

SECTION 09 97 23

CONCRETE AND MASONRY COLOR TREATMENT

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\*\* NOTE TO SPECIFIER \*\* Nawkaw Corporation; and NawTone-K stain product.

This section is based on the products of Nawkaw Corporation, which is located at:

370 Commerce Blvd

Athens, GA 30606

Toll Free Tel: 866-462-9529

Tel: 706-355-3217

Fax: 706-355-9199

Email: info@nawkaw.com

Web: <http://www.nawkaw.com/>

In 1988, Nawkaw was founded in Toronto, Canada, by CEO, Russell Gray. Ever since, Nawkaw has pioneered the concrete and masonry industry by manufacturing innovative, high-quality, and environmentally-friendly products that contain little to zero VOC. Nawkaw offers both commercial and residential services and strives to invent techniques that result in outstanding finishes on concrete and masonry. By applying color and adding texture to your preferred building material, we can create any look you desire.

This specification includes Nawkaw's NawTone-K mineral stain.

Since 1987, Nawkaw has had a track record of excellent performance, product testing, and innovation—setting the standard of excellence for the coatings industry. Nawkaw installation teams have won multiple awards. Nawkaw's line of silicate based mineral stains contains zero VOCs and forms a chemical bond with the substrate making it stronger. NawTone-K is a color solution ideal for concrete.

**PART 1 GENERAL**

* 1. SECTION INCLUDES

A. Mineral Stain

1.2 RELATED SECTIONS

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

A. Section 03 30 00 - Cast-in-Place Concrete.

B. Section 03 11 16.13 - Concrete Form Liners.

C. Section 03 35 23 - Exposed Aggregate Concrete Finishing.

D. Section 03 41 16 - Precast Concrete Slabs.

E. Section 03 45 13 - Faced Architectural Precast Concrete.

F. Section 03 47 13 - Tilt-Up Concrete.

G. Section 03 49 00 - Glass-Fiber-Reinforced Concrete.

H. Section 03 50 00 - Cast Decks and Underlayment.

I. Section 04 20 00 - Unit Masonry.

J. Section 04 40 00 - Stone Assemblies.

K. Section 09 22 00 - Stucco.

L. Section 09 24 13 - Adobe Finish.

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 744 - Standard Specification for Prefaced Concrete and Calcium Silicate Masonry Units.

B. SCAQMDR 1168 - South Coast Air Quality Management District's (SCAQMD) Volatile Organic Compounds (VOC) Rule 1168.

1.4 SUBMITTALS

A. Submit under provisions of Section 01 30 00 - Administrative Requirements.

B. Product Data: Manufacturer's data sheets on each product to be used, including:

1. Product characteristics.

2. Preparation instructions and recommendations.

3. Storage and handling requirements and recommendations.

4. Installation methods.

\*\* NOTE TO SPECIFIER \*\* Delete selection samples if colors have already been selected and specified herein or indicated on the Drawings.

C. Preliminary Samples: To be provided as required for the specific project.

D. Verification Samples: To be provided on the specific materials to be treated when they are available in plant or on site.

E. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: An international manufacturer with a minimum of 20 years of experience in the production of the stains and coatings of type specified.

B. Installer Qualifications: Installer licensed by Nawkaw to apply the stain products specified and with a minimum of three years documented experience in applying stains and coatings similar in type and scale to this Project.

C. Environmental Regulations: The masonry stain material to be applied is in compliance with federal, provincial and local environmental Volatile Organic Compounds (VOC) regulations.

\*\* 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: Apply a minimum one square foot sample of each type of color application required.

1. Finish areas designated by Architect.

2. Prepare each sample in an area where it will be exposed to the same conditions as will be present on the building during curing.

3. Samples should be viewed from a minimum distance of 20 feet.

4. Do not proceed with remaining work until color and finish is approved by Architect.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store and handle products in accordance with requirements of manufacturer.

C. Store materials inside if possible, away from open flame. Store in a secure area to avoid tampering and contamination. Water-based materials must be kept from freezing.

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.

1.8 WARRANTY

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

1. Duration: 25 years.

**PART 2 PRODUCTS**

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Nawkaw Corporation, which is located at: 370 Commerce Blvd; Athens, GA 30606; Toll Free Tel: 866-462-9529; Tel: 706-355-3217; Fax: 706-355-9199; Email: info@nawkaw.com; Web: <http://www.nawkaw.com/>

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

B. Substitutions: Not permitted.

C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 MINERAL STAIN

\*\* NOTE TO SPECIFIER \*\* NawTone-K is a mineral stain that uses silicate as a binding agent to form a permanent chemical bond with substrates. The addition of lightfast, inorganic pigments enables a wide range of colors to be produced. NawTone-K exhibits the overall characteristics of being: UV resistant, lightfast, penetrating, aspiratory, durable, odorless, mold and mildew resistant and environmentally friendly.

A. NawTone-K

1. General: NawTone-K is a silicate based mineral stain solution used to color treat concrete surfaces to provide an opaque, color wash, or semi-transparent finish. NawTone-K offers vapor permeability, contains zero VOCs and forms a chemical bond with the substrate.

2. Properties:

• Viscosity: (72° F) 60°-80° KU

• pH: ~11

• Finish: flat

• Nonflammable

• VOC: 0 g/L (ASTM D6886)

• Abrasion Resistance: excellent

• Water Vapor Permeance: 4.5x10-6 g/Pa s m2

• Water Diffusion Resistance: sd(H2O)<0.01 m

• UV Resistant–Accelerated Weathering

(ASTM G154): pass

3. Finish:

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs and delete the one not required.

a. Color: To match existing substrate (masonry or concrete).

b. Color: Formulate to color as selected by the Owner or Architect.

**PART 3 EXECUTION**

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

\*\* NOTE TO SPECIFIER \*\* Select one or both of the following two paragraphs as applicable. Delete if not applicable.

C. Verify that new masonry and concrete have cured at least 48 hours prior to starting work using NawTone-K.

D. Verify that surfaces to receive work have a neutral pH, are clean, dry and free of efflorescence.

E. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

B. Clean surfaces thoroughly prior to installation. Allow surfaces to dry completely before applying coating.

C. Verify that walls, masonry, concrete, stucco, block split faced/fluted and mortar that may have been treated with any form of chemical/acid wash are neutralized.

D. Treat alkali or efflorescence with proper neutralizing compounds as recommended by masonry supplier before stain application.

\*\* NOTE TO SPECIFIER \*\* Note that a neutral pH is required to maintain the manufacturer's Warranty.

E. Before application, verify that the masonry walls have a neutral pH.

F. Before application, verify that surface to be treated is clean, dry and contains no frozen water.

G. Mix products as recommended immediately prior to application.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Apply stain using airless spray pump to help control airborne particles or overspray. If site conditions prohibit spray application, apply by hand; utilizing brushes and rollers.

C. Do not proceed with work when ambient temperatures are less than 41 degrees F (5 degrees C) or greater than 110 degrees F (43 degrees C).

D. Allow manufacturer's specified drying time for each coat before applying next coat (if required).

E. Verify color consistency. Recoat areas where blotches, blemishes or imperfections are present.

3.4 FIELD QUALITY CONTROL

A. Verify color consistency. Recoat any areas that are unacceptable.

3.5 PROTECTION

A. Protect installed products until completion of project.

B. Protect prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels as required.

C. Protect shrubs, metal, wood trim, glass, asphalt and other building hardware during application from overspray.

D. Do not permit mist (if spraying) or liquid to drift onto surrounding properties or parking lots.

E. Touch-up, repair or replace damaged products before substantial completion.

END OF SECTION