

PRODUCT DATA SHEET

SCOFIELD® Formula One™ Lithium Densifier MP

A deep penetrating lithium densifier for improving concrete surface hardness, ease of polishing, and stain resistance.

PRODUCT DESCRIPTION

SCOFIELD® Formula One™ Lithium Densifier MP is a very low VOC concrete densifier formulated to deeply penetrate and quickly react with concrete components. It will harden, densify, and increase the abrasion resistance of cementitious surfaces. Based on a blend of lithium silicate and surface tension modifiers, it deeply penetrates into concrete pores easier than competitive products. It reacts with cement, pozzolans, and most aggregates to fill microvoids and allow concrete to polish faster while improving water and stain resistance. It is not a coating, and will not crack, peel, or delaminate from surfaces. It can be used full strength or diluted to meet specific project needs.

USES

Use as an effective dye-lock when polishing concrete, or to harden, densify, or dustproof the cementitious surfaces of:

- Interior or exterior floors
- Stairs and walkways
- Terrazzo
- Ground and polished floors
- Countertops
- Below grade basements

PRODUCT INFORMATION

Chemical Base	Lithium Silicate with a penetrating aid, 12% solids
Packaging	5-gallon (18.9 L) pails and 55-gallon (208 L) drums.

CHARACTERISTICS / ADVANTAGES

- Low odor, non-yellowing water based formulation.
- Breathable non-film forming surface treatment.
- Bonds directly to cement and aggregate silicates.
- Effectively locks in concrete dyes.
- Hardens and improves stain and scratch resistance.
- Deeply penetrates, and quickly reacts.
- Shortens concrete polishing times.
- UV light stable and weather resistant.
- Combats deteriorating surface ASR and frosting.
- Resists efflorescence.
- Cures to a non-toxic, non-flammable surface.
- Apply by brush, roller, spray or mop.

APPROVALS / STANDARDS

SCOFIELD® Formula One™ Lithium Densifier MP can be used as part of a low VOC concrete polishing system to earn LEED® credits for Indoor Environmental Quality, EQ Credit 4.2: Low-Emitting Materials: Paints & Coatings.

SCOFIELD® Formula One™ Lithium Densifier MP can be used with Scofield® Formula One™ Guard-W to make floors that exceed the Underwriters Laboratories Safety Standard UL 410, "Slip Resistance of Floor Surface Materials."

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Appearance / Color	Clear colorless liquid.
Shelf Life	2 years from the date of manufacture. 1 month after opening.
Storage Conditions	Store in original containers at 40°F to 120°F (4°C - 49°C). DO NOT FREEZE!

APPLICATION INSTRUCTIONS

If using spray equipment, always wear protective respirator. Mask adjacent areas to protect property from splashes and overspray. Dried material will be difficult to remove. Remove overspray immediately with soap and water.

SCOFIELD® Formula One™ Lithium Densifier MP can be used full strength or diluted to meet the needs of the specific project. Dilution rate, surface age, hardness, porosity, substrate moisture content, and purpose will determine the optimum combination of dilution and coverage rate. First time applicators are encouraged to use the product diluted 1:1 with water.

Although successful application can be performed with topical applications, the use of brooms, sponges, or mops to work material into substrate pores have proven to produce superior results.

For all uses and applications, spread or scrub puddles of excess material into surfaces before it is allowed to dry. Puddled material allowed to dry can form unsightly salts that are difficult to remove. All concrete must be at least 7 days old so that initial concrete cure is complete. A 28 day cure so that the slab is fully dry and absorbent is preferred.

Coverage

Coverage will depend upon method of application, surface porosity, age, moisture, absorption characteristics and the texture of the concrete. Coverage on flat finished concrete is typically 200–400 ft²/gal (4.9–9.8 m²/L). Old or soft concrete will require more material. Slabs ground to expose hard non absorptive aggregates will take less material.

Dilution Rates

Dilution rate will depend upon porosity, age and condition of the concrete.

For soft or aged concrete: Use full strength.

Hard, steel troweled, recently ground concrete in good condition: Dilute 1:1 with potable water.

Equipment

Apply SCOFIELD® Formula One™ Lithium Densifier MP by brush, roller, sponge, mop, or pump-spray application. Use rotary floor scrubbers equipped with brushes or pads to assist with large jobs. Always wear protective clothing and equipment proper for the method of application.

Spray applicator Guidelines:

Pump Garden Sprayer: Use conical tip and apply with circular motion.

SUBSTRATE PREPARATION

Concrete must be at least 7 days, and preferably 28 days old. Surfaces must be dry and clean of all prior sealers, curing compounds, oils, or other foreign materials that might prevent penetration. If used as a first stage densifier or dye-lock for concrete polish work, grind to the desired aggregate exposure ending with 80 to 200 grit tools. Use brooms or vacuums to remove all grinding dusts, loose concrete laitance, and powders, or the densifier may permanently adhere them to the surface.

Mixing: If diluted, mix until uniform.

Jobsite Test Sections

Verify and approve suitability and appearance by making jobsite test sections prior to general application. Each individual concrete color, finishing technique, densifier, and sealer combination should be verified. Test sections must be of adequate size to be representative and be produced by the same workers who will apply product to the larger job. Test completed systems for wet and dry slip resistance to ensure they are safe. Do not proceed with products, techniques, or finishing systems that do not meet required safety specifications or site owner approval.

Application

Mask all areas not to be coated to safeguard against splashes, overspray, and runoff from application. Wear all required safety equipment. Take care not to allow tape adhesive to interfere with surfaces to be treated. Surface wet with material will be slippery until dry.

Distribute product with a pump garden sprayer to fully saturate the surface. Surfaces should remain wet 5 to 10 minutes. Work material into the surface with a broom, mop, or sponge to ensure product penetrates into substrate pores and microcracks. Take care not to create lap marks as they cannot be removed once the product has dried. If too much material has been applied, and it is puddled after 30 minutes, dilution and removal with a wet vacuum is recommended.

When the first application is dry to touch, a second coat can be applied to maximize densification properties. If used as a polishing aid, wet polishing can begin when dry to touch.

Dry times will depend upon the selected coverage rate,

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penetration into the substrate, and weather conditions. At 70°F (21°C) and 50 % relative humidity with an application rate of 400 sq. ft. per gallon (9.8 m²/L), surfaces should be dry and walkable and ready for the next stage of polishing in 1 hour.

If surfaces will not be polished further, or they will be sealed with a coating, wash surfaces at this stage with fresh water to remove excess densifier. When completely dry, surfaces can be returned to service. If sealing, wait 24 hours to allow the densifier to cure.

Cleaning of Equipment

Clean equipment with warm water and detergent immediately after application.

AVAILABILITY/WARRANTY

SCOFIELD® Formula One™ Lithium Densifier MP is marketed internationally through strategically located dealers, and representatives. Scofield offers a complete line of engineered systems for coloring, texturing, and improving performance of architectural concrete. These include coloring admixtures, color hardeners, colored cementitious toppings, stains, curing compounds, sealers, coatings, repair products and texturing tools. Visit the Scofield website at www.scofield.com for further information.

LIMITATIONS

SCOFIELD® Formula One™ Lithium Densifier MP is not a membrane forming curing compound and does not conform to ASTM C 309 requirements. It is not a substitute for proper curing procedures. It is not designed to provide water or oil resistance to the concrete surface without further treatment.

If residual SCOFIELD® Formula One™ Lithium Densifier MP is allowed to dry on the concrete surface it will leave unsightly deposits that are difficult to remove. The appearance of residue on the concrete surface after completion indicates that the excess SCOFIELD® Formula One™ Lithium Densifier MP was not removed. This residue can only be removed by mechanical means.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

Sika Corporation

OTHER RESTRICTIONS

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ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887. VOC = 2.59 g/L

LEGAL DISCLAIMER

- 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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