



SCOFIELD® Refresh™ Exterior Stain

A penetrating, solvent-borne, two-component colored waterproofing treatment for improving and renewing the color uniformity and intensity of porous, exterior colored concrete surfaces and concrete pavers or to add a measure of color to uncolored concrete.

TECH-DATA BULLETIN B-644.02

1 Product Description

SCOFIELD® Refresh™ Exterior Stain improves the appearance of existing, unsealed exterior colored or uncolored concrete surfaces in need of refurbishment or renovation. It adds a measured amount of color to the concrete without producing a paint-like appearance. Since SCOFIELD Refresh Exterior Stain penetrates and reacts with the concrete and no film is formed, Refresh colors become part of the surface, producing a luster that will approximate the sheen of newly placed concrete. SCOFIELD Refresh Exterior Stain is formulated for easy installation on horizontal concrete surfaces using hand-pump sprayers or rollers.

SCOFIELD Refresh Exterior Stain resists fading due to exposure to sunlight. It is a low-solids product, with a calculated Volatile Organic Compound (VOC) content of less than 120 grams per liter (1.0 lb/gal). SCOFIELD Refresh Exterior Stain meets all known air quality requirements and as such is legal for sale and use in all areas of the country as of November 1, 2009.

2 Coverage

SCOFIELD Refresh Exterior Stain must be applied full strength without thinning. Thinning or reducing SCOFIELD Refresh Exterior Stain with a nonexempt solvent is unlawful and will void the performance warranty. Coverage will vary depending on the porosity and texture of the surface. Typically an application rate of 100–300 square feet per gallon (2.5–7.4 m²/L) will provide the necessary coverage.

3 Limitations

SCOFIELD Refresh Exterior Stain must be applied at temperatures between 40° F (4° C) and 95° F (35° C). Previously applied curing membranes or sealers must be removed prior to installing SCOFIELD Refresh Exterior Stain. Residual coatings may produce blemishes or other surface imperfections.

SCOFIELD Refresh Exterior Stain should not be used on asphalt or in areas subject to water submersion, continuous liquid contact, or significant chemical exposure. It is intended for use above grade, in areas not subject to hydrostatic pressure.

SCOFIELD Refresh Exterior Stain will not penetrate wet surfaces or frozen substrates. All surfaces to be treated must be dry and frost free. Do not apply SCOFIELD Refresh Exterior Stain if rain is expected within 24 hours after installation.

The two components of SCOFIELD Refresh Exterior Stain must be thoroughly mixed together prior to use and frequent remixing must be performed during use to ensure uniform color distribution.

SCOFIELD Refresh Exterior Stain will require periodic maintenance and reapplication due to abrasion or chemical attack. Surfaces should be cleaned regularly with a neutral cleaner to minimize possible staining and damage to the treatment.

Since SCOFIELD Refresh Exterior Stain is a penetrating treatment and no film is formed, dirt and solid soils can be ground into porous surfaces where it is used. Removal of these ground-in soils may require washing with scrubbing or pressure washing equipment.

DANGER!

SCOFIELD Refresh Exterior Stain contains acetone which is extremely volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point.

WARNING!

SCOFIELD Refresh Exterior Stain must only be used on cured horizontal concrete surfaces that are adequately textured for slip resistance. The surface must be porous and not sealed, coated, or covered with materials that will impede penetration. SCOFIELD Refresh Exterior Stain must not be applied by airless sprayer or any other method that generates a fine mist.

TEST SECTION

Prior to general application, a representative jobsite test section must be produced to verify and approve suitability, proper surface preparation methods, penetration, safety, performance, wet and dry slip resistance, application techniques, and coverage.

4 Colors

SCOFIELD Refresh Exterior Stain is available in colors to approximate all colors depicted on Scofield's Color Chart A-312 CHROMIX® Admixtures for Color-Conditioned® Concrete. It is also available in Black and in A-11 Concrete Gray that approximates the color of uncolored concrete made with medium-gray cement. With sufficient prior notification, custom colors can be manufactured per quotation with a minimum order of 50 gallons (189 L). Contact your Scofield representative for pricing and lead times.

5 Packaging

SCOFIELD Refresh Exterior Stain base material (Part B) is available in 4-gallon (15.1 L) pails and 1-gallon (3.8 L) cans. SCOFIELD Refresh Exterior Stain tint concentrate (Part A) is sold separately in 1-gallon (3.8 L) and 1-quart (0.95 L) cans.

6 Textures and Slip Resistance

Adequate precautions must be taken to ensure that the treated surfaces are not slippery. Scofield laboratory tests showed no significant differences in wet or dry slip resistance values between concrete samples treated with SCOFIELD Refresh Exterior Stain and similar, untreated samples.

For safety considerations, a representative jobsite test section must be prepared and treated prior to general application and the entire surface tested after completion to verify and approve the adequacy of wet and dry slip resistance.



7 Storage and Shelf Life

When stored in the original unopened containers and protected from extreme heat, the shelf life of SCOFIELD Refresh Exterior Stain Parts A and B is at least 1 year from the date of purchase. Inventory must be rotated to maintain product that is within shelf life limits.

SCOFIELD Refresh Exterior Stain will not freeze and can be stored outside in cold weather. After exposure to freezing temperatures, SCOFIELD Refresh Exterior Stain must be allowed to warm up gradually to approximately 40° F (4° C) prior to use.

After mixing, SCOFIELD Refresh Exterior Stain Parts A and B must be tightly resealed for storage and must be used within 30 days.

8 Cautions

DANGER!

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPORS HARMFUL. VAPORS MAY CAUSE FLASH FIRE. HARMFUL OR FATAL IF SWALLOWED. KEEP OUT OF THE REACH OF CHILDREN. Contains Acetone, Aromatic Hydrocarbon, Aromatic Petroleum Distillates, Trimethylbenzene. May affect the brain or nervous system causing dizziness, headache or nausea. Causes eye, skin, nose and throat irritation. Repeated exposure may cause skin dryness or cracking. If swallowed, may be aspirated and cause lung damage.

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. See MSDS for further information.

Keep away from heat, sparks, and flame. Use only with adequate ventilation. Do not breathe vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke in areas where this material is used.

INTERIOR USE

WARNING: Do not allow vapors from this product to penetrate into foodstuffs. Remove animals from quarters until all vapors have dissipated. Turn off all pilot lights. SCOFIELD Refresh is nontoxic in its cured state.

First Aid: Eyes—OBJECT IS TO FLUSH MATERIAL OUT IMMEDIATELY THEN GET MEDICAL ATTENTION. Flush IMMEDIATELY with lukewarm water while holding eyelids apart. Flushing within several seconds is essential to achieve maximum effectiveness. If physician is not immediately available, continue flushing with water. Ingestion—Do not induce vomiting. Vomiting will cause further damage to the throat. Give conscious victim 1 to 2 glasses of water. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water. Contact local poison control center. Immediately transport victim to an emergency facility. Never give anything by mouth if victim is losing consciousness, or is unconscious or convulsing. Skin—Wash thoroughly with soap and water. Remove soiled clothing and footwear and wash before reuse. If irritation occurs, get medical attention. Inhalation—If breathing becomes difficult, leave the area to obtain fresh air. If continued difficulty is experienced, get medical attention immediately. If symptoms persist or develop, get medical attention.

In Case of Fire: Use CO₂ or dry chemical extinguisher. Do not use water spray.

Wash thoroughly immediately after handling. Close container after each use. If spilled, eliminate all sources of ignition. In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations. Do not reuse empty container. Empty containers may contain hazardous product residues. Before using or handling, read the *Material Safety Data Sheet and Warranty*.

9 Equipment for Preparation and Application

When using equipment and materials during preparation and installation, suitable protective gear must be worn and government regulations, manufacturer's instructions, and all applicable safety requirements must be followed.

Use of a pressure washer or a walk-behind scrubbing machine will facilitate surface preparation. For mixing, a paint stick suitable for the container size must be used. For application use a pump sprayer made with solvent-resistant materials, such as an SP Systems SP10ACT or SP35ACT equipped with a gray fan tip (available from SP Systems, 800-457-3440). On spray applications a soft-bristled push broom will be required to work the Refresh material into the substrate surface until it dries. Alternatively, SCOFIELD Refresh Exterior Stain may be applied using a roller with the appropriate length nap; in most circumstances, a 3/4 inch nap will give the best results.

10 Preparation

Before applying SCOFIELD Refresh Exterior Stain to the concrete surface, completely remove all dirt, oil, previously applied curing compounds, coatings and other contaminants from the surface so that it is penetrable. Failure to do so will cause appearance defects and reduced durability.

All areas to be treated must be cleaned by pressure washing. Washed or wet areas must then be allowed to dry thoroughly before application of SCOFIELD Refresh Exterior Stain or moisture may be trapped in the surface of the concrete, interfering with penetration.

All concrete flatwork to be treated with SCOFIELD Refresh Exterior Stain must have a uniformly slip-resistant surface. Surfaces that are not slip resistant must be roughened by some mechanical method.

11 Mixing

SCOFIELD Refresh Exterior Stain is supplied as a two-component kit consisting of a coloring agent (Part A tint concentrate) and a base material (Part B base), packaged in separate containers. The entire contents of the Part A tint concentrate is added to the Part B base material.

Thoroughly mix Part A before adding to Part B. Empty the contents of the Part A container into Part B. The sides and bottom of the Part A container must be thoroughly scraped to remove all of the tint concentrate. Using a suitable paint stick, hand-stir the material until a streak-free color is reached. This will take approximately 3 minutes. **Caution: Do not use a power drill and paddle to mix the material.**

After combining the components, material from different lot numbers should be mixed together (boxed) to minimize the possibility of color variation.

Frequent remixing must be performed during use to ensure uniform color distribution.

12 Application

All surfaces must be properly prepared as described in section 10. *Preparation*. Application must be made at the coverage rate recommended in section 2. *Coverage* using the equipment described in section 9. *Equipment for Preparation and Application*.



SCOFIELD Refresh Exterior Stain should be applied on a calm day when concrete and air temperatures are between 40–95° F (4–35° C). The surface must be dry and not subject to moisture that may interfere with the treatment penetrating or drying properly. Application should not be made during rainy, foggy, or very humid weather when water condensation forms on the surface.

Using a solvent-resistant sprayer, apply the freshly mixed SCOFIELD Refresh Exterior Stain sparingly to the concrete surface until no more material is absorbed. Do not allow material to puddle. Control coverage to keep surface visibly wet with material while spraying but avoiding overapplication. Use a soft-bristled push broom to work material into the surface and continue working until the surface is dry.

Alternatively, apply the freshly mixed SCOFIELD Refresh Exterior Stain using an appropriate roller. Back roll at right angles while the material is still wet and roll until the surface is dry.

If any residue remains after treatment (more likely if two coats are applied), scrub and rinse with water to avoid tracking residual color to adjacent areas. If the treated concrete surface absorbs water and darkens during the scrubbing and rinsing process, the concrete's pores are not fully blocked and application of additional SCOFIELD Refresh Exterior Stain is recommended to achieve full water protection.

After application is finished, tools should be cleaned with acetone following the manufacturer's instructions and safety requirements and then flushed with water. For sprayers, pump the acetone through the spray equipment to remove any residue.

After the treated and washed surfaces are completely dry to the touch, the area is suitable for general use. All treated surfaces must be thoroughly inspected to verify and approve installation and safety, including wet and dry slip resistance, before the area is opened to traffic.

13 Maintenance Recoating

The color and water repellency of SCOFIELD Refresh Exterior Stain can be worn away over time and a maintenance re-treatment may be needed periodically.

14 Availability

SCOFIELD Refresh Exterior Stain is marketed nationwide and internationally, directly to the user through strategically located warehouses, dealers, and representatives. Contact Scofield for its nearest representative.

Scofield offers a complete line of engineered systems for coloring, texturing, and improving performance in architectural concrete. Scofield Systems address specialized requirements for interior, exterior and vertical uses with compatible systems of complementary products including 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.

15 Limited Warranty

Since no control is exercised over product use, L. M. Scofield Company (Scofield) represents and warrants only that its products are of consistent quality within manufacturing tolerances. NO OTHER ORAL OR WRITTEN REPRESENTATION OR STATEMENT OF ANY KIND, EXPRESS OR IMPLIED, NOW OR HEREAFTER MADE IS AUTHORIZED OR WARRANTED BY SCOFIELD, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Liability for breach of contract, negligence, or on any other legal basis is limited to the lesser of refund or replacement of defective materials. SCOFIELD WILL NOT BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING FOR DELAYS OR LOST PROFITS. Communication of this warranty and its limitations to end users is not the responsibility of Scofield, but should be communicated by those in direct contract with the end user. Any claim regarding product defect must be received in writing within one year from the date of manufacture. No claim will be considered without such written notice or after the specified time interval. The end user shall determine the suitability of the products for the intended use and assumes all risks and liability in connection therewith.

Suggested Short Form Specification for Treating or Re-Treating Concrete Flatwork

All concrete flatwork designated as being treated or re-treated in the plans and specifications shall be treated with SCOFIELD® Refresh™ Exterior Stain in _____ color(s), manufactured by L. M. Scofield Company, (800) 800-9900, Los Angeles, CA, (323) 720-3000, and Atlanta, GA, (770) 920-6000. SCOFIELD® Refresh™ Exterior Stain shall be applied full strength in accordance with Scofield's Tech-Data Bulletin B-644.



1 800 800 9900 or www.scofield.com

SCOFIELD PRODUCTS ARE INTENDED FOR PROFESSIONAL USE ONLY

L. M. Scofield Company customer service: 1 800 800 9900

Western Headquarters: 6533 Bandini Blvd., Los Angeles, CA 90040 voice: 323 720 3000 fax: 323 720 3030

Eastern Headquarters: 4155 Scofield Road, Douglasville, GA 30134 voice: 770 920 6000 fax: 770 920 6060

www.scofield.com