

SECTION 033543
FORMATTED SPECIFICATION
SUNDEK® BURNISHED CONCRETE SYSTEM

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Installation of the SUNDEK® Burnished Concrete System including, substrate preparation, substrate repairs, materials, and installation process.
- B. Summary: A burnished concrete coloring system, including grinding, honing and densifying stain application.

1.2 RELATED SECTIONS

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

1.3 REFERENCES

- A. ASTM D523 Standard Test Method for Measurement of Gloss of High-Gloss Surfaces by Abridged Goniophotometry.
- B. ASTM D-2047-11 Standard Specification for Coefficient of Friction.
- C. ANSI A 326.3 Dynamic Coefficient of Friction.
- D. ICRI 310.2R-2013 Selecting & specifying concrete surface preparation for sealers, coatings, polymer overlays, and concrete repair.
- E. ACI 310.1 Specification for Polished Concrete Slab Finishes.
- F. CPC Polished Concrete Aggregate Exposure Chart.

1.4 SUBMITALS

- A. Product Data: Manufacturer's data sheets on each product to be used, including:
- B. Shop Drawings.
- C. Selection Samples: For each finish product specified, a complete set of color chips representing manufacturer's full range of available colors and patterns.
- D. 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. Installer must be a licensed SUNDEK® installation contractor with 5 years' experience in similar projects.

D. 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. Completed mock up if acceptable may become part of the finished 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 Safety Data Sheets (SDS) 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

Acceptable Manufacturer: Sundeck Products USA, Inc., which is located at: 616 E. AVENUE J, GRAND PRAIRIE, TX 75050

USA. Toll Free Tel: 877-478-6335; Email: [request info: product@sundek.com](mailto:product@sundek.com);

Web: www.sundek.com;

2.2 SUNDEK® PRODUCTS INC. BURNISHABLE CONCRETE SYSTEM.

Densifying Stain concentrate as manufactured by SUNDEK® Products Inc.

2.3 ACCEPTABLE MATERIALS

- A. SUNDEK® SunBurn Burnishable Stain.
- F. SUNDEK® SunBurn Burnish Guard.

2.4 SYSTEM INTEGRITY

- A. Sundeck Burnished Concrete System is an engineered system and requires all components to perform as specified. No substitutions are permitted. Any substitution of products or components will void any warranty expressed or otherwise implied.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Concrete shall be structurally 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 Classic Texture installation.
- D. Refer to section 033000, cast in place concrete specification.

3.2 PREPARATION

- A. Clean concrete surface with high-pressure power washer. Surface shall be a CSP-1-2 according to ICRI 310.2R-2013.
- B. Remove dirt, grease, oil, curing compounds or other foreign substances, which may prevent proper bonding. Any demolition of existing coatings may require mechanical removal to insure surface 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 PROJECT DETAILS

- A. Specific project details will be as follows.
- B. Finished texture shall be SUNDEK BURNISHED CONCRETE SYSTEM.
- C. Class of aggregate exposure shall be “INSERT CLASS HERE” (reference CPC aggregate exposure chart).
- D. Primary color shall be “INSERT COLOR HERE”.
- E. Secondary color shall be “INSERT COLOR HERE”.

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3.4 APPLICATION

1. Grind the surface using a 60/80 grit metal bonded diamond tool.
2. Clean the surface to remove excess dust.
3. Grind the surface using a 100-grit ceramic bonded diamond tool.
4. Clean the surface to remove excess dust.
- 5.hone the surface using a 200-grit resin bonded diamond tool.
6. Clean the surface to remove excess dust.
7. Burnish the surface using a 400-800 grit diamond impregnated pad.
8. Mix the Sun-Burn color and spray apply at the rate of 400-500 square feet per gallon. Follow the spray application using a micro-fiber or soft bristle broom to work in the material. Do not leave streaks in the surface.
9. Allow the material to dry 20-30 minutes. Dry to the touch.
10. Burnish the surface using a 1500-grit diamond impregnated pad to improve the surface gloss and remove any residual color.
11. Apply a 2nd coat the same as the first using the sprayer and a micro-fiber or soft bristle broom.
12. Allow the material to dry 20-30 minutes and evaluate the color. If needed a 3rd coat may be applied using the same method.
13. Once the application has been completed allow the surface to dry a minimum of 2 hours.
14. Burnish the surface using a 1500-grit diamond impregnated pad to improve the surface gloss and remove any residual color.
15. Apply the Sun-Burn Burnish Guard at the rate of 1500-2000 square feet per gallon. Follow the application with a micro-fiber mop. Do not leave streaks.
16. Allow the material to dry for 45-60 minutes and burnish using a 1500 grit diamond impregnated pad.
17. Apply a 2nd coat the Burnish guard at the same rate and method.
18. Allow the material to dry for 45-60 minutes and burnish using a 1500 grit diamond impregnated pad.

3.5 PROTECTION

- A. Protect all phases of Sundek Burnished Concrete System 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 Burnished Concrete Finish from damage by others until acceptance by responsible party.

3.6 MAINTENANCE

- A. Keep clean using a mop or auto-scrubber at regular intervals depending on traffic.
- B. A mild solution using a neutral pH cleaner may be used as needed for tougher stains.
- C. Refer to the SUNDEK Maintenance technical data sheet for more details.
- D. Contact your Sundek dealer for further assistance.

END OF SECTION

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