DURALKOTE 240

High Build, ANSI Standard 61 Certified, Flexible Epoxy Coating

EUCLID CHEMICAL

Description

DURALKOTE 240 is a two-component, 100% solids, high performance epoxy coating system designed for use on concrete floors and walls. DURALKOTE 240 is flexible, offers exceptional chemical and abrasion resistance, and provides excellent adhesion to properly prepared surfaces. DURALKOTE 240 produces a glossy, tile-like, easily maintained surface. DURALKOTE 240 is available in 2 standard colors, and in a Neutral Base that can be colored with EUCLID UNIVERSAL COLOR PACKS; available in 33 standard colors.

Primary Applications

- Showrooms
- Mechanical rooms
- Truck/auto bay areas
- Warehouse floors
- Chemical processing and manufacturing plants
- Water treatment facilities
- Food service plants

Features/Benefits

- High build
- Chemical resistance
- Glossy, tile-like finish
- ANSI Standard 61 certified
- 33 colors available using color packs

Technical Information

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

Mixing Ratio (A:B, by volume)	1:1
VOC Content	≤ 50 g/L
Viscosity Mixed, cp	3,000 to 5,000
Pot Life full unit, minutes	15 to 25
Gel Time (100g sample), minutes	30 to 40
Tack Free Time 15 mils, hours	4 to 6
Hardness ASTM D2240, Shore D	75 to 85
Tensile Strength ASTM D638, psi (MPa)	1,800 to 2,000 (12.4 to 13.8)
Tensile Elongation ASTM D638, % at break	15 to 25

Appearance: DURALKOTE 240 standard colors are Light Gray and Tan (see EUCLID UNIVERSAL COLOR CHART). DURALKOTE 240 is also available in a Neutral Base that can be colored using EUCLID UNIVERSAL COLOR PACKS, which are available in 33 standard colors. See the EUCLID UNIVERSAL COLOR CHART for available colors.

Chemical Resistance

ACIDS	
Acetic 10%	3D
Chromic 10%	2D
Citric 10%	3D
Formic 25%	1
Hydrochloric 10%	2D
Lactic 85%	2D
Nitric 10%	3D
Phosphoric 10%	3
85%	NR
Sulfuric Acid 10%	3D
50%	3D
98%	NR
Hydrofluoric 10%	2D
SOLVENTS	
Ethyl Alcohol 95%	1
Ethyl Acetate	NR
Methanol	1
Methyl Ethyl Ketone	NR
Mineral Spirits	4
Methylene Chloride	NR
Toluene	1
Xylene	1
Trichloroethane	2
ALKALIES/SALTS	
Ammonia 29%	4
Potassium Hydroxide 50%	4
Sodium Hydroxide 50%	4
Detergent Solution	4
Ammonium Sulfate 50%	4
Sodium Chloride 50%	4
Ferric Chloride 50%	3D
Sodium Hypochlorite 10%	3D
Hydrogen Peroxide 35%	3D
MISCELLANEOUS	
Brake Fluid	3
Skydrol	3
Formaldehyde 37%	3
Ethylene Glycol	4
Propylene Glycol	3
Vegetable Oil	4
Gasoline	2
Water	4
Anti Freeze	4
Bleach	4

1 = Incidental (8 hrs)
2 = Splash & spill (72 hrs)
3 = Extended exposure (7 days)
4 = Long term exposure (30 days)
D= Discoloration
NR =Not rated

Packaging

DURALKOTE 240 standard colors are packaged in a 4 gal (15.2 L) case containing two 2 gal (7.6 L) kits. DURALKOTE 240 is also packaged in a Neutral Base & Color Pack kit that contains two 2 gal (7.6 L) kits of Neutral Base and two Universal Color Packs of the chosen color. Alternatively, the DURALKOTE 240 Neutral Base 4 gal (15.2 L) case and Universal Color Packs are available separately.

Shelf Life

2 years in original, unopened containers

Specifications/Compliances

DURALKOTE 240 is IAPMO/ANSI Standard 61 certified for use with potable water

Canadian Food Inspection Agency compliant

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Coverage

Primer (optional)	ft²/gal (m²/L)
Duraprime WB	125 to 250 (3.1 to 6.1)
or	
Duraltex Clear	150 to 300 (3.7 to 7.4)

Neat Coating	ft²/gal (m²/L)
Duralkote 240, 1st coat	100 to 150 (2.5 to 3.7)
Duralkote 240, 2nd coat	100 to 150 (2.5 to 3.7)
Eucothane, seal coat	300 to 500 (7.4 to 12.3)

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 2-4 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 DURALKOTE 240, 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 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.

Mixing: Mix DURALKOTE 240 using a low-speed drill and a mixing paddle. Pre-mix Part A and Part B separately for approximately 3 minutes each. If DURALKOTE 240 NEUTRAL BASE and a EUCLID UNIVERSAL COLOR PACK are being used, it takes 1 EUCLID UNIVERSAL COLOR PACK per 2 gal (7.6 L) unit. Add the EUCLID UNIVERSAL COLOR PACK into the Part B and mix slowly until the color is uniform. Combine Part A and Part B in a 1 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: 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.

Where an anti-skid surface is desired for DURALKOTE 240, broadcast approximately 0.25 to 0.50 lbs./ft.² (1.2 to 2.4 kg/m²) of clean, dry aggregate into the first coat. When the first coat has cured, sweep off excess aggregate. Proceed with the second coat of DURALKOTE 240 and the optional seal coat of EUCOTHANE listed in the "Coverage" section above.

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 DURALKOTE 240 will require mechanical abrasion for removal.

Precautions/Limitations

- Store DURALKOTE 240 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 DURALKOTE 240 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 DURALKOTE 240
- When a vapor barrier is utilized in on-grade applications of DURALKOTE 240, it must be installed directly under the slab
- Although DURALKOTE 240 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.
- DURALKOTE 240 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
- DURALKOTE 240 NEUTRAL BASE requires 1 EUCLID UNIVERSAL COLOR PACK per 2 gal (7.6 L) unit. Mix COLOR PACK into the Part B component.
- In all cases, consult the product Safety Data Sheet before use