

# Eco-DFS™ Flake / Eco-DQS™ Quartz

## Decorative Flake System / Decorative Quartz System



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## Division 9

### Section - Resinous Flooring

## PART 1 - GENERAL

### 1.01 Summary

- A. A filled two-component, 100% solids epoxy that consists of epoxy resin and colored quartz aggregate or flake chips seal coated with a thick coat, 100% aliphatic urethane for an attractive, slip-resistant surface on interior concrete floors. Complies with State of California and Federal VOC 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.

### 1.03 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 and Flake
  - 1. Percent Solids, 100 ASTM D2369
  - 2. Completely light stable over the normal life of the coating.
- B. Resin for seed coats: Tennant Eco-MPE™ - Multi-Purpose 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. Seal Coat: Tennant Eco-TCU™ - Thick Coat Urethane. A two-component urethane.
1. Volatile Organic Compound (VOC), ASTM D3960
    1. 0.9 lb/gal or 100 g/L
  2. Tensile Strength, ASTM D2370
    1. 7,000 psi or 48,300 kPa
  3. Percent Elongation, ASTM D2370
    1. 7%
- D. 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.
  2. Tennant Colors - Flake: Checkerboard, Tweed, Evergreen, Storm and Tornado. . Custom blends and solid colors are also available.
- E. 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 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](http://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. Coating: Eco-DFS™ -- Decorative Floor Solutions.

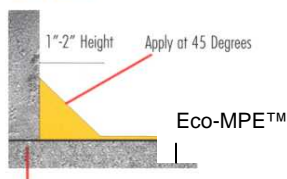
1. Mix Eco-MPE™ components together in accordance with manufacturer's instructions.
  2. Mix only enough material which can be applied within 25 minutes.
  3. Apply Eco-MPE™ at the rate of 160-200 ft<sup>2</sup>/gal.
  4. Immediately broadcast decorative quartz into the resin at the rate of .4 to .5 pounds per sq. ft. or .2 pounds per sq. ft. for flake.
  5. Allow coating to cure 8-10 hours at 75 degrees F (24 degrees C) and 50% relative humidity.
  6. Sweep and then vacuum the entire area to remove all excess quartz or flake.
  7. Apply second coat Eco-MPE™ at 107 ft<sup>2</sup>/gal.
  8. Repeat steps 4, 5 and 6
3. Topcoat: Eco-TCU™ -- Thick Coat Urethane
1. Mix components together in accordance with manufacturer's instructions.
  2. Mix only enough material, which can be applied within 25 minutes.
  3. Apply Eco-TCU™ at the rate of 107 ft<sup>2</sup>/gal.
  4. Allow coating to dry 24 hours at 75 degrees F (24 degrees C) and 50% relative humidity.
  5. If less texture is desired, an additional coat of Eco-TCU™ can be applied at a maximum rate of 200 ft<sup>2</sup>/gal. within 24 hours of applying the previous coat.

### 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

CANT COVE



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

ROLLED RADIUS COVE

