



Technical Application Specification: TAS - 1120

Crystalene Silicate

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Purpose and Scope of this Specification:

This specification shall act as the Florinc Polytech Inc. Manufacturers Standard Application Specification of Installation Procedures for Florinc Polytech Crystal Silicate. These application procedures for Florinc Polytech Crystalene Silicate are intended solely for applications over previously prepared, structurally sound concrete surfaces (for any other surfaces: Consult Florinc Polytech Inc.), by professionally trained and qualified contractors with full knowledge of industry standards and practices. Florinc Polytech makes no claim to contractor's qualification; however annual training schools are available for contractors seeking "factory trained" status for warranty purposes.

Product Description:

Florinc Polytech Crystalene Silicate is a reactive chemical concrete densifier which increases the density of concrete to create superior physical properties such as decreased permeability, increased hardness, and overall increased durability.

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Description and Packaging & Coverage:

<u>Item #</u>	<u>Standard Application:</u>	<u>Coverage:</u>
3510-00000	Crystalene Silicate 55 Gallon Drum	200 Square Feet per gallon
3512-00000	Crystalene Silicate 5 Gallon Pail	

NOTE: Varying job site conditions such as porosity and texture of the surface, may effect actual material consumption. The above table is designed only as a guide in determining actual materials required. Mock up samples and/or job site mock-ups are highly recommended.

NOTE: Coverage will vary widely depending on the porosity and texture of the surface, additional coats may be required.

Test Sections and Mock ups:

Densifying can be an expression of individual talents and techniques. Experimentation or experience with application procedures are highly recommended prior to tackling a project with this product. The Floric Polytech Crystalene Silicate can slightly change the color of the surface. It is recommended that samples and mock-ups be used. Representative test sections must be produced on each concrete surface or topping to be stained and sealed for the Owner's approval in writing.

1) STEP ONE: SURFACE PREPARATION AND SURFACE EVALUATION

Surface should be clean and free of any contaminants that will impede the penetration and reaction of the sealer. Contaminants such as: sealers, bond breakers, paint, oils curing compounds, etc, will inhibit the Crystalene Silicate from penetrating and bonding with the concrete. Using equipment and procedures described in the following section, thoroughly clean surface. After cleaning, rinse the surface until the rinse water is completely clean and mask off all adjoining walls and surfaces. **Note:** You can test for porosity, by pouring a small amount of water onto the clean, dry surface. If the water soaks into the slab, then the surface should be ready for densifier application.

Interior: Use a heavy-duty rotary floor machine that operates at approximately 175 rpm and is equipped with a brush or with a pad-driver. Use a suitable commercial detergent, bristled brush or janitorial pad on standard concrete, however care must be taken when cleaning toppings not to scratch or scare the surface with too heavy of an aggressive brush or pad, test a small obscure area first prior to general cleaning. Vacuum up all water, and allow to dry thoroughly, prior to Crystalene Silicate application.

Exterior: Use a pressure washer or steam cleaner, equipped with a fan tip that has a minimum pressure capability of 2000psi (14 Mpa). Care should be taken not to over expose areas of surface, leaving wand patterns in the finished substrate.

2) STEP TWO: CRYSTALENE SILICATE APPLICATION

Equipment:

In addition to the standard professional tools necessary to complete any professional sealing application, the Floric Polytech Crystalene Silicate application will require the following tools and equipment: High Volume Low Pressure Sprayers, and brooms for applying material.

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Protection:

Care must be taken to protect surrounding areas, mask with tape and plastic or use laminate spray shields. Do not use porous masking, paper or cardboard materials. **Note:** Protect walls and surrounding surfaces not to receive sealer. Do not allow Crystalene Silicate to come in contact with wood, metal or any surfaces not intended to be sealed. If Crystalene Silicate does come in contact with any surface for which it is intended, immediately wipe off with a rag and clean water.

Mixing:

Crystalene Silicate is a single component material.

Crystalene Silicate Application:

Crystalene Silicate can be applied with a low pressure sprayer, or it may be poured directly onto surface and spread with a soft bristled broom. Completely saturate the surface with the Crystalene Silicate. Once surface is completely saturated, agitate the Crystalene Silicate material using soft bristled brooms. **Note:** Do not allow any dry spots. Pull excess Crystalene Silicate material or apply additional material to dry areas.

After approximately 15 minutes mist the surface with water to re-emulsify the Crystalene Silicate. Again agitate the material with brooms.

After another 15-30 minutes thoroughly wash the surface with water. Use bristle brooms to loosen excess material from the surface.

Squeegee off the water, to leave the surface dry. Make sure that all excess Crystalene Silicate material has been removed during the washing process. **Note:** If necessary, repeat washing process until all excess Crystalene Silicate material is removed. When you are done the surface should appear like bare concrete with nothing on it.

Coverage:

200 square feet per gallon.

3) STEP THREE: CARE & MAINTENANCE:

Surface may be cleaned using clean water and a non-caustic, biodegradable detergent cleaner with a damp mop application. Maintain interior applications of Floric Polytech Crystalene Silicate via occasional waxing with Floric Polytech Synthetic Floor Finish (SW-117 or SW120).

Densifier Curing, Protection and Cleaning:

Allow Floric Polytech densifier to fully cure, and inspect all surfaces prior to opening for traffic. Depending on the specific sealer used cure times will vary, refer to the specific technical data sheet for more information on individual cure times of sealers. Generally 24 hours minimum cure time is required for light foot traffic and 72 hours for Scissor lifts and heavy rolling loads. It is recommended that protecting board be used during subsequent construction phases. Note: Protection should be applied 72 hours or more, after the final coat has been applied.

ENVIRONMENTAL CONDITIONS:

1. For safety reasons and the drying/curing process, adequate ventilation is required during the entire installation process of both to evacuate any fumes, and to reduce build up of moisture for the Crystalene Silicate.
2. A five percent variance between wet bulb reading and relative humidity is required prior to the application.

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GENERAL CAUTIONS:

1. Read and follow Floric Polytech technical application specification TAS – 2002
2. Always obtain, read and observe Manufacturer's safety data Sheets (MSDS) before handling resinous materials. Become familiar with the products on paper before you open the container.
3. Read and observe precautionary statements on product labels.
4. Keep containers tightly closed.
5. Keep out of reach of children.
6. For proper workability it is important that the Floric Polytech materials be stored and mixed at a temperature of 55°F - 80°F (18°C - 26°C).
7. All concrete curing agents, sealers and hardeners must be removed from the concrete prior to application of the bond coat.
8. Good ventilation must be provided during application, particularly in confined spaces.
9. To avoid a FIRE HAZARDS. Do Not Use any cleaning solvents such as (Acetone, Xylene, lacquer thinner, toluene or MEK etc) in conjunction with any powered tools or equipment i.e. (grinders, floor buffers, sanders, etc) when clean floors or removing existing coatings. Avoid working in areas with exposure to open flames such as heater, oven with pilot lights, welding or cutting equipment and any other such source of open flame. Please think and act safely when working with any flammable materials.

NOTES:

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