



SECTION 09727

FINISHES

## **SUNEPOXY 100**

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. Resurfacing of exterior concrete pavements.
- B. Resurfacing of interior concrete floors.
- C. Repair of vertical and overhead horizontal surfaces.
- D. Elimination of water bearing cracks.
- E. Moisture reduction barrier.
- F. Moisture vapor emission testing.
- G. Surface preparation.
- H. Furnishing and installation of seamless color chip flooring.

#### 1.2 RELATED SECTIONS

- A Section 03330 - Architectural Concrete.
- B Section 03925 - Concrete Resurfacing and Rehabilitation.
- C Section 03300 - Cast-In-Place Concrete:
  - 1. Concrete slabs on or below grade shall be installed over an effective moisture vapor barrier.
  - 2. Concrete slabs shall be cured 30 days, be structurally sound and have a steel trowel finish.
  - 3. Surface shall be well sloped to drains, straight and level with the permissible degree of tolerance of 1/4" in 10'-0" in any direction.
  - 4. No curing compounds or surface contaminants shall be used in placing new concrete.

### 1.3 REFERENCES

- A ASTM C1028 – Standard Test Methods for Coefficient of Friction.
- B ASTM D1242 – Standard Test Methods for Abrasion Resistance.
- C ASTM D570 – Standard Test Methods for Water Absorption.
- D ASTM D229 – Standard Test Methods for Chemical Resistance by 12 Reagents.

### 1.4 SUBMITALS

- A Submit under provisions of Section 01300.
- B Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.
- C Shop Drawings:
- D Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- E Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, represent actual product, color, and patterns.

### 1.5 QUALITY ASSURANCE

- A Manufacturer Qualifications.
- B Installer Qualifications.
- C Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship:
  - 1. Finish areas designated by Architect.
  - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
  - 3. Refinish mock-up area as required to produce acceptable work.

### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Properly label and identify all containers as Sundeck materials.
- B. Deliver and store all materials to prevent damage to product and containers.
- C. Store all material in a clean, dry location where temperatures are maintained between 40 and 90 degrees Fahrenheit.
- D. Comply with manufacture's Material Safety Data Sheets (MSDS) for delivery, storage and handling of products.

### 1.7 PROJECT CONDITIONS

- A Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- B Exterior Surfaces: Do not apply materials in wet weather.

## PART 2 – PRODUCTS

### 2.1 MANUFACTURER

- A Acceptable Manufacturer: SUNDECK Products Inc, U.S.A., which is located at: 805 Ave H Suite 508; Arlington TX, 76011; ASD. Toll Free Tel: 877-478-6335; Email: [request info: products@sundek.com](mailto:requestinfo@sundek.com); Web: [www.sundek.com](http://www.sundek.com);

### 2.2 SUNEPOXY 100 SYSTEM

- A Sundek SunEpoxy 100 Surface Finish: SunEpoxy 100 as supplied by Sundek Products.
- B Flooring system shall consist of a primer, body and top coat at 15-20 mils thick with color and texture to match the sample chosen.

### 2.3 ACCEPTABLE MATERIALS

- A Sundek SunEpoxy 100 Clear & Pigmented:
1. 100% solids two part Epoxy coating for Primer, Body and Top coat.
- B Sundek SunChips:
1. Acrylic paint chips for texture and color broadcast effect.
- C Sundek SunFlek:
1. Color Quartz for Texture and Color effect.
- D No materials can be substituted other than those specified by Sundeck Products, Inc.

### 2.4 PERFORMANCE

- A Gloss (60 degrees): 90-95
- B Hardness (sward): 30
- C Tabor Abrasion: (1000 gm load, 1000 cycles, CS-17 wheel): 40 mg loss.
- D Flexibility (ASTM D-222): Passes 1/8 inch.
- E Impact Resistance (ASTM D-2794): Passes 160 inch-pounds, direct and reverse.
- F Chemical Resistance: (ASTM D-1308 7-day exposure) Unaffected by the following:
1. Brake Fluid
  2. Skydrol B-4
  3. Gasoline
  4. Hydraulic Fluid #83282
  5. Mineral Spirits
  6. Xylene
  7. 50% Sodium Hydroxide
  8. 25% Hydrochloric Acid
  9. 25% Sulphuric Acid

## PART 3 – EXECUTION

### 3.1 EXAMINATION

#### A. Verification of Conditions:

1. Inspect surfaces to receive seamless color and/or chip flooring.
2. Conduct calcium chloride moisture vapor emission testing according to ASTM 1869-04. If test reading is above three pounds, consult Sundeck Products before proceeding.
3. Before starting work, report in writing to the architect any unsatisfactory condition.
4. Application of any material shall signify that surfaces have been inspected and are satisfactory.

### 3.2 SURFACE PREPARATION

- A. Remove substrate ridges and protrusions by grinding or sanding.
- B. Concrete surfaces to receive flooring system shall be abraded to a minimum of 5 mil profile using shot blasting or diamond grinding.
- C. Control joints and cracks should be filled with Epoxy paste crack treatment according to the manufacturer's instructions. All expansion joints should be honored.

### 3.3 INSTALLATION

- A. Allow sufficient time for the installation of the flooring system. At no time shall the speed of project completion be allowed to detrimentally affect the application.
- B. Provide sufficient light, power, heat and working conditions to permit proper application of the material. Substrate temperature shall be at a minimum of 50°F during application and for 48 hours thereafter.
- C. Apply SunEpoxy 100 clear as primer at the rate of 200-250 sq. ft. per gallon. Allow to cure 6-8 hours.
- D. Install SunEpoxy 100 pigmented as body coat at the rate of 200-250 sq. ft. per gallon. Broadcast premixed color chips, quartz or any selected aggregate into the wet coat.
- E. After the body coat has cured, sweep excess chips and scrape aggressively with drywall scraper. Sweep again and vacuum loose chips.
- F. Apply finish coat of HT Clear at a rate of 250-300 sq. ft. per gallon.

### 3.4 PROTECTION OF FINISHED WORK

- A. Prohibit traffic on floor for 24 hours after installation.
- B. Avoid heavy abrasion and chemical exposure for three days after installation.

### 3.5 MAINTENANCE

- A. Floor should be cleaned with ammonia and water or a mild, non-filming detergent. For difficult stains, paint thinner may be used without harming the finish.
- B. Waxing is not required but may be done if desired. Periodic reglazing will completely renew the surface. This should be accomplished according to manufacturer's written instructions.

**END OF SECTION**