

SECTION 09 97 23

CONCRETE COATINGS

Note to Specifier: This guide specification describes a method of preparing sealing exterior exposed aggregate concrete surfaces. These products are manufactured by Clemons Concrete Coatings of Nashville, Tennessee, www.ccc-usa.com.

Specification Section numbers are based on 2004 MasterFormat published by Construction Specifications Institute. Verify actual section numbers used for submittals and substitutions.

Remove all Notes to Specifier from the final document.

Inspect existing concrete to determine it is suitable for applying exposed aggregate sealer. Concrete must be sound.

Require a segment of the concrete to be sealed to the desired finish. Choose a location that will show the widest variation in surface conditions, including repairs. This mockup can be used to make everyone aware of what to expect.

Specify new concrete in Section 03 30 00 Cast-in-place Concrete.

PART 1 GENERAL

1.1 SUMMARY

- A. This section includes sealer application over exposed aggregate concrete surfaces.

Note to Specifier: Verify section numbers shown below.

- B. Related Sections:
1. Section 01 25 00 - Substitution Procedures
 2. Section 01 33 00 - Submittal Procedures
 3. Section 03 00 00 - Cast-in-place Concrete

1.2 SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
1. Product Data: Submit manufacturer's data sheets for each product specified; crack filler, and concrete sealer.
 2. Samples: Submit samples of sealer for color selection and mockup.
- B. Operation and Maintenance Data – Submit manufacturer's recommendations for cleaning and maintaining sealed concrete.
- C. Submit list of projects completed by the installer. Include name and location of projects within 100 mile radius of project, completed within the last three years. Identify Architect of record, and provide contact information for Architect and Owner.

1.3 QUALITY ASSURANCE

- A. Installers Qualifications: Provide personnel who have been trained by concrete coating manufacturers, and have three years documented experience.

Note to Specifier: An effective way to ensure satisfactory results is to create a mockup on the actual surface to be sealed. Require a mockup of sufficient size, and select a portion of the concrete that will demonstrate the widest variety of conditions. Make everyone aware of variations that could occur in color, surface spots, cracks and crazing.

- B. Mockup: Provide mockups to illustrate desired finish, relationship with other materials and aesthetic effects.
 - 1. Locate mockup where directed by the Architect.
 - 2. When approved, mockup will become the standard by which the remaining Work will be judged and may become part of the Work.
 - 3. Do not proceed until approved by the Architect.
 - 4. Mockup Size: [4 x 8 feet] [4 x 10 feet]
- C. Pre-Installation Conference: Conduct a pre-installation conference five weeks before scheduled date to begin installation. Discuss the following;
 - 1. Access
 - 2. Temporary power
 - 3. Protection of adjacent areas
 - 4. Protection of finished concrete upon completion
- D. Single Source: Provide coating products including crack filler, and sealers from a Clemons Concrete Coatings.

1.4 PROJECT CONDITIONS

- A. Maintain environmental conditions during storage and application that complies with manufacturer's recommendations.
- B. Environmental Requirements:
 - 1. Apply only when surface and air temperatures are above 50 degrees F and below 90 degrees F.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURER

- A. Provide products manufactured by Clemons Concrete Coatings of Nashville, Tennessee; Telephone: 615-872-9099
www.ccc-usa.com
 - 1. Substitutions: [Not Permitted] [Under provisions of Section 01 25 00].

2.2 MATERIALS

- A. Degreaser neutralizer: Degreaser Neutralizer, as manufactured by Clemons Concrete Coatings, with the following characteristics:
 - 1. Biodegradable cleaner concentrate used to clean concrete and neutralize acid stain prior to sealing
 - 2. VOC: <250 g/L
 - 3. Flammability: 0

Note to Specifier: If surface is slick, etch concrete with Etch & Clean.

- B. Etch and clean: Provide Etch & Clean as manufactured by Clemons Concrete Coatings, with the following characteristics:
 - 1. Phosphoric acid cleaning agent designed to lightly etch concrete and create porosity on concrete surface
 - 2. Prime ingredient: Phosphoric acid
 - 3. VOC: 0 g/L
 - 4. Flammability: 0

Note to Specifier: Crack filler for Exposed Aggregate Concrete is available in Brown to closely resemble washed pea gravel, and Gray to closely resemble chipped gravel concrete.

- C. Crack filler: provide Crack Filler for Exposed Aggregate Concrete as manufactured by Clemons Concrete Coatings, with the following characteristics:
 - 1. Acrylic polymer modified
 - 2. Texture resembles exposed aggregate concrete

Note to Specifier: Super Seal-30 is available in clear, brown tinted for washed pea gravel, and gray tinted for chipped gravel.

- D. Sealer: Provide Super Seal-30 as manufactured by Clemons Concrete Coatings, with the following characteristics:
 - 1. 30% styrene-acrylic copolymer solution
 - 2. High gloss
 - 3. Oil-based

2.3 ACCESSORIES

- A. Supplemental Materials:

Note to Specifier: Super Grip can be added to second coat of Super Seal-30 for additional slip resistance.

- 1. Non-Skid Coating Additive: Provide Super Grip as manufactured by Clemons Concrete Coatings.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that substrate is ready to receive concrete coating. Do not begin until deficiencies have been corrected.
- B. Verify that necessary repairs have been completed prior to start of system installation.

3.2 PREPARATION

- A. Protect adjacent surfaces to prevent damage during concrete surface preparation, and sealer application.
- B. Clean concrete with degreaser neutralizer to remove all surface contaminants.
- C. Preparation for etch and clean: ensure the surface is free of dirt, wax, grease or other contaminants. Note to Specifier: Remove if etch and clean isn't necessary to increase porosity
- D. Preparation for crack filler: clean all cracks of dirt and loose material.
- E. Preparation for sealing: Concrete must be clean, dry, and sound.

3.3 FIELD QUALITY CONTROL

- A. Inspection: Inspect repaired concrete prior to application of sealer. Compare to approved mockup.
- B. Verify coverage rates of products to ensure proper application.

3.4 PROTECT AND CLEAN

- A. Protect finished concrete from wheeled traffic for the remainder of the construction period.
- B. Contractor shall provide maintenance and cleaning instruction upon completion of work.

END OF SECTION