A R C H I T E C T U R A L G U I D E S P E C I F I C A T I O N

Eco-DQS™ Quartz
Decorative Quartz System

Eco-Flex™
Flexible Epoxy Primer / Water Proofing System

Eco-URE™
Ultraviolet Resistant Epoxy

Eco-HTS™ 100
Satin Finish Urethane

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Division 9
Section - Resinous Flooring

PART 1 - GENERAL

1.01 Summary
A. Eco-Flex is a filled two-component, 100% solids epoxy that consists of an epoxy resin and colored quartz aggregate. It is seal coated with Eco-URE which is a two-component, 100% solids epoxy with improved light stability for an attractive, slip-resistant surface on interior concrete floors. Eco-HTS™ 100 is a high performance coating system that consists of a proprietary three-component moisture-cure urethane with superior abrasion resistance. Eco-PJS™ is a 100% solids, two-component, semi-rigid polyurea joint filler for concrete floors. Low VOC. (Complies with SCAQMD VOC regulations. LEED credits available.)

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

1.03 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. Decorative Quartz:
   1. Percent Solids, 100 ASTM D2369
   2. Completely light stable over the normal life of the coating.

B. Primer: Tennant Eco-Flex™ - Flexible Epoxy. A two-component epoxy.
   1. Volatile Organic Compound (VOC), ASTM D3960
      1. 0 lb/gal or 0 g/L
   2. Tensile Strength, ASTM D2370
      1. 8,000 psi or 55,200 kPa
   3. Percent Elongation, ASTM D2370
      1. 5%

C. Seed Coats: Tennant Eco-Flex™ - Flexible Epoxy Primer. A two-component epoxy.
   1. Volatile Organic Compound (VOC), ASTM D3960
      1. .04 lb/gal or 4 g/L
   2. Tensile Strength, ASTM D2370
      1. 18,530 psi or 127,857 kPa (7 mils, 3-day cure)
   3. Percent Elongation, ASTM D2370
      1. 125% (7 mils, 3-day cure)

D. Seal coat: Tennant Eco-URE™ - Ultraviolet Resistant Epoxy. A two-component epoxy.
   1. Volatile Organic Compound (VOC), ASTM D3960
      1. 0.05 lb/gal or 6 g/L
   2. Tensile Strength, ASTM D2370
      1. 8,000 psi or 55,200 kPa
   3. Percent Elongation, ASTM D2370
      1. 5%

E. Coating: Tennant Eco-HTS 100 - 100 g/L, VOC Compliant, Satin Urethane Topcoat. A three-component moisture-cure urethane.
   1. Volatile Organic Compound (VOC), ASTM D3960
      1. 0.71 lb/gal or 86 g/L
   2. Abrasion Resistance, ASTM D4060
      1. 18 mg loss @ 1000 revolutions
   3. Tensile Strength, ASTM D2370
      1. 6,250 psi or 43.092 MPa
   4. Percent Elongation, ASTM D2370
      1. 6% (resin only)
   5. Percent Solids (by wt.)
      1. Part A - 99.35%
      2. Part B - 59.23%
      3. Part C - 100%
      4. Mixed - 94%

F. Joint Filler: Tennant Eco-PJS™ - Polyurea Joint Filler. A two-component polyurea.
   1. Percent Solids, ASTM D2369
      1. Part A - 100%
      2. Part B - 100%
   2. Volatile Organic Compound, ASTM D3960

1. 0 lb/gal or 0 g/L

3. Tensile Strength, ASTM D638
    1. 1,183 psi or 8,157 kPa

G. Colors:

1. Tennant Colors -Quartz: Black Cherry, Cinnamon Twist, Cranberry Red, Northwoods Green, Sandstone, Stone Gray, Twilight Blue and Wild Plum. Custom blends and solid colors are also available.

H. 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.

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 THE TEMPERATURE AND HUMIDITY:** Floor temperature and materials should be between 65°F (18°C) and 90°F (32°C). Humidity must be less than 80%. **DO NOT** coat unless floor temperature is more than five degrees over the dew point.

D. **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 (1.5 kg per 150m^2) over a 24-hour period on the calcium chloride test or below 75% 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. Preparation; Remove coatings and curing membranes and provide the required bonding profile with one of the following methods:
    1. Shotblasting
    2. Diamond Grinding

3.03 Application

A. Apply floor coating system in accordance with manufacturer's instructions.

1. Equipment: squeegees, rollers, mechanical blower and funnel for quartz application, etc.
2. Primer: Eco-Flex™ -- Flexible Epoxy.
    1. Mix components together.
    2. Mix only enough material which can be applied within 25 minutes.
    3. Apply Eco-Flex™ at the rate of 320 ft^2/gal or 5 mils
    4. Tight squeegee coat—no backroll.
    5. Allow coating to cure 3 to 8 hours at 75 degrees F (24 degrees C) and 50% relative humidity.
3. Coating: Eco-DFS™ -- Decorative Floor Solutions.
    1. Mix Eco-Flex™ components together in accordance with manufacturer's instructions.
    2. Mix only enough material which can be applied within 25 minutes.
    3. Apply Eco-Flex™ at the rate of 107 ft^2/gal.
    4. Immediately broadcast decorative quartz into the resin at the rate of .4 to .5 pounds per sq. ft.

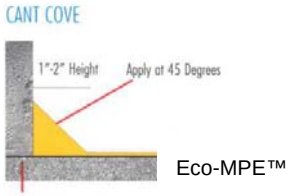
5. Allow coating to cure 8-10 hours at 75°F (24°C) and 50% relative humidity.
6. Sweep and then vacuum the entire area to remove all excess quartz.
7. Apply second coat Eco-Flex™ at 107 ft^2/gal.
8. Repeat steps 4, 5 and 6

4. Topcoat: Eco-URE™ -- Ultraviolet Resistant Epoxy.
    1. Mix components together.
    2. Mix only enough material which can be applied within 25 minutes.
    3. Apply Eco-URE™ at the rate of 137 ft^2/gal for full flake and 15 mils for quartz while primer coat is still tacky.
    4. Allow coating to cure 24 hours at 75°F (24°C) and 50% relative humidity.
    5. **IF LESS TEXTURE IS DESIRED,** apply an additional 6-10 mils (160-267 sq. ft./gallon) of Eco-URE within 24 hours of the previous coat.
5. Coating: Eco-HTS 100 - 100 g/L, VOC-Compliant, Satin Urethane Topcoat.
    1. **NOTE:** *Epoxy must be thoroughly sanded and cleaned prior to application of Eco-HTS 100 unless Eco-HTS 100 can be applied within the recoat window. The window is 24 hours for floor temperatures 65°F-90°F (18°C-32°C).*
    2. Open and mix only enough material which can be applied in a 2 hour period.
    3. Apply Eco-HTS 100 at the rate of 500 ft^2/gal. (12.3 m^2/L).
6. Joint Filler: Eco-PJS™ -- Polyurea Joint Filler.
    1. Mix components together.
    2. Prefill bottom of joint with silica sand to control joint depth and hold up filler during cure.
    3. Premix each Part A and B separately and prior to pouring into dispensing units.
    4. Apply Eco-PJS with a pressurized plural meter dispenser. Set dispenser for a 1:1 mix ratio by volume.
    5. After 30 minutes and up to 4 hours after application, shave off excess. Refill underfilled joints within 2 hours. If more than 2 hours, abrade surface and remove dust before recoating.
    6. Allow joint filler to cure 30 minutes/foot traffic, 2 hours/vehicle traffic and 24 hours/heavy traffic at 75°F (24°C).
    7. Allow to cure 30 minutes to 2 hours before topcoating with a Tennant coating. ***NOTE:*** *See product bulletin for specific times/coatings.*

3.04 Protection

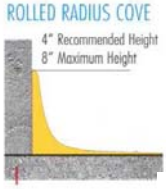
A. Close job site to traffic for a period of up to 48 hours after coating application depending on temperature and humidity

END OF SECTION



Eco-MPE™

Coving, if required, shall be installed in accordance with manufacturer's instructions.



Eco-MPE™