Eco-CRE™

Chemical Resistant Epoxy

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Division 9

Section - Chemical Resistant Coatings

PART 1 - GENERAL

1.01 Summary

A. A two-component, 100% solids chemical resistant epoxy for use on interior concrete floors. Complies with L.A. Rule 66 and VOC/VOS Rules and Regulations.

1.02 Performance Requirements

A. See manufacturer's technical data bulletin for specific material, cured coatings and a complete list of chemical resistant properties.

1. Chemical Resistance: Excellent chemical resistance to 30% Hydrochloric Acid (Muriatic), 10% Nitric Acid, Jet Fuel (JP-4), Skydrol® 500B and Skydrol® LD4 with no adverse effects, based on 7 day spot testing on concrete.

1.03 Submittals

A. Product Data: Submit manufacturer's product data, including physical properties, chemical resistance, surface preparation and application instructions.

B. Submit list of five projects similar in nature, which have been installed by applicator during the last five years, identified with project name, location, name of owner's representative, their phone number and date.

C. Submit manufacturer's standard warranty and applicator's warranty.

1.04 Quality Assurance

A. Applicator Qualifications:

1. A minimum of three years' experience in the application of coatings or resurfacers to concrete floors.
2. A minimum of ten jobs or 1,000,000 square feet of successful applications.

B. Pre-Application Meeting: Convene a pre-application meeting 2 weeks before the start of application of floor coating system. Require attendance of parties directly affecting work of this section, including the Contractor, Architect, Applicator and Manufacturer's Representative. Review the surface preparation, application, cleaning, protection and coordination with other work.

1.05 Delivery, Storage and Handling

A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

B. Store materials in accordance with manufacturer's instructions.

1. Store materials in dry, enclosed area with adequate protection from moisture.
2. Keep containers sealed until ready for use.
3. Storage Temperature: 65°F (18°C) and 90°F (32°C).

1.06 Warranty

A. Written manufacturer's warranty covering materials only. Applicator to provide application warranty.

PART 2 - PRODUCTS

2.01 Materials

A. Coating: Tennant Eco-CRE™ - Chemical Resistant Epoxy. A two-component epoxy.
   1. Percent Solids, ASTM D2369
      1. Part A - 100%
      2. Part B - 100%
   2. Volatile Organic Compound (VOC), ASTM D3960
      1. 0 lb/gal or 0 g/L
   3. Tensile Strength, ASTM D2370
      1. 8,000 psi or 55,200 kPa
   4. Percent Elongation, ASTM D2370
      1. 5%

B. Traction Grit
   1. Tennant 291 Grit (60 mesh) - white aluminum oxide

C. Cleaners and Related Products:
   1. Industrial Grease Remover: Tennant Detergent
      1. Tennant detergents are available in a range of formulations which remove a variety of soilage.
   2. Cleaner/Remover: Tennant 9960.
      1. Some curing membranes may be removed with Tennant 9960.
   3. Cleaner/Etchant: Tennant 409 Pre-Kote Cleaner or equivalent Tennant etchant for use by Tennant Authorized Contractor.
      1. Blend of buffered acids and emulsifiers.

PART 3 - EXECUTION

3.01 Examination

A. Examine concrete surface to receive floor coating system. Notify the Architect if surface is not acceptable. Do not begin surface preparation or application until unacceptable conditions have been corrected.

B. Allow concrete substrate to cure a minimum of 30 days.

C. **CHECK FOR MOISTURE:** Concrete must be dry before application of this floor coating material. Concrete moisture testing must occur. Calcium chloride testing or in-situ relative humidity testing is recommended. Readings must be below 3 pounds per 1,000 square feet over a 24-hour period on the calcium chloride test or below 70% relative internal concrete humidity. Test methods can be purchased at www.astm.org, see ASTM F1869 or F2170, respectively or follow instructions from the suppliers of these tests.
NOTE: Although testing is critical, it is not a guarantee against future problems. This is especially true if there is no vapor barrier or the vapor barrier is not functioning properly and/or you suspect you may have concrete contamination from oils, chemical spills or excessive salts.

3.02 Preparation

A. Prepare surface in accordance with manufacturer's instructions.
   1. Cleaning: Scrub with Tennant detergent and rinse with clean water to remove surface dirt, grease and oil.

2. Removing: Remove coatings and curing membranes with one of the following methods:
    1. Mechanical - Sand floors.
    2. Chemical - Some curing membranes may be removed with Tennant 9960.
3. Conditioning:
    1. Apply Tennant 409 Pre-Kote Cleaner and ensure solution reacts with the concrete in a general and equal fashion over all areas.
    2. Do not use unbuffered muriatic acid to condition the concrete.

3.03 Application

A. Apply floor coating system in accordance with manufacturer's instructions.
    1. Assemble squeegees and rollers, clean rollers to remove residual lint.
    2. Primer: Eco-CRE™ -- Chemical Resistant Epoxy.
        1. Mix components together.
        2. Mix only enough material which can be applied within 25 minutes.
        3. Apply Eco-CRE™ at the rate of 321-535 ft^2/gal.
        4. Allow coating to cure 6-9 hours at 75 degrees F (24 degrees C) and 50% relative humidity.
    3. Coating: Eco-CRE™ -- Chemical Resistant Epoxy.
        1. Mix components together.
        2. Mix only enough material which can be applied within 25 minutes.
        3. Apply Eco-CRE™ at the rate of 200-267 ft^2/gal while primer coat is still tacky.
        4. Allow coating to cure 24 hours at 75 degrees F (24 degrees C) and 50% relative humidity.

3.04 Protection

A. Close job site to traffic for a period of 24 hours after coating application

END OF SECTION