



EUCALID CHEMICAL

EUCOTHANE HS

HIGH-PERFORMANCE, HIGH-SOLIDS, LOW-ODOR
POLYURETHANE COATING FOR CONCRETE

PACKAGING

1.25 gal (4.7 L) unit
Code: 154HS 125

5 gal (18.9 L) unit
Code: 154HS 05

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 HS will require mechanical abrasion for removal.

SHELF LIFE

1 year in original, properly stored, unopened package

DESCRIPTION

EUCOTHANE HS is a two component, high-solids, aliphatic polyurethane coating that offers outstanding abrasion resistance, excellent flexibility, color stability, and very low odor in comparison to traditional solvent-based urethanes. It offers very good chemical resistance without compromising on aesthetics. EUCOTHANE HS is ideal as a topcoat for Euclid Chemical epoxy and urethane coatings.

PRODUCT CHARACTERISTICS

PRIMARY APPLICATIONS

- Commercial flooring
- Showrooms
- Lobbies
- Vestibules
- Manufacturing plants
- Warehouses
- Auto repair bays
- Walls/floors

FEATURES/BENEFITS

- Very low odor
- Good chemical resistance
- Excellent abrasion resistance

APPEARANCE

EUCOTHANE HS will dry to be a clear, high-gloss film. A small test area is strongly recommended to confirm appearance prior to beginning full application.

COVERAGE

ft ² /gal (m ² /L)
450 to 550 (11 to 13.5)

Note: Coverage rates are approximate. Actual coverage depends on temperature, texture, and substrate porosity. Proper coverage rates/film thickness with Eucothane HS is critical. Perform a test section prior to full application to ensure that film thickness is correct, as over-application of Eucothane HS can lead to wrinkles and other surface defects.

TECHNICAL INFORMATION

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

Test Method	Test Property	Values
ASTM D4060	Abrasion Resistance (CS-17 wheel)	1,000 g, 1,000 cycles 15 mg loss
N/A	Final Cure (heavy traffic)	5 to 7 days
ASTM D3363	Hardness	2H to 3H
N/A	Light Foot Traffic	16 to 24 hours
N/A	Mix Ratio (by volume A:B)	4:1
N/A	Mixed Solids (by volume)	90%
N/A	Recoat	8 to 10 hours
N/A	VOC Content	<100 g/L
N/A	Working Time	2 hours

CHEMICAL RESISTANCE

1 = Incidental Contact (8 hrs) 2 = Continuous Splash and spill (72 hrs) D = Discoloration may occur

Acetic Acid, 5%	1	Iodine	2
Acetone	1	Lactic Acid, 15%	2
Beer	2	MEK	1
Betadine	2	Nitric Acid, 10%	2
Bleach	1D	Orange Juice	2
Brake Fluid	2	Peroxide, 35%	2
Citric Acid, 30%	2	Phosphoric Acid, 85%	1
Citric Acid, 40%	1	Skydrol®	2
Crude Oil	2	Sodium Hydroxide, 50%	2
Diesel	2	Sulfuric Acid, 20%	2
Ethylene Glycol	2	Toluene	2
Fatty Acid	2	Urea	2
Gasoline	2	Vinegar	1
Hydrochloric Acid, 15%	2	Xylene	2

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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 HS 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 HS, 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 ft²/24 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.

EUCOTHANE HS 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 HS as a seal coat. After sanding, solvent wipe the surface using acetone.

Mixing: Mix EUCOTHANE HS 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 4:1 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 HS can be applied as soon as the previously-applied prime coat of epoxy has cured for a minimum of 12 hours, but no later than 18 hours after application of the prime coat. This to ensure that there is no improper reaction between Eucothane HS and the epoxy surface. If more than 18 hours have elapsed, the epoxy prime coat should be cleaned and lightly sanded prior to application of EUCOTHANE HS. After sanding, solvent wipe the surface using acetone. Apply EUCOTHANE HS using a 1/4" nap roller, brush, or spray. When spraying, proper safety precautions should be observed. Two coats of EUCOTHANE HS are recommended for most applications. The second coat must be applied within the recoat window of 8 to 10 hours (at 75 °F (24 °C)).

EUCOTHANE HS is a moisture cure urethane. Relative humidity levels will significantly affect cure speed.

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PRECAUTIONS/LIMITATIONS

- Keep EUCOTHANE HS 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 odor into adjoining areas of the building, care should be taken to block vents
- Keep EUCOTHANE HS containers closed tightly
- Store EUCOTHANE HS 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 HS 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 and humidity increases, and will increase as the temperature and humidity decreases
- Do not thin EUCOTHANE HS
- When a vapor barrier is utilized in on-grade applications of EUCOTHANE HS, 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 8 to 10 hours (at 75 °F, 50% RH) 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 HS is not intended for continuous immersion
- 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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