

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. SpecHard 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 the final troweling and bleeding, saturate the concrete surface with a base coat of SpecHard at approximately 200 ft² per gallon.

2. Optimum penetration can be achieved by applying SpecHard 1-2 hours after final finishing (usually immediately after control joints have been cut).

3. Broom or mop the SpecHard into the slab, reapplying SpecHard to areas that absorb the sealer. Keep the slab saturated with SpecHard for 30-45 minutes, working it into the concrete by brooming. Apply a light water spray to the treated area to finalize penetration and dissolve any remaining SpecHard.

4. After the saturation period, thoroughly rinse and then squeegee or brush off excess SpecHard until dry.

5. Although not compliant with ASTM C-309-91 as a membrane forming curing compound, SpecHard can be used as a curing compound and sealer by following these procedures.

6. When curing conditions are severe (wind, sun, etc.), the use of SpecHard and an ASTM C-309-91 curing compound in conjunction with the SpecHard will provide concrete flatwork with

greater durability and abrasion resistance. Contact SpecChem for specific application procedures.

B. Existing Concrete:

Apply densifier hardener only to clean, bare concrete.

1. Surface must be clean and sound. Remove all dirt, grease, curing compounds or other foreign matter with SpecChem Citrus Cleaner. Completely rinse any residue away and allow to dry.
2. Surface must be completely dry to allow for penetration of SpecHard. Application: Spray, squeegee or broom apply based on concrete porosity. For best results, SpecHard should be applied and scrubbed using mechanical scrubbers. Immediately follow application by light brooming to assure penetration and to avoid ponding.
3. Keep surface saturated with SpecHard for 20-30 minutes. As the surface absorbs the SpecHard, apply a light water spray to enhance penetration and to keep the SpecHard in solution from drying on the surface. Squeegee away excess and allow to dry.
4. Caution: Should white crystals develop, it is a sign that the slab will not absorb any more SpecHard and that the surface has started to dry. Immediately flush with water, brush with a stiff bristle broom and squeegee any surface water away.
5. Allow to dry.
6. SpecHard will develop a low gloss satin finish with use. If desired, a floor buffer can bring out the shine immediately on a well finished, hard troweled floor.
7. Repeat procedure to porous areas to ensure a uniform finish

C. 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