VOC content (clear matte) ..... ≤ 50 g/L
Solids by weight 56%
Taber abrasion CS-17 wheel
1000 gram load ..... 78 mg weight loss

Chemical resistance Spot Test on EUCO TAMMOSHIELD after 14 day cure (ASTM 1308)

	Result after 4 hours	Result after 24 hours
10% Acetic Acid	no effect	slight softening
10% Sulfuric Acid	no effect	no effect
MEK	soft, blistered	soft, blistered
IPA	soft	soft
14% Ammonium Hydroxide	no effect	stained
10% Bleach	no effect	no effect
Gasoline	no effect	slight softening
50% Sodium Hydroxide	no effect	no effect

Appearance: EUCO TAMMOSHIELD is available in a clear gloss or clear matte finish. Custom colors are available upon request and subject to minimum order quantities.

Packaging

EUCO TAMMOSHIELD is available in a 5 gal (18.9 L) unit and in a case of two 1 gal (3.8 L) units.

Shelf Life

1 year in original, unopened containers

Specifications/Compliances

Complies with all U.S. EPA and local VOC regulations, including OTC, Maricopa County and California (CARB and SCAQMD)

Coverage

300 to 400 ft^2/gal (7.4 to 9.8 m^2/L)
Note: Coverage rates are approximate. Actual coverage depends on temperature, texture, and substrate porosity.

19215 Redwood Road • Cleveland, OH 44110
800-321-7628 t • 216-531-9596 f
www.euclidchemical.com

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 EUCO TAMMOSHIELD 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 EUCO TAMMOSHIELD, 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^2/24 hrs or greater, use a moisture mitigation system such as Dural Aquatight 100 PLUS or 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.

EUCO TAMMOSHIELD 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 EUCO TAMMOSHIELD as a seal coat. After sanding, solvent wipe the surface using acetone.

Mixing: Mix EUCO TAMMOSHIELD using a low-speed drill and a mixing paddle. Pre-mix Part A and Part B separately for approximately 1 minute each. Combine all of Part A with all of Part B, then mix thoroughly for 3 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. Allow mixed EUCO TAMMOSHIELD to stand for 10 minutes before use.

Application: EUCO TAMMOSHIELD can be applied as soon as the previously-applied prime coat of epoxy is tack free, but no later than 24 hours after application of the prime coat. If more than 24 hours have elapsed, the epoxy prime coat should be cleaned and lightly sanded prior to application of EUCO TAMMOSHIELD. After sanding, solvent wipe the surface using acetone. Apply EUCO TAMMOSHIELD using short nap roller, foam roller/applicator, brush, or airless sprayer. Redistribute or remove puddles or excess material before it dries.

Application over new coats of TAMMSCOAT should be done after the TAMMSCOAT has cured for 24 hours. Application over old/existing TAMMSCOAT should be done after the surface has been thoroughly cleaned and is dry.

Tack free time for EUCO TAMMOSHIELD is 4 to 6 hours (at 73°F (23°C)). EUCO TAMMOSHIELD requires 8 to 10 hours (at 73°F (23°C)) to cure sufficiently for light foot traffic. Complete cure is at 24 hours (at 73°F (23°C)).

Clean-Up

Clean tools and application equipment immediately with water. Clean spills or drips with acetone, xylene, or MEK while still wet. Hardened EUCO TAMMOSHIELD will require mechanical abrasion for removal.

Precautions/Limitations

- Store EUCO TAMMOSHIELD 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 EUCO TAMMOSHIELD 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 EUCO TAMMOSHIELD
- When a vapor barrier is utilized in on-grade applications of EUCO TAMMOSHIELD, 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
- EUCO TAMMOSHIELD is not recommended for asphalt surfaces
- Concrete surfaces may darken and give a "wet look" effect after application
- In all cases, consult the product Safety Data Sheet before use

Rev. 04.21