



Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format. The section must be carefully reviewed and edited by the Architect or Engineer to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the drawings. Delete all "Specifier Notes" when editing this section.

SECTION 03360

CONCRETE COATING

Specifier Notes: This section covers Euclid "Eutopoxy Tufcoat" and "Eucopoxy Tufcoat VOX" epoxy coatings and "Eucothane" and "Eucothane VOX" urethane coatings. Consult Euclid for assistance in editing this section for the specific application. Edit the section title to "Concrete Epoxy Coating" or "Concrete Urethane Coating" if required.

PART 1 GENERAL

1.1 SECTION INCLUDES

Specifier Notes: Edit the following list as required for the project.

- A. Epoxy coating for concrete floors.
- B. Urethane coating for concrete floors.

1.2 RELATED SECTIONS

Specifier Notes: Edit the following list of related sections as required for the project. List other sections with work directly related to this section.

- A. Section 03300 - Cast-in-Place Concrete.

1.3 SUBMITTALS

- A. Comply with Section 01330 - Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including surface preparation and application instructions.
- C. Manufacturer's Certification: Submit manufacturer's ISO 9001/9002 certification.

1.4 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: ISO 9001/9002 registered or provide proof of documented quality

assurance system. Quality assurance system shall be registered by independent registrar accredited by ANSI Registrar Accreditation Board (ANSI-RAB) or by another internationally recognized body.

Specifier Notes: Describe requirements for a meeting to coordinate the application of the coating and to sequence related work.

- B. Pre-application Meeting: Convene a pre-application meeting [2 weeks] [_____] before start of application of coating. Require attendance of parties directly affecting work of this section, including Contractor, Architect, applicator, and manufacturer's representative. Review surface preparation, mixing, application, protection, and coordination with other work.

1.5 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. Storage:
 - 1. Store materials in clean, dry area indoors in accordance with manufacturer's instructions.
 - 2. Keep containers sealed until ready for use.

Specifier Notes: Include the following sentence when specifying Euco epoxy Tufcoat or Euco epoxy Tufcoat VOX.

- 3. Store between 45 degrees F (7 degrees C) and 110 degrees F (43 degrees C).

Specifier Notes: Include the following sentence when specifying Eucothane or Eucothane VOX.

- 4. Store between 45 degrees F (7 degrees C) and 90 degrees F (32 degrees C).

Specifier Notes: Include the following sentence when specifying Euco epoxy Tufcoat VOX.

- 5. Keep from freezing.
- C. Handling: Protect materials during handling and application to prevent damage or contamination.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply coating when concrete surface or air temperatures are below 50 degrees F (10 degrees C).

PART 2 PRODUCTS

2.1 MANUFACTURER

A. The Euclid Chemical Company, 19218 Redwood Road, Cleveland, Ohio 44110. Toll Free (800) 321-7628. Phone (216) 531-9222. Fax (216) 531-9596. Web Site www.euclidchemical.com.

2.2 CONCRETE COATING

Specifier Notes: Specify Euco epoxy Tufcoat, Euco epoxy Tufcoat VOX, Eucothane, or Eucothane VOX coating as required for the project. Delete coatings not required.

- A. Epoxy Coating: Euco epoxy Tufcoat.
1. Description: 2-component, epoxy coating for concrete floors.
 2. Compliance: Meets maximum VOC content of 450 g/L in accordance with EPA 40 CFR Part 59, Table 1, Subpart D for industrial maintenance coatings.
 3. VOC Content:
 - a. Clear: 425 g/L.
 - b. Colors: 449 g/L.
 4. Total Solids Content: 58 percent.
 5. Dry Film Thickness: 3 to 4 mils (76 to 102 microns) per coat.
 6. Abrasion Resistance, Taber Abrader, CS-17 Wheel, 1,000 g Load, 500 Cycles: 30.2 mg loss.
 7. Finish: Smooth, semi-gloss.

Specifier Notes: Specify color of epoxy coating.

8. Color: [Battleship Gray] [Black] [Brown] [Concrete Gray] [Green] [Tile Red] [Terra Cotta] [Yellow] [Tan] [Light Reflective] [White] [Clear].

- B. Epoxy Coating: Euco epoxy Tufcoat VOX.
1. Description: 2-component, water-based, epoxy-polyamide coating for concrete floors.
 2. Compliance: Meets maximum VOC content of 450 g/L in accordance with EPA 40 CFR Part 59, Table 1, Subpart D for industrial maintenance coatings.
 3. VOC Content:
 - a. Clear: 120 g/L.
 - b. Colors: 121 g/L.
 4. Total Solids Content: 56 percent.
 5. Dry Film Thickness: 3 to 4 mils (76 to 102 microns) per coat.
 6. Finish: Smooth, semi-gloss.

Specifier Notes: Specify color of epoxy coating. The clear is not water clear and may not be suitable for some surfaces. Euco epoxy Tufcoat DBS clear should be used if a water clear appearance is required.

7. Color: [Battleship Gray] [Black] [Brown] [Concrete Gray] [Green] [Blue] [Tile Red] [Terra Cotta] [Yellow] [Tan] [Light Reflective] [White] [Clear].

- C. Urethane Coating: Eucothane.
1. Description: 2-component, catalyzed aliphatic polyester-polyurethane coating for concrete floors.
 2. Compliance: Meets maximum VOC content of 450 g/L in accordance with EPA 40 CFR Part 59, Table 1, Subpart D for industrial maintenance coatings.
 3. VOC Content, Clear and Colors: 449 g/L.
 4. Total Solids Content: 58 percent.
 5. Dry Film Thickness: 3 to 4 mils (76 to 102 microns).

6. Impact Resistance, Gardner Impact, Direct and Reverse, 160 inches per pound (8,959 mm/kg): Passed.
7. Shore D Hardness: 72.
8. Abrasion Resistance, Taber Abrader, CS-17 Wheel, 1,000 g Load, 500 Cycles: 20 mg loss.
9. Finish: Smooth, high gloss.

Specifier Notes: Specify color of urethane coating.

10. Color: [Battleship Gray] [Black] [Brown] [Concrete Gray] [Green] [Blue] [Tile Red] [Terra Cotta] [Yellow] [Tan] [Light Reflective] [White] [Clear].

D. Urethane Coating: Eucothane VOX.

1. Description: 2-component, solvent-based polyurethane coating for concrete floors.
2. Compliance: Meets maximum VOC content of 450 g/L in accordance with EPA 40 CFR Part 59, Table 1, Subpart D for industrial maintenance coatings.
3. VOC Content
 - a. Clear: 370 g/L.
 - b. Colors: 361 g/L.
4. Total Solids Content:
 - a. Clear: 64 percent.
 - b. Colors: 67 percent.
5. Dry Film Thickness: 3 to 4 mils (76 to 102 microns).
6. Impact Resistance, Gardner Impact, Direct and Reverse, 160 inches per pound (8,959 mm/kg): Passed.
7. Shore D Hardness: 72.
8. Abrasion Resistance, Taber Abrader, CS-17 Wheel, 1,000 g Load, 500 Cycles: 20 mg loss.
9. Finish: Smooth, high gloss.

Specifier Notes: Specify color of urethane coating.

10. Color: [Battleship Gray] [Black] [Brown] [Concrete Gray] [Green] [Blue] [Tile Red] [Terra Cotta] [Yellow] [Tan] [Light Reflective] [White] [Clear].

Specifier Notes: Specify primer for Eucothane and Eucothane VOX.

E. Primer for Urethane Coating: [Eu copoxy Tufcoat] [Eu copoxy Tufcoat VOX].

1. Color: Same color as urethane coating.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to receive coating. Notify Architect if surfaces are not acceptable. Do not begin surface preparation or application until unacceptable conditions are corrected.

3.2 SURFACE PREPARATION

- A. Prepare concrete floor in accordance with manufacturer's instructions.
- B. Ensure concrete is a minimum of 28 days old.
- C. Ensure concrete surfaces are clean, dry, and sound.
- D. Remove dirt, dust, oil, grease, debris, paint, coatings, curing compounds, sealers, and unsound concrete.
- E. Prepare surfaces mechanically in accordance with manufacturer's instructions to give an open surface profile with cement paste removed from surface.

Specifier Notes: Include the following paragraph when specifying Euco epoxy Tufcoat or Euco epoxy Tufcoat VOX.

- F. Joints and Edges:
 - 1. Saw cut edges of floor area 1/4 inch (6 mm) deep to provide locked-in edge, if floor is subjected to wheel traffic.
 - 2. Bring expansion joints up through coating.
 - 3. Fill cracks over 1/16 inch (1.6 mm) wide.
 - 4. Use Euco #456 Mortar to fill wide cracks, joints, and keyed edges in accordance with manufacturer's instructions.

3.3 MIXING

- A. Mix coating components in accordance with manufacturer's instructions.

Specifier Notes: Include the following sentence when specifying Euco epoxy Tufcoat or Euco epoxy Tufcoat VOX.

- B. Ensure materials are between 60 degrees F (16 degrees C) and 90 degrees F (32 degrees C).

Specifier Notes: Include the following article when specifying Euco epoxy Tufcoat or Euco epoxy Tufcoat VOX.

3.4 APPLICATION OF EPOXY COATING

- A. Apply epoxy coating in accordance with manufacturer's instructions.
- B. Apply 2 coats of epoxy coating.
- C. Back roll epoxy coating after application to reduce surface imperfections and improve bond.

Specifier Notes: If required, additional coats of this epoxy coating or a top coat of another Euclid product may be applied just after the second coat has become tack-free. The choice of a top coat is selected based upon chemical and wear resistance required. Consult Euclid for additional information. Delete the following paragraph if a top coat is not required.

D. Top Coat:

1. Apply top coat of _____ after second epoxy coat becomes tack-free.
2. Apply top coat in accordance with manufacturer's instructions no later than 24 hours after second epoxy coat application.

Specifier Notes: Epoxy coating can be applied as a non-slip floor finish. A test section is highly recommended to determine degree of slip resistance required. Consult Euclid for additional information. Include the following sentence if a non-slip surface is required. Edit for the specific application.

- E. Embed silica sand in epoxy coating for non-slip surface.

Specifier Notes: Include the following article when specifying Eucothane or Eucothane VOX.

3.5 APPLICATION OF URETHANE COATING

- A. Apply urethane coating in accordance with manufacturer's instructions.
- B. Prime concrete surfaces with primer and allow to dry.
- C. Apply urethane coating after primer has dried.

Specifier Notes: Urethane coating can be applied as a non-slip floor finish. A test section is highly recommended to determine degree of slip resistance required. Consult Euclid for additional information. Include the following sentence if a non-slip surface is required. Edit for the specific application.

- D. Embed silica sand in urethane coating for non-slip surface.

3.6 PROTECTION

- A. Protect Applied Coating:
 1. From Foot Traffic: Minimum of 24 hours.
 2. From Wheel Traffic: Minimum of 48 hours.
 3. From Chemicals: Minimum of 48 hours.

END OF SECTION