



# ENDURO-KOTE

## PRODUCT GUIDE SPECIFICATION

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat*, *SectionFormat*, and *PageFormat*, as described in *The Project Resource Manual – CSI Manual of Practice*.

The section must be carefully reviewed and edited by the Architect 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 numbers are from *MasterFormat* 1995 Edition, with numbers from *MasterFormat* 2004 Edition in parentheses. Delete version not required.

### **SECTION 07180 (07 18 13)**

#### **PEDESTRIAN TRAFFIC COATINGS**

Specifier Notes: This section covers Enduro Products “Enduro-Kote” walking deck and roof covering. Consult Enduro Products for assistance in editing this section for the specific application.

#### **PART 1 GENERAL**

##### **1.1 SECTION INCLUDES**

- A. Pedestrian traffic coating applied to plywood substrate.

##### **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 06160 (06 16 00) – Sheathing.
- B. Section 07620 (07 62 00) – Sheet Metal Flashing and Trim.
- C. Section 07920 (07 92 00) – Joint Sealants

##### **1.3 REFERENCES**

Specifier Notes: List standards referenced in this section, complete with designations and titles. This article does not require compliance with standards, but is merely a listing of those used.

- A. ASTM C 67 – Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.
- B. ASTM C 109 – Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens).
- C. ASTM C 297 – Standard Test Method for Flatwise Tensile Strength of Sandwich Constructions.
- D. ASTM D 570 – Standard Test Method for Water Absorption of Plastics.
- E. ASTM D 756 – Practice for Determination of Weight and Shape Changes of Plastics Under Accelerated Service Conditions.
- F. ASTM D 1242 – Standard Test Methods for Resistance of Plastic Materials to Abrasion.

- G. ASTM D 1499 – Standard Practice for Filtered Open-Flame Carbon-Arc Exposures of Plastics.
- H. ASTM D 2299 – Recommended Practice for Determining Relative Stain Resistance of Plastics.
- I. ASTM E 108 – Standard Test Methods for Fire Tests of Roof Coverings.
- J. ASTM E 119 – Standard Test Methods for Fire Tests of Building Construction and Materials.
- K. ASTM G 152 – Standard Practice for Operating Open Flame Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials.
- L. City of Los Angeles Research Report RR 24842.
- M. ICC-ES Acceptance Criteria for Walking Decks AC39.
- N. ICC-ES #2245.
- O. UL 790 – Standard for Standard Test Methods for Fire Tests of Roof Coverings.

#### **1.4 PERFORMANCE REQUIREMENTS**

- A. Performance Requirements: Provide fire-retardant, waterproof, wearing surface for pedestrian traffic complying with ICC-ES Acceptance Criteria for Walking Decks AC39 and having following cured-state characteristics:
  - 1. Weatherometer Test, ASTM D 1499 and G 152, Model D or H, 2,000 Hours: No crazing, cracking, spalling, softening, or other surface deterioration.
  - 2. Accelerated Aging Test, ASTM D 756, Procedures D and E, 6 Cycles, and Procedures D, E, and F, 25 Cycles: Passed bond strength test.
  - 3. Fire Retardancy, ASTM E 108 and UL 790: Class A rating.
  - 4. One-Hour Fire Resistance, ASTM E 119: One-hour fire-resistive rating, with minimum nominal 2 by 8 joists spaced 16 inches on center in accordance with ICC-ES #2245.
  - 5. Bond Strength, ASTM C 297:
    - a. After Accelerated Aging Test, ASTM D 756, Procedures D and E, 6 Cycles: Average 83 psi minimum.
    - b. After Accelerated Aging Test, ASTM D 756, Procedures D, E, and F, 25 Cycles: Average 82 psi minimum.
    - c. After Freeze Thaw Test, ASTM C 67: Average 104 psi minimum.
  - 6. Abrasion Resistance Test, ASTM D 1242, Method A: Did not exceed maximum loss in thickness allowed.
  - 7. Percolation: No noticeable leakage on each of 5 test specimens.
  - 8. Water Absorption Test, ASTM D 570: 8.7 percent by weight.
  - 9. Chemical Resistance Test, ASTM D 2299:
    - a. Unaffected By: Industrial detergent 20 percent solution, ammonia 5 percent solution, salt 20 percent solution, anti-freeze, kerosene, turpentine, and paint thinner.
    - b. Superficially Affected By: Chlorine 10 percent solution and sulfuric acid 3 percent solution.
    - c. Moderately Affected By: Muriatic acid 10 percent solution.
  - 10. Freeze Thaw Test, ASTM C 67:
    - a. No breakage, weight loss, cracking, crazing, or delamination.
    - b. Passed bond strength test.
  - 11. Concentrated Load, Average Residual Indentation: 0.009 inch.
  - 12. Wind Uplift: Meets ICC-ES requirements for bond strength tests, after accelerated aging and freeze thaw tests.
  - 13. Weight, Includes Pedestrian Traffic Coating, Metal Lath, and Staples: 2.2 pounds per square foot.
  - 14. Compressive Strength Test, ASTM C 109: 5,324 psi.

#### **1.5 SUBMITTALS**

- A. Comply with Section 01330 (01 33 00) – Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including surface preparation and application instructions.
- C. Samples:
  - 1. Submit manufacturer's standard color chart for selection of color.

- 2. Submit manufacturer's samples of pedestrian traffic coating, minimum 4 inches by 9 inches.
- D. Quality Assurance: Submit ICC-ES #2245.
- E. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- F. Maintenance Instructions: Submit manufacturer's maintenance and cleaning instructions.
- G. Warranty: Submit manufacturer's standard warranty.

## 1.6 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Manufacturer regularly engaged, for preceding 10 years, in manufacture of pedestrian traffic coatings of similar physical characteristics to those specified.
- B. Applicator's Qualifications:
  - 1. Applicator regularly engaged, for preceding 5 years, in application of similar materials to those specified.
  - 2. Approved by manufacturer.
- C. Regulatory Requirements:
  - 1. ICC-ES #2245.
  - 2. City of Los Angeles Research Report RR 24842.

Specifier Notes: Edit pre-application meeting as required for the project.

- D. Pre-application Meeting:
  - 1. Convene pre-application meeting before start of application of pedestrian traffic coating.
  - 2. Require attendance of parties directly affecting work of this section, including Contractor, Architect, and applicator.
  - 3. Review examination, preparation, mixing, application, protection, and coordination with other work.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly indicating the following on each container:
  - 1. Product name.
  - 2. Manufacturer.
  - 3. Material batch or lot number.
  - 4. ICC Evaluation Service report number.
  - 5. Quality control agency logo.
- B. Storage: Store materials in clean, dry area indoors, off ground, in accordance with manufacturer's instructions.
- C. Handling: Protect materials during handling and application to prevent contamination or damage.

## 1.8 ENVIRONMENTAL REQUIREMENTS

- A. When applying pedestrian traffic coating at air temperatures below 50 degrees F or above 95 degrees F, contact manufacturer regarding additives to be added in mixing liquids.
- B. Do not apply pedestrian traffic coating for 24 hours before or during rainy weather.

## 1.9 WARRANTY

- A. Warranty Period:
  - 1. Against Water Penetration: 10 years from date of installation.
  - 2. Workmanship: 2 years from date of installation, including removal and repair or replacement of material which becomes defective within warranty period.

## **PART 2 PRODUCTS**

### **2.1 MANUFACTURER**

- A. Enduro Products, 930-A East Orangethorpe Avenue, Anaheim, California 92801.  
Phone: (714) 526-5898 • Fax: (714) 526-6511 • Website: www.endurokote.com • Email: info@endurokote.com.

### **2.2 PEDESTRIAN TRAFFIC COATINGS**

- A. Pedestrian Traffic Coating: Enduro-Kote walking deck and roof covering.
  - 1. Cementitious Powder: EKC Powder.
  - 2. Acrylic Emulsion: EKL Liquid.
  - 3. Acrylic Color Coat: EKS Color Coat.

### **2.3 ACCESSORIES**

- A. Metal Lath: Hot-dipped galvanized steel, expanded metal lath, minimum 2-1/2 pounds per square yard.
- B. Staples: Corrosion-resistant steel, minimum No.16 gage, 7/8-inch or 1-inch crown, 5/8 inch long.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Examine areas to receive pedestrian traffic coating.
  - 1. Verify deck will drain properly, without low spots or high fascia edges.
  - 2. Verify exterior-grade plywood substrate is as specified in Section 06160 (06 16 00).
  - 3. Verify plywood is clean, dry, and solid, without damage to surface or soft spots.
  - 4. Verify plywood fastening is as specified.
  - 5. Verify plywood joints are tongue and grooved or tightly blocked.
  - 6. Verify bonderized, galvanized sheet metal flashing at perimeter is as specified in Section 07620 (07 62 00), with joints and seams caulked as specified in Section 07920 (07 92 00).
  - 7. Verify plastic drains are not used.
- B. Notify Architect of conditions that would adversely affect application or subsequent use.
- C. Do not begin surface preparation or application until unacceptable conditions are corrected.

### **3.2 PREPARATION**

- A. Protection: Protect adjacent surfaces from contact with pedestrian traffic coating.
- B. Prepare surfaces to receive pedestrian traffic coating in accordance with manufacturer's instructions.
- C. Remove dirt, dust, debris, oil, grease, and other surface contaminants which could adversely affect application of pedestrian traffic coating.
- D. Sweep plywood surface and joints clean and free of dirt and dust before application of pedestrian traffic coating.

### **3.3 MIXING**

- A. Mix materials in accordance with manufacturer's instructions.

### **3.4 APPLICATION**

- A. Apply pedestrian traffic coating in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Metal Lath:
  - 1. Attach metal lath to plywood substrate with a minimum of 24 staples per square foot, uniformly spaced.
  - 2. Do not overlap metal lath.
  - 3. Splice butt joints with staples spaced a maximum of 1 inch apart.

4. Lap metal flashing to base of vertical risers and deck drains.
- C. Pedestrian Traffic Coating:
  1. First Coat:
    - a. Trowel mixture into metal lath ensuring voids in lath are filled.
    - b. Minimum Thickness: 1/8 inch.
  2. Second Coat:
    - a. Trowel over first coat.
    - b. Minimum Thickness: 1/16 inch.
  3. Finish Coat:

Specifier Notes: Specify texture, smooth, or decorative finish.

- a. Texture Coat: Spray mixture uniformly over second coat to achieve surface texture equal to samples accepted by Architect.
- b. Apply smooth or decorative finish coat over second coat to achieve finish coat equal to samples accepted by Architect. Smooth coat shall meet standards for non-skid surface.
- c. Minimum Thickness: 1/16 inch.
4. Color Coat: Apply 2 uniform coats of color coat over finish coat.
5. Minimum Thickness of Completed Pedestrian Traffic Coating: 1/4 inch.

### 3.5 PROTECTION

- A. Protect completed pedestrian traffic coating from pedestrian traffic for a minimum of 24 hours after application of color coat.
- B. Protect completed pedestrian traffic coating from damage during construction and from continuous contact with solvents.

