



# HIGH PERFORMANCE EPOXY

## 2-PART EPOXY COATING FOR CONCRETE

HIGH PERFORMANCE FLOOR COATINGS

HIGH PERFORMANCE EPOXY

MASTER FORMAT #: 00 00 00

### DESCRIPTION

**HIGH PERFORMANCE EPOXY** is a 2-component, 100% solids, high-performance coating that provides a high gloss, high-build protection for concrete, rigid surfaces and masonry.

### PRIMARY APPLICATIONS

- Warehouse and garage floors
- Food processing, kitchens, food storage areas
- Pharmaceutical plants
- Manufacturing plants, workshops
- Education facilities and hospitals
- Light commercial/industrial facilities

### FEATURES/BENEFITS

- Versatile: coatings, broadcast floors, chips, METAL FX
- High film build and gloss
- Available in Clear and 35 standard colors
- Chemical resistant
- Stain and scratch resistant
- Low odor

### TECHNICAL INFORMATION

The following results were developed under laboratory conditions @ 75 °F (24 °C)

<b>Mix Ratio</b> (by Volume).....2:1	<b>VOC Content</b> .....<50 g/L
<b>Gel Time</b> , 200 g, minutes.....35 to 45	<b>Tack Free</b> , hrs.....4 to 5
<b>Pot Life</b> , 3 gal (11.4 L), minutes.....15 to 25	<b>Abrasion Resistance</b> , ASTM D 4060...32 mg loss
<b>Compressive Strength</b> , ASTM D 695	<b>Tensile Strength</b> , ASTM D 638
@ 7 days psi (MPa).....6,700 (46.2)	psi (MPa).....5,500 (37.9)
<b>Hardness, Shore D</b> , ASTM D 2240.....85 to 90	<b>Tensile Elongation</b> , ASTM D 638 .....15 to 30%
<b>Bond Strength</b> , ASTM D 4541...Greater than concrete	<b>Abrasion Resistance</b> , ASTM D 4060...32 mg loss
<b>Water Absorption</b> , ASTM D 570 @ 24 hours....<0.5%	<b>Flammability</b> , ASTM D 635 Self Extinguishing.....
<b>Monolithic Surfacing</b> , ASTM C 722.....Passes	.....0.75 Max

### PACKAGING

HIGH PERFORMANCE EPOXY is packaged in 1 gal (3.8 L) and 3 gal (11.4 L) kits.

### SHELF LIFE

2 Years in original, unopened containers.

### COVERAGE

Coverage/U.S.Gallon (3.78 L)
10 mils 160 ft <sup>2</sup> ( 250 μm 5.0 m <sup>2</sup> )
20 mils 80 ft <sup>2</sup> ( 400 μm 7.5 m <sup>2</sup> )
40 mils 40 ft <sup>2</sup> (1000 μm 3.7 m <sup>2</sup> )

If used for **METAL FX**, **GRANITE COAT** or **QUARTZ EP** please refer to the system technical data sheet.

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

## 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. The Concrete Surface Profile (CSP) should be equal to CSP 2-3 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 HIGH PERFORMANCE EPOXY 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**.

If **HIGH PERFORMANCE EPOXY** is used for **METAL FX, GRANITE COAT, QUARTZ EP**, or as a sand saturated epoxy bonding agent in the **LEVELTOP SYSTEM**, please consult the respective technical data sheet for proper installation instructions and coverages.

## CLEAN-UP

Clean tools and application equipment with SOLV-KLEEN, methyl ethyl ketone or acetone immediately after use. Clean spills or drips with solvent while still wet. Dried HIGH PERFORMANCE EPOXY will require mechanical abrasion for removal.

## PRECAUTIONS/LIMITATIONS

- Store at temperatures between 50 to 90 °F (10 to 32 °C).
- Do not aerate during mixing.
- Do not mix or apply unless surface, air, and material temperatures are 50 °F (10 °C) and rising.
- Do not apply if surface temperature is within 5 °F (-15 °C) of the dew point in the work area.
- Cure new concrete 28 days before application.
- Do not apply to slabs on grade unless a heavy uninterrupted vapor barrier has been installed under the slab.
- Do not apply if the floor is subject to moisture vapor drive or hydrostatic pressure.
- HIGH PERFORMANCE EPOXY will yellow upon prolonged exposure to sunlight or high intensity artificial lights. For applications requiring color stability, urethane should be used as a topcoat.
- Although epoxy coatings are chemically resistant, the surface may stain after contact with some chemicals. A urethane topcoat is recommended for improved stain resistance.
- For professional use only.
- In all cases, consult the Safety Data Sheet before use.
- If used in METAL FX, GRANITE COAT or QUARTZ EP, please consult the respective technical data sheet for proper installation instructions and coverages.

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