

SECTION 03 35 00 CONCRETE FINISHING

PART 1 GENERAL.

1.1 SUMMARY

A. Section Includes:

1. Single application densifier hardener for new and existing concrete floors.
2. Precautions for avoiding staining concrete before and after application.

B. Related Section:

1. Cast-In-Place Concrete: Division 03 Cast-In-Place Concrete sections.

1.2 REFERENCES

A. American National Standards Institute (ANSI)

B. ASTM International (ASTM):

Abrasion Resistance ASTM C-779

Compressive Strength ASTM C-140

Impact Resistance ASTM C-805

Permeability ASTM C-642

Skid Resistance ASTM C-303

Reduced Vapor Transmission ASTM E-96

Weatherability/UV Stability ASTM G-23

C. USDA

1.3 SUBMITTALS

A. General: Submit listed submittals in accordance with Conditions of the Contract and Section [01 33 00 - Submittal Procedures] [_____].

B. Product Data: Submit product data, including manufacturer's technical data sheet, installation instructions and technical bulletins for specified products.

C. Certificates: Manufacturer's certification that the installer is acceptable.

D. Maintenance Data: Maintenance instructions, including precautions for avoiding staining after application.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: Acceptable to the manufacturer.

B. Regulatory Requirements: In accordance with Section [] [_____].

1.5 DELIVERY, STORAGE & HANDLING

A. General: Comply with Division 01 Product Requirements section.

B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

C. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

D. Handling: Protect materials from dirt, corrosion, oil, grease and other contaminants.

PART 2 PRODUCTS

2.1 MATERIAL

A. Manufacturer:

SpecChem LLC.

Contact:

1. 1511 Baltimore Ave, Ste 600, Kansas City, MO, 64108;
2. Telephone: (816) 968 - 5600;
3. Fax: (816) 561-4029;
4. Email: techassist@specchemllc.com;
5. Website: www.specchemllc.com

B. Densifier Hardener: A transparent, chemically reactive, water-based treatment that penetrates into the concrete surface, that fills in the natural pores and voids in the concrete surface.

1. LithSeal SC by SpecChem

C. Modified Oleophobic Penetrating Concrete Protectant: A clear, penetrating, breathable protectant, designed for use on interior and exterior concrete, to resist oil, water, food stains, and other liquid contaminants.

1. All Shield WB by SpecChem

2.2 PRODUCT SUBSTITUTIONS

A. Substitutions: Substitutions in accordance with Section [] - Product Substitution Procedures]
[No substitutions permitted] [_____].

PART 3 EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

A. Compliance: Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions and product carton instructions for installation.

3.2 EXAMINATION

A. Do not begin installation until substrates have been properly prepared and are suitable for application of product.

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

3.3 PREPARATION

A. Clean surfaces thoroughly prior to installation.

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

C. Do not use frozen material. Thaw and agitate prior to use.

D. If construction equipment must be used for application, diaper all components that might drip oil, hydraulic fluid or other liquids.

3.4 INSTALLATION

A. New Concrete: Apply densifier hardener to new concrete as soon as the concrete is firm enough to work on after troweling; with colored concrete, wait a minimum of 30 days before application.

1. After final finishing apply LITHSEAL SC with a quality low pressure sprayer with a fan tip. Uniformly spread the LithSeal SC with a soft broom or microfiber applicator to thoroughly coat the concrete eliminating any puddles or excess. Apply enough material to keep the surface wet for 15-20 minutes. Apply additional LITHSEAL SC to porous areas that dry quickly.

2. Any excess LithSeal SC that dries on the surface will appear as a dry powder residue and can be removed with a stiff broom, power sweeper, or floor scrubbing machine. A compatible ASTM C309 curing compound such as SpecChem E-Cure may be applied to finalize the curing process.

3. After the concrete has thoroughly cured, a floor scrubber equipped with a nylo-grit or similar abrasive cleaning pad will remove any residual construction debris, curing compound and further enhance the LithSeal SC surface shine.

Existing Concrete:

Apply densifier hardener only to clean, bare concrete.

1. Confirm removal of all surface contaminants. For best results clean the surface with a 60-100 grit sanding screen or diamond abrasive pad. Remove any dust and residue with a thorough water rinse and scrubber. Water rinse and squeegee surface dry.

2. Apply LithSeal SC with a quality low pressure sprayer. In a single saturating coat. Uniformly spread the LithSeal SC with a soft broom or microfiber applicator to thoroughly coat the concrete eliminating any puddles or excess.
3. Apply enough material to keep the surface wet for 15-20 minutes. Apply additional LithSeal SC to porous areas that dry quickly. Let treated areas dry.
4. Remove any dried powdery residue with a stiff broom or floor scrubbing machine.

Stain Preventing Guard

1. Apply All Shield WB with a quality airless sprayer to dry surface.
2. Spread All Shield WB evenly over concrete slab using a microfiber applicator pad.
3. Avoid puddling
4. Remove any excess using a squeegee
5. Allow to dry

3.5 PROTECTION

A. Protect installed floors for at least 3 months until chemical reaction process is complete.

1. Do not allow traffic on floors for 3 hours after application.
2. Do not allow parking of vehicles on concrete slab.
3. If vehicles must be temporarily parked on slab, place drop cloths under vehicles during entire time parked.
4. Do not allow pipe cutting using pipe cutting machinery on concrete slab.
5. Do not allow temporary placement and storage of steel members on concrete slabs.
6. Clean up spills immediately and spot-treat stains with degreaser or oil emulsifier.
7. Clean floor regularly in accordance with manufacturer's recommendations.

END OF SECTION