



**SCOFIELD  
SYSTEMS**

TECH-DATA BULLETIN TD-LSR05.02  
Rev. 05.30.2018



**Your Partner in Decorative Concrete.**

## LITHOCAST™ Surface Retarder 05

LITHOCAST Surface Retarder 05 - Coarse Sand Texture

### 1. Description:

LITHOCAST™ Surface Retarder 05 is a water-based, biodegradable, low odor top surface retarder. Applied to the surface of fresh concrete, LITHOCAST™ Surface Retarder 05 chemically delays the set of the surface mortar while allowing the underlying concrete to harden normally. This allows time for washing the surface, producing exposed aggregate flatwork, with subtle and varying reveals of texture and color.

Apply LITHOCAST™ Surface Retarder 05 on gray concrete or concrete colored with CHROMIX® Admixtures for Color-Conditioned® Concrete. Use on poured-in-place flatwork: curbs, sidewalks, driveways, patios, pool decks, tilt-up and precast panels, and most horizontal concrete installations. LITHOCAST™ Surface Retarder 05 produces a coarse sand texture. The fully cured surface is not only attractive, it is also slip resistant. VOC compliant (<10 g/L) and solvent free, LITHOCAST™ Surface Retarder 05 is safer and cleaner to use compared to acid etching or mechanical blasting. LITHOCAST™ Surface Retarder 05 is light blue in color to facilitate an even application. Clean tools and equipment with soap and water.

### 2. Limitations:

Apply LITHOCAST™ Surface Retarder 05 between 55°F to 90°F (13°C to 32°C). Most concrete mix designs stop curing below 50°F. Do not allow the material to freeze during storage or after applied to the concrete. At higher temperatures, low humidity, or windy conditions, the material may prematurely dry and lose its effectiveness unless it is reapplied. Do not apply to concrete that contains cold weather accelerators or hot weather retarders without prior testing. Do not apply to frozen surfaces, nor allow the material to freeze, before washing to expose the aggregate. Do not use as a finishing aid. The depth of etch will vary with different mix designs, method and timing of finishing, application consistency, temperature and removal method. Hard-troweled surfaces will reduce the effectiveness of LITHOCAST™ Surface Retarder 05. Do not apply to vertical concrete or to form work. Do not apply to shake-on color hardeners, particularly if the surface has a hardtroweled finish, without prior testing and approval. The very dense surfaces typically produced by shake-on color hardener may inhibit the depth of etch compared to a plain concrete surface finished in the same manner.

### 3. Packaging:

LITHOCAST™ Surface Retarder 05 is available in 1 gal. (3.8 L) and 5 gal. (19 L) pails. Pails should be stored in a cool, dry place when not in use. Do not allow material to freeze. Do not reuse the empty container.

### 4. Shelf Life:

Shelf life in original, unopened containers is 2 years from the date of purchase.

### 5. Coverage:

LITHOCAST™ Surface Retarder 05 will cover approximately 175-300 sq. ft./gal. (4.3-7.4 m<sup>2</sup>/L). Apply at full strength. Do not dilute. Coverage will vary with surface texture and application method.

### 6. Application Tools:

Apply LITHOCAST™ Surface Retarder 05 with a pump-up sprayer, brush, or roller. Spraying is the most effective and consistent method of application. Use clean equipment free from water or solvent residues. Clean application tools with clean water immediately after use.

### 7. Installation:

Proceed with application after approval of the test area. Utilize the same concrete mix design throughout the installation. Finish the concrete uniformly level. High or low areas may retain or reject the material, possibly creating inconsistencies in the exposed finish. Concrete with a float or broom finish allows LITHOCAST™ Surface Retarder 05 to better penetrate the surface compared to hard-troweled concrete. Float open surfaces treated with an evaporation retarder or finishing aid before applying LITHOCAST™ Surface Retarder 05. Do not apply the material until bleed water has dissipated. Do not apply curing and sealing compounds before applying LITHOCAST™ Surface Retarder 05.

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### 8. Existing Concrete:

The cement residue produced when removing LITHOCAST™ Surface Retarder 05 will bond to hardened concrete. Protect existing concrete by covering it with plastic sheeting or by spraying it with LITHOCAST™ Surface Retarder 05. Allow LITHOCAST™ Surface Retarder 05 to dry completely before proceeding with the new concrete installation. The dried film of LITHOCAST™ Surface Retarder 05 will prevent the etched residue from penetrating or bonding to the concrete. Protect all adjacent surfaces from discoloration or damage from the chemical etching process.

**9. Application:** Facilitate mixing by storing the material at moderate temperatures before use. Mix the material with a powered drill, do not hand mix. Mix at low speeds until the material is a uniform light blue color. Mixing time for a 5 gal. pail is 3-5 minutes. Apply an even coating of LITHOCAST™ Surface Retarder 05 to the concrete's surface. When spraying, utilize the lowest pressure possible to create a fan pattern. Apply the material evenly, to achieve a masking, consistent blue color over the concrete. If an insufficient amount of top surface retarder is applied, premature drying may occur, which could effect the exposure results. Heat, wind, and low humidity may also contribute to excessive drying. Cover the concrete surface completely with LITHOCAST™ Surface Retarder 05. For consistent exposure results, spray all concrete surfaces at the same time after completing concrete finishing.

### 10. Dwell Time:

Do not work the surface with a float or trowel after applying LITHOCAST™ Surface Retarder 05. The material will dry in 1-2 hours, after which time it is resistant to light rain. Prior to drying, protect LITHOCAST™ Surface Retarder 05 from rain by temporarily covering it with plastic and then removing as soon the weather allows. Divert downspouts or other sources of substantial water exposure from flowing directly on the concrete after applying LITHOCAST™ Surface Retarder 05. Do not apply curing compounds over the surface retarder.

### 11. Removal and Exposure:

Expose the aggregate by washing it within 6-24 hours after application, depending upon the temperature and humidity, and as determined by the approved mock-up panel. Use a garden hose and a new, clean broom or pressure washer to work the surface. Work a small area. If the depth of reveal is too deep, stop washing and allow the concrete to cure and harden further. Some concrete mix designs installed during elevated temperatures may require exposure to start sooner than 12 hours. Cold temperatures delay exposure. Achieve uniform exposure by washing the surface at the same time after the initial application of LITHOCAST™ Surface Retarder 05 to the concrete.

### 12. Curing and Sealing:

Allow the concrete to dry (no visible moisture or dampness) for 12-24 hours before applying a liquid curing compound. Use SCOFIELD® CureSeal™ 350 or SCOFIELD® CureSeal™ 700 for exterior applications or interiors when a strong odor is not a concern. SCOFIELD® CureSeal-W™ is a waterbased system useful for interior and exterior applications. Multiple light coats are necessary over the roughened etched surface. Do not allow the material to puddle on the surface or in the joints. To protect the exposed aggregate finish, reseal the concrete with the same product originally used to cure.

### 13. Quality Control:

Create a job site sample at least 21 days before installation for approval. Utilize all materials, tools, and techniques from the actual job in the job site sample. When curing and sealing the surface, verify adequate wet and dry slip resistance of the sealed surface. Verify maintenance requirements.

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**KEEP CONTAINER TIGHTLY CLOSED • KEEP OUT OF REACH OF CHILDREN • NOT FOR INTERNAL CONSUMPTION • FOR INDUSTRIAL USE ONLY • FOR PROFESSIONAL USE ONLY**

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