



SECTION 03360

CONCRETE FINISHES

SUNSTONE

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. Repair of damaged structural members.
- E. Elimination of water bearing cracks.
- F. Moisture reduction barrier.

1.2 RELATED SECTIONS

- A Section 03300 - Cast-In-Place Concrete: New concrete.
- B Section 03330 - Architectural Concrete.
- C Section 02751 - Portland Cements Concrete Paving.
- D Section 03925 - Concrete Resurfacing and Rehabilitation.

1.3 REFERENCES

- A ANSI A118.4 - Specifications for Latex Portland Cement Mortar.
- B ASTM C67 - Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.
- C ASTM A756 D & E – Standard Test Methods for Aging Test by Acceleration.
- D ASTM C1028 – Standard Test Methods for Coefficient of Friction.
- E ASTM D1242 – Standard Test Methods for Abrasion Resistance.
- F ASTM D570 – Standard Test Methods for Water Absorption.
- G 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;

2.2 SUNSTONE SYSTEM

- A Limestone Modified Cementitious Overlay: Sundek SunStone as manufactured by Sundek Design Products.

2.3 ACCEPTABLE MATERIALS

- A Sundek Premix:
 - 1. Copolymer modified thin set cement coating to be used in conjunction with Sundek Additive, available in Tan, Grey, Red and White colors.
- B Sundek Primer/Additive:
 - 1. Vinyl acetate emulsion with 53% solids content.
- C Sundek SunStone Premix:
 - 1. Limestone modified thin set cement overlay.
- D Sundek SunStain Color Effect:
 - 1. Water based acrylic colorant.
- E Sundek Crystal Clear:
 - 1. Solvent Based Urethane Sealer at 30% Solids.
- F No materials can be substituted other than those specified by Sundeck Products, Inc.

2.4 PERFORMANCE

- A Freeze-Thaw (ASTM C67).....No Breakage < ½ % weight loss.
- B Slip Resistance (S.C.O.F., ASTM C1028).....81 Wet-1.03 dry.
- C Abrasion (ASTM D1242).....0328 in. = 3000 psi Concrete.
- D Chemical Resistance (ASTM D229) 12 Reagents.....Unaffected.
- E Impact Resistance (Mil D3134 F).....No Breakage / < .62 in.
- F Concentrated Load Test (500 lb).....No Breakage / < .001 in.
- G Compressive Strength (ASTM C109).....4950 psi.
- H Tensile Strength (ASTM C190).....410 psi.
- I Flexural Strength (ASTM C348).....1200 psi.

PART 3 – EXECUTION

3.1 EXAMINATION

- A Concrete shall be structural sound, with required reinforcements and footings. Place and finish concrete in a skilled and workmanlike manner.
- B Install control joints throughout concrete as required to prevent cracking.
- C Provide surface drainage at all points no less than 1/4 inch per linear foot. Drainage correction is not guaranteed in the Sundek SunStone installation.

3.2 PREPARATION

- A. Clean concrete surface with high-pressure power washer.
- B. Remove dirt, grease, oil, curing compounds or other foreign substances, which may prevent proper bonding.
- C. Provide protective masking at all adjacent areas not to be coated.
- D. Repair cracks, surface damage and any corrective measures on concrete.

3.3 APPLICATION

- A. Spray or roll Sundek Primer/Additive on area to be coated. Allow to dry and become transparent.
- B. SUNDEK BASE COAT (Required for blending repairs and profiling rough concrete surfaces):
 - 1. Apply Sundek Base Coat using squeegee or trowel uniformly on area to be coated to a minimum thickness of 1/16" and allow drying.
- C. Mix Sundek Premix for Base Coat Application using mechanical agitation for 3-6 minutes as per mix design:
 - 1. Sundek Additive/Primer.....0.5 gal.....4.5 lbs
 - 2. Sundek Premix.....1 bag.....45 lbs
 - 3. *Clean Water.....1 gal
 - 4. *Water ratio will vary with temperature and humidity.
- D. Mix Sundek SunStone Premix for using mechanical agitation for 3-6 minutes as per mix design:
 - 1. Sundek SunStone Premix.....1 bag..... 50 lbs
 - 2. *Clean Water.....1.25 gal
 - 3. *Water ratio will vary with temperature and humidity.
- E. Trowel SunStone premix over surface at an average of ¼ in thickness in a skip trowel fashion.
- F. Knock down SunStone texture after it loses its gloss with a wet sponge to smooth out imperfections.
- G. Carve out selected pattern.
- H. Stain SunStone surface to requested color effect.
- I. OPTIONAL SCORING EFFECTS - Score desired pattern into Sundek SunStone using masonry cutting wheel and grinder.
- J. Apply Sundek Crystal Clear Finish Coat with roller or sprayer.
- K. Remove all protective masking upon drying of Sundek Clear Finish Coat.

3.4 PROTECTION

- A. Protect all phases of Sundek SunStone Effect from moisture, freezing and foot traffic for 24 hours. Prevent vehicular traffic for 72 hours from finish of application.
- B. Owner or General Contractor will provide protection for finished Sundek SunStone Effect from damage by others until acceptance by responsible party.

3.5 MAINTENANCE

- A Power wash or rinse thoroughly on a regular basis as needed.
- B A mild solution of muriatic acid can be use for tougher stains.
- C Touch up and perform all minor repairs as needed with touch up kits provided by Sundek during installation.
- D Re-coloring of coating can be done to refresh the appearance and promote longevity.
- E Contact your Sundek dealer for further assistance.

END OF SECTION