



SECTION 09727

FINISHES

**SUNEPOXY 54**

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: [requestinfo@sundek.com](mailto:requestinfo@sundek.com); Web: [www.sundek.com](http://www.sundek.com);

### 2.2 SUNEPOXY 54 SYSTEM

- A SunEpoxy 54 Surface Finish: SunOne as supplied by Sundeck Products.
- B The flooring system shall consist of a primer, body and a finish coat. Total dry film thickness shall be 4-6 mils.

### 2.3 ACCEPTABLE MATERIALS

- A Sundek SunEpoxy 54 Clear:
  - 1. 54% two part epoxy clear and pigmented 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.

## PART 3 – EXECUTION

### 3.1 EXAMINATION

- A. Verification of Conditions:
  - 1. Inspect surfaces to receive seamless color 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. Prime with SunEpoxy 54 clear at the rate of 250-300 sq. ft. per gallon. Allow to cure one to three hours.
- D. Apply SunEpoxy 54 pigmented at the rate of 250-300 sq. ft. per gallon. Broadcast premixed color chips 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 SunEpoxy 54 clear at a rate of 300-350 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**