



SECTION 03360

CONCRETE FINISHES

**** NOTE TO SPECIFIER **** Kemiko Concrete Stains; Concrete Finishes.

This section is based on the products of Kemiko Concrete Stains, which is located at:

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Kemiko Stone Tone Stain transforms an ordinary concrete slab into a luxurious floor that resembles marble or glazed stone. When concrete is stained and scored Kemiko creates the appearance of expensive flooring at a fraction of the cost. Unlike paint, Kemiko Stone Tone Stain reacts with the minerals present in the concrete giving it the look and feel of natural stone. Each concrete slab accepts the stain in varying degrees of intensity creating stunning, multi-hued color variations and an uneven surface that looks perfectly aged. Kemiko Stone Tone Wax or Sealer can be applied to further enhance depth of color and provide surface protection. We look forward to assisting you or your client in creating beautiful, durable, and affordable stained concrete projects.

PART 1 GENERAL

1.1 SECTION INCLUDES

**** NOTE TO SPECIFIER **** Delete items below not required for project.

- A. Concrete Floor Stain.
- B. Polymer Stain.
- C. Concrete Floor Sealer.
- D. Concrete Floor Wax.
- E. Concrete Floor Polish.

1.2 RELATED SECTIONS

**** NOTE TO SPECIFIER **** Delete any sections below not relevant to this project; add others as required.

- A. Section 03300 - Cast-in-Place Concrete.
- B. Section 09930 - Stains and Transparent Finishes.

1.3 REFERENCES

**** NOTE TO SPECIFIER **** Delete references from the list below that are not actually required by the text of the edited section.

- A. ASTM C 494 - Standard Specification for Chemical Admixtures for Concrete.
- B. ASTM C 979 - Standard Specification for Pigments for Integrally Colored Concrete.

- C. ASTM D 3359 - Standard Test Methods for Measuring Adhesion by Tape Test.
- D. ASTM D 3363 - Standard Test Method for Film Hardness by Pencil Test.
- E. South Coast Air Quality Management District (SCAQMD) Rule 1113 (2008).

1.4 SUBMITTALS

- 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.
 - 4. Maintenance Instructions.

**** NOTE TO SPECIFIER ** Delete selection samples if colors have already been selected.**

- C. Selection Samples: For each finish product specified, a sample of the manufacturer's full range of available colors and patterns.
- D. Installer's Project References: List projects of similar type and scope completed successfully within the last three (3) years. Include project name and location, name of Architect, and type and quantity of material applied.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: All primary products specified in this section will be supplied by a single manufacturer with a minimum of ten (10) years experience.
- B. Installer Qualifications: All products listed in this section are to be installed by a single installer with demonstrated experience in installing products of the same type and scope as specified.
- C. Pre-installation Meeting: Convene a pre-installation meeting before start of Work. Require attendance of parties directly affecting work of this section, including Contractor, Architect, and Applicator. Review surface preparation, application, protection, and coordination with adjacent surfaces.

**** NOTE TO SPECIFIER ** Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.**

- D. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Mock-up 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 completed project.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation. Store materials in a clean, dry area indoors in accordance with manufacturer's instructions. Keep containers sealed until ready for use.
- B. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

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. Do not apply materials in wet weather.

1.8 WARRANTY

- A. At project closeout, provide to Owner or Owners Representative an executed copy of the manufacturer's standard limited warranty against manufacturing defect, outlining its terms, conditions, and exclusions from coverage.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Kemiko Concrete Stains, which is located at: P. O. Box 1109 ; Leonard, TX 75452; Tel: 903-587-3708; Fax: 903-587-9038; Email: sales@kemiko.com; Web: www.kemiko.com
- B. Contact Information: Kemiko, PO Box 1109, Leonard, Texas 75452. ASD. Tel: (800-875-4596). Fax: (903) 587-9038. E-Mail: sales@kemiko.com. Web: www.kemiko.com.

**** NOTE TO SPECIFIER ** Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.**

- C. Substitutions: Not permitted.
- D. Requests for substitutions will be considered in accordance with provisions of Section 01600.

**** NOTE TO SPECIFIER ** Delete the next article if Concrete stain is not specified.**

2.2 CONCRETE STAIN

- A. Kemiko Stone Tone Stain: Combination of acid solution, wetting agents, and metallic ions. When mixed with water and applied to Portland cement, chemically combines to form permanent color.

**** NOTE TO SPECIFIER ** Select specified Color(s) from the following eight options. Delete paragraphs not applicable on this project. Coordinate locations and patterns of multiple colors with Contract Drawings.**

1. Color: Malay Tan.
2. Color: Green Lawn.
3. Color: Black.
4. Color: Cola.
5. Color: English Red.
6. Color: Aqua Blue.

7. Color: Golden Wheat.
8. Color: Vintage Umber.
9. Weight per gallon: 9.5 lbs (4.3kg).
10. VOC: 0 g/L (Meets final SCAQMD Rule 1113 (2008)).

**** NOTE TO SPECIFIER ** Concrete floor sealer or concrete floor wax may be applied over concrete floor stain. Delete the entire article if not required. Consult Kemiko for additional information.**

2.3 CONCRETE SEALER

1. Stone Tone Sealer: Acrylic water-based, non-yellowing urethane clear sealer.
2. Solids (By Volume): 30 percent.

**** NOTE TO SPECIFIER ** Select Gloss. Delete one of the next two paragraphs.**

3. Gloss: High gloss.
4. Gloss: Flat to satin gloss.

**** NOTE TO SPECIFIER ** Blushing refers to the formation of white areas on fully dried sealer coats when water is allowed to stand on the coating. Kemiko Stone Tone Sealer is highly resistant to blush, but not impervious. Should blush occur, it will disappear when the surface dries.**

5. Resistant to blush.
 6. VOC: Less than 50 g/L. Meets final SCAQMD Rule 1113 (2008).
 7. Pencil Hardness, ASTM D 3363: 2H.
 8. Dry Tape Adhesion, ASTM D 3359: 5A-5B.
 9. Dry Time at 70F (21C) with 50 percent RH:
 - a.Recoat: 1 hour.
 - b.Foot Traffic: 4 hours.
 - c.Full Cure: 48 hours.
- A. Kemiko Stone Tone Buff-On Wax: Non-yellowing, fast drying, aliphatic petroleum wax.
1. Dry Time at 70F (21C) with 50 percent RH: 20 -30 Minutes.
 2. Coverage: 250 to 350 sq ft per gallon
- B. Sta-Natural: Waterborne silane / siloxane emulsion for sealing stained concrete and other cementitious substrates.
1. Gloss: Clear flat gloss (Natural Sheen).
 2. Solids (By Volume): 10 percent.
 3. Weight per gallon: 9.5 lbs (4.3kg).
 4. Dry Time at 70F (21C) with 50 percent RH:
 - a. Recoat: 1 hour.
 - b. Foot Traffic: 4 hours.
 - c. Full Cure: 48 hours.
 5. VOC: 0 g/L (Meets final SCAQMD Rule 1113 (2008)).

**** NOTE TO SPECIFIER ** Delete the next article if floor polish is not required.**

2.4 FLOOR POLISH

- A. Easy Shine: Water based acrylic polymer interior floor polish.
1. Gloss (1 coat at 60F): 90+ (2 thin coats recommended).
 2. Viscosity, CPS at 73 F, RFV., #1 at 20 RPM: Less than 20.
 3. Specific Gravity at 73 F: 8.67.
 4. Solids (By Weight): 20 percent.
 5. Weight per gallon: 9.5 lbs (4.3kg).
 6. Dry Time at 73F (21C) with 40 percent RH: 20 minutes.

7. VOC: 0 g/L (Meets final SCAQMD Rule 1113 (2008)).

**** NOTE TO SPECIFIER ** Delete the next article if Polymer Concrete stain is not specified.**

2.5 POLYMER STAIN

A. Rembrandt Polymer Concrete Stain: Water-extended, acrylic urethane polymer solution with added pigments.

1. Volume Solids: 20 percent.
2. VOC: Less than 30 g/L. Meets final SCAQMD Rule 1113 (2008).

**** NOTE TO SPECIFIER ** Select specified Color(s) from the following 18 options. Delete paragraphs not applicable on this project. Coordinate locations and patterns of multiple colors with Contract Drawings.**

3. Color: Phthalo Blue.
4. Color: Medium Yellow.
5. Color: Yellow Oxide.
6. Color: Monoazo Red.
7. Color: Red Oxide.
8. Color: Orange.
9. Color: Phthalo Green
10. Color: Raw Umber.
11. Color: Raw Sienna.
12. Color: Burnt Umber.
13. Color: Burnt Sienna.
14. Color: Violet.
15. Color: Black
16. Color: White
17. Color: Adobe
18. Color: Sand
19. Color: Oyster
20. Color: Tweed

**** NOTE TO SPECIFIER ** Rembrandt polymer stain must be finished with a clear topcoat. Delete if Rembrandt Stain is not specified. Consult Kemiko for additional information.**

2.6 CLEAR TOPCOAT

A. Apply a clear topcoat sealer in accordance with section 09960.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly, in accordance with manufacturer's instructions.
- B. Protection:

1. Protect walls and surrounding surfaces not to receive concrete floor stain.
2. Do not allow stain to come in contact with wood or metal surfaces.

C. Prepare concrete surface in accordance with manufacturer's instructions.

**** NOTE TO SPECIFIER ** Retain the following paragraph when applying over new concrete surfaces.**

D. Concrete shall be as specified in Section 03300. Ensure concrete is a minimum of 28 days old.

E. Ensure surface is clean, dry, structurally sound, and free from dirt, dust, oil, grease, solvents, paint, wax, asphalt, concrete curing compounds, sealing compounds, surface hardeners, bond breakers, adhesive residue, and other surface contaminants.

F. Do not acid wash or use heavy alkali cleaners.

3.3 INSTALLATION - KEMIKO STONE TONE ACID STAINS AND TOPCOATS

A. Install in accordance with manufacturer's instructions.

B. Apply stain in accordance with manufacturer's instructions at locations indicated on the drawings.

C. Control depth of color by adjusting volume of stain applied.

D. Apply 2 coats of stain. Allow to completely dry after each coat. Do not scrub clean between coats.

E. After area has completely dried, scrub off residue in accordance with manufacturer's instructions. Allow to completely dry.

**** NOTE TO SPECIFIER ** Delete the next paragraph if concrete floor wax is not required.**

F. Concrete Buff-On Floor Wax: Apply concrete floor wax over interior concrete floor stain in accordance with manufacturer's instructions.

**** NOTE TO SPECIFIER ** Delete the next paragraph if concrete floor sealer is not required.**

G. Concrete Floor Sealer: Apply concrete floor sealer over concrete floor stain in accordance with manufacturer's instructions.

****NOTE TO SPECIFIER** Delete the next paragraph if Easy Shine is not required.**

H. Concrete Floor Polish: Apply floor polish over Stone Tone Sealer in accordance with manufacturer's instructions.

I. Keep material containers closed when not in use to avoid contamination.

3.4 INSTALLATION - REMBRANDT POLYMER STAINS AND TOPCOATS

A. Install in accordance with manufacturers instructions.

**** NOTE TO SPECIFIER ** Delete the next paragraph if concrete floor sealer is not required.**

B. Concrete Floor Sealer: Apply concrete floor sealer over concrete floor stain in accordance with manufacturer's instructions.

****NOTE TO SPECIFIER** Delete the next paragraph if Easy Shine is not required.**

- C. Concrete Floor Polish: Apply floor polish over Stone Tone Sealer in accordance with manufacturer's instructions.
- D. Keep material containers closed when not in use to avoid contamination.

3.5 PROTECTION

- A. Protect stained surfaces from damage during construction.
- B. Protect surfaces from foot traffic for a minimum of 24 hours.
- C. Do not wash surfaces for a minimum of 48 hours.

END OF SECTION