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**INCRETE HIGH PERFORMANCE EPOXY Neat Application**

Increte High Performance Epoxy is a two-component epoxy coating designed to be used for a variety of flooring applications and methods.

***Floor Coating Neat (no aggregate fortification): 20 to 30 mils dry film thickness***

***Step 1 Primer:*** *INCRETE HIGH PERFORMANCE EPOXY applied as a primer per manufacturer’s literature.*

***Step 2 First Coat :*** *INCRETE HIGH PERFORMANCE EPOXY applied at full coverage. Two coats are typically used for industrial applications and areas expected to receive high wear.*

***Step 3 Second Coat:*** *INCRETE HIGH PERFORMANCE EPOXY applied at full coverage*

***Step 4 UV Resistant Top Coat (Optional):*** *In areas subject to sunlight or high intensity artificial light color stability can be improved by applying a seal coat of Euclid Chemical’ss* ***“Eucothane”*** *high quality urethane coating**in a clear coat or color to match the Increte High Performance Epoxy base coat.*

***Slip resistance.*** *For improved slip resistance, fine aggregate (sand or Euclid Chroma-Quartz colored aggregate) is broadcast into the wet final coat, then bankrolled to lock it into the coating.*

***Note: The paragraphs below are meant to be incorporated into Parts 2 and 3 of a standard CSI 3 Part Format specification, the General Structural Notes, or directly onto the plans. They must be carefully reviewed by a qualified design professional and edited to meet the requirements of the project and governing building codes. Coordinate with other specification sections and drawings. In no case shall these Guide Specifications be considered to be Contract Documents or serve as installation instructions for the product being discussed. In any cases of discrepancy the manufacturer's most recently published data sheet shall take precedent.***

**PART 1 GENERAL**

1.01 QUALITY ASSURANCE

A. Obtain primary resinous flooring materials, including primers, base coats, seal coats and top coats etc… from one single resinous flooring manufacturer. Obtain secondary materials including aggregates, sheet flashings, joint sealants, and substrate repair materials of type and from source recommended by resinous flooring manufacturer.

1. Resinous flooring manufacturer shall have ISO 9001 Quality Certification.

B. Resinous Flooring Mock-Up:

1. Prior to commencing resinous flooring application, prepare a minimum **<<insert size>>** full scale, reference mock-up of each type, **[and][color][and][ texture]** of resinous flooring surface for approval by Owner.Said reference mock-up shall be constructed in location designated by owner/architect, using the same equipment, tools, personnel and methods for installing all materials as will be used for the remaining work to be performed.

2. Once accepted by owner’s representative, mock-up is to remain, and is to be protected from damage. It shall become the standard for acceptance of color and texture for resinous flooring applications.

3. When Architect determines that mockup does not meet requirements, demolish and remove it from the site and cast another until the mockup is accepted.

1.03 PROJECT CONDITIONS

A. Environmental Limitations: Apply resinous flooring within the range of ambient and substrate temperatures recommended in writing by manufacturer. Do not apply resinous flooring to damp or wet substrates. Apply when temperatures are between 50 deg F and 90 deg F (10 deg C and 32 deg C). Do not apply when temperatures are less than 5 deg F (-15 deg C) above dew point.

1. Coordinate flooring work with other trades to ensure adequate illumination, ventilation, and dust free environment during application and curing of flooring.

B. Conditions for Concrete

*{Note to Specifier: New concrete slabs on grade to receive resinous floor coating should be poured over heavy duty, uninterrupted, properly installed, vapor barrier.}*

*{Note to Specifier: : Moisture retaining cover cure is to be removed after seven days to allow the concrete to air dry prior to flooring installation.}*

1. New concrete shall be in place a minimum 28 days before proceeding.

2. Any cementitious repair mortars must have a full 7-day cure prior to coating unless otherwise approved in writing by architect.

3. Do not apply resinous floor coatings if there is excessive moisture in the concrete or if the moisture vapor emission rate (MVER) is high.

a. Prior to application of resinous coating, 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 percent or greater, or the MVER is 3 lbs/1000 ft2 /24 hrs

or greater notify Architect in writing and contact manufacturer for recommendations.

4. Examination:

a. Prior to commencement of resinous floor system application examine substrates, with Applicator present, for compliance with requirements and for other conditions affecting performance of resinous flooring.

b. For the record, prepare written report, endorsed by Applicator, listing conditions detrimental to performance.

c. Verify compatibility with and suitability of substrates.

d. Contractor must report, in writing, surfaces left in improper condition by other trades. Application of coating indicates acceptance of surfaces and conditions.

**PART 2.0 PRODUCTS**

2.01 RESINOUS FLOOR SYSTEM

A. **Prime Coat**: (2) component, clear, 100 percent solids epoxy amine resin with the following characteristics:

1. **Basis of Design Product: Euclid Chemical Company (The); Increte High Performance Epoxy,** [**www.euclidchemical.com**](http://www.euclidchemical.com)

B. Floor System Base Coat: (2) component, 100 percent solids, high build epoxy amine resin with the following characteristics:

**1. Basis of Design Product: Euclid Chemical Company (The); Increte High Performance Epoxy,** [**www.euclidchemical.com**](http://www.euclidchemical.com)

a. Compressive Strength: Minimum 6,700 psi in accordance with ASTM D695

b. Shore D Hardness of 85 to 90 in accordance with ASTM D 2240

c. Tensile Strength 5,500 in accordance with ASTM D 638

d. VOC Content: 46 g/l

e. Abrasion Resistance in accordance with ASTM D4060: 32 mg loss

f. Tensile Elongation 15 to 30 percent in accordance with ASTM D638

g. Color: **[To be chosen from manufactures list of standard colors][Clear]**

*{Note to Specifier: The paragraph below discusses the resinous floor system top coat. In areas subject to sunlight or high intensity artificial light color stability can be improved by applying a top coat of one of Euclid Chemical’s high quality aliphatic urethane coatings in a color to match the base coat.*

[**B. Resinous Floor System Top Coat: Eucothane, polyester/aliphatic polyurethane coating by Euclid Chemical.** ]

*{Note to Specifier: Often minor surface repairs are required prior to application of the resinous floor system. Such repairs can typically be handled by having the contractor make a mortar mix of the 100% solids floor resin and aggregate. Larger repairs can be performed utilizing DuralFlex Fast Patch 100% solids fast setting epoxy repair mortar or VersaSpeed fast setting cementitious repair mortar designed to take Euclid epoxy coatings in 4 hours.}*

**PART 3.0 EXECUTION**

3.01 SURFACE PREPARATION

A. Clean and mechanically prepare substrates according to manufacturer’s written recommendations to produce clean, sound, dust-free, dry, absorptive substrate free of grease, oils, curing compounds, surface laitance, soil and other contaminants which may interfere with bond of resinous flooring.

1. Concrete surface profile should be equal to CSP 2 to 5 in accordance with ICRI Guideline 310.2. Steel surfaces should be blasted in accordance with SSPC-SP10 to a “NEAR WHITE” finish using clean dry blasting media.

*{Note to specifier: The strength of the prepared concrete surface can be tested. Insert the following sub paragraphs if quantitative results are required.}*

**2. [Following surface preparation the cleaned concrete floor shall be tested for compliance with the following:]**

**a. [Minimum surface tensile strength of 250 psi when tested with a “Elcometer” or similar pull tester per ASTM C 1583.]**

2. Begin resinous flooring application only after minimum concrete curing and drying period recommended by resinous flooring manufacturer has passed, after unsatisfactory conditions have been corrected, and after surfaces are dry

B. Prepare vertical and horizontal surfaces at terminations and penetrations through resinous flooring and at expansion joints, drains, and sleeves according to manufacturer’s written recommendations

C. Mask adjoining surfaces not receiving resinous flooring, drains, and other substrate penetrations to prevent spillage, leaking, and migration of coatings.

*{Note to Specifier: Retain the following paragraph if a seamless flooring system is desired. It should be noted that on newly poured concrete slabs, and on concrete surfaces that will be undergoing dramatic temperature swings, there may be significant movement taking place at the control joints. Such movement may not be able to be accommodated by the epoxy flooring system. This can result in cracking through the resinous flooring. Another option is to have control joints and dynamically moving cracks brought up through the coating and sealed with an elastomeric joint sealant such as Eucolastic in a matching color. }*

**[D. Static Cracks and Non-Moving Joints shall be routed to a minimum with of ¼” and a minimum depth of ½” and filled with a semi-rigid epoxy joint filler approved by resinous flooring manufacture or a detail coat of specified resinous floor coating.]**

3.02 RESINOUS FLOOR SYSTEM APPLICATION:

A. Resinous Floor System Neat Application, apply per manufacturer’s written technical data sheet.

# 1. Mechanical Mixing- Coating and primers shall be thoroughly mixed utilizing a mechanical drill with a manufacturer approved mixing blade. Premix individual components separately per manufacturer’s recommendations then combine materials and mix per manufacturers recommendations. Bottom and sides of container may be scraped during mixing but shall not be scraped once mixing has ceased. Do not aerate material.

2. Primer Coat Application: Roller apply properly mixed Prime Coat material at manufacturer’s recommended coverage rate of 200 to 225 square feet per gallon.

3. Resinous Floor System Base Coat Application: Once prime coat is tack free but no later than 24 hours after application of prime coat, apply uniform application of properly mixed Resinous Floor System Base Coat to floor at a rate of 100 square feet per gallon per manufacturer’s written recommendations. Allow 5 to 8 hours but no more than 24 hours before applying additional coats.

4. Appy second application of base coat no later than 24 hours after the first application. Apply at the rate of 150 square feet per gallon.

*{Note to Specifier: The paragraph below discusses the resinous floor system top coat. In areas subject to sunlight or high intensity artificial light color stability can be improved by applying a seal coat of one of Euclid Chemical’s high quality urethane coatings in a color to match the base coat.*

**[5. UV Resistant Top Coat Application: Apply uniform application of urethane floor system top coat in accordance with manufacturer’s written recommendations at manufacturer’s recommended coverage rate. Apply to tack free surface no more than 24 hours after application of previous coat.**

*{Note to Specifier: Retain paragraph below if light broadcast of aggregate will be required to improve slip resistance.}*

[6. **While final coat is still wet, uniformly broadcast slip resistance granules of fine sand or quartz and backroll to lock the granules into the coating.]**

*{Note to Specifier: To provide a seamless integral floor at the floor to wall transition, a cove base of 2 to 6 inches (5 to 15 cm) in height may be required. The primer coat resin mixed with aggregate can be used as a cove base. Retain paragraph below to provide cove base.}*

**[B. Cove Base shall consist of mixture of primer coat resin and finely graded, clean dry, trowelable aggregates troweled to properly prepared vertical surface to a height of <<insert number>> in order to create coved, seamless, integral transition at joint between wall and floor.]**

*{Note to Specifier: Depending on the specific project, correct implementation of other application details, such as floor terminations, floor/drain detail, etc. may be required. For further information contact Euclid Chemical Technical Support at (800) 321-7628.}*

3.03 CURING AND PROTECTING

A. Prevent contamination and damage during application and curing stages.

B. Protect resinous flooring from damage and wear during remainder of construction period.

END SECTION