

SCOFIELD® Cureseal 100™

A solvent-borne, clear curing compound for freshly placed colored or uncolored concrete flatwork and a durable sealer for protecting horizontal or vertical quarry tile, brick, block, stone, exposed-aggregate, or cementitious surfaces.
Contains less than 100 g/L VOC.



BUILDING TRUST



TECH-DATA BULLETIN TD-1636.04 Rev. 6.1.2017

L. M. Scofield Company - A SIKA COMPANY

1. Product Description:

SCOFIELD® Cureseal 100™ was developed for curing and sealing freshly placed colored or uncolored concrete and sealing new or existing exterior concrete flatwork or SCOFIELD® Texturetop® toppings where a gloss finish is desired and local air quality regulations prohibit the use of products containing more than 100 grams per liter of volatile organic compounds (VOC). It is also effective when used as a sealer over antiqued, imprinted, chemically stained, or exposed-aggregate concrete surfaces and as a finish sealer over quarry tile, brick, block, or stone. SCOFIELD Cureseal 100 produces a clear finish that is resistant to blushing and will not yellow with age, providing significant protection against ultraviolet degradation of the substrate.

As a premium-quality concrete curing compound, SCOFIELD Cureseal 100 offers excellent curing properties and moisture retention. As a sealer, SCOFIELD Cureseal 100 helps protect against staining from incidental contact with materials such as automotive oil, grease, and food spills. It produces a low-maintenance film that improves resistance to abrasion, freeze-thaw cycles, deicing salts, weather, and many chemicals. It is helpful in preventing concrete dusting and spalling. Surfaces sealed and protected with SCOFIELD Cureseal 100 are easier to clean and maintain than unsealed concrete. It is used as a sealer on building walls, allowing stains from airborne pollutants such as soot and dirt to be washed away with water.

2. Coverage:

SCOFIELD Cureseal 100 must be applied full strength without thinning by long-nap roller or applicator. Thinning or reducing SCOFIELD Cureseal 100 with a nonexempt solvent is unlawful and will void the performance warranty. The recommended coverage rate per coat is 300–500 square feet per gallon (7–12 m²/L); this coverage rate may vary depending on the porosity and texture of the surface.

For freshly placed concrete, one coat of SCOFIELD Cureseal 100 Gloss is required for curing. An additional top-coat of SCOFIELD Cureseal 100 is applied over the initial cure coat 30 days after the concrete has been placed and cured.

For older concrete or over quarry tile, brick, block, stone, or SCOFIELD Texturetop, two coats of SCOFIELD Cureseal 100 are required.

3. Limitations:

As of the date of this bulletin, SCOFIELD Cureseal 100 can be lawfully used in all parts of the United States. As regulations in various jurisdictions are subject to change, the user is cautioned to check with local authorities for applicable regulatory requirements in any particular area.

SCOFIELD Cureseal 100 will not freeze and can be stored outside in cold weather. After exposure to freezing temperatures, SCOFIELD Cureseal 100 must be allowed to warm up to approximately 40° F (4° C). Do not use any external heat source to warm the highly flammable material.

SCOFIELD Cureseal 100 must only be used on concrete that is placed on a well-drained subgrade and is not subject to hydrostatic pressure. It is not intended for use as a waterproofing material on below-grade surfaces. Alkali or hard-water deposits may form on or under the sealer at edges, cracks, joints, depressions or other locations where

water collects or enters the concrete substrate. Potted plants or other damp objects may leave deposits, stains, or discolorations if allowed to remain on the sealed concrete for an extended period of time. SCOFIELD Cureseal 100, like all clear sealers, will accentuate any nonuniformity in concrete color, texture, or finish.

Due to greater retention of moisture in the slab, SCOFIELD Cureseal 100 should not be used to cure or seal concrete that contains reactive aggregates since the possibility of pop-outs will be increased.

WARNING!

SCOFIELD Cureseal 100 must only be used in thin coats on surfaces adequately textured for slip resistance. Unless the surface was previously sealed with SCOFIELD Cureseal 100, it must be porous to allow penetration. If applied improperly or too heavily, the surface may peel or become slippery, particularly on pool decks or other areas where water may remain on the surface.

TEST SECTION

Prior to general application, a representative jobsite test section must be produced including casting, finishing, curing, sealing, or finish-coating as applicable to verify and approve suitability, proper surface preparation methods, adhesion, safety, performance, wet and dry slip resistance, application techniques, and coverage.

SCOFIELD Cureseal 100 should not be used in areas subject to continuous water submersion or chemical exposure, concentrated abrasion and scratching, or metal-wheeled traffic. On areas subject to forklift traffic, the use of nonmarking tires is recommended to avoid unsightly black tire marks.

Most paints and adhesives are compatible when applied over SCOFIELD Cureseal 100, but testing is required with the particular materials in question to verify compatibility before their application.

SCOFIELD Cureseal 100 must be applied at temperatures above 40° F (4° C) and below 80° F (28° C). Application must not be made on surfaces previously treated with a water or stain repellent.

SCOFIELD Cureseal 100 is a premium-quality curing and sealing formulation and, like all such products, will require periodic maintenance and reapplication. Spills should be removed promptly and cleaned regularly to minimize possible staining and damage to the sealer.

SCOFIELD PRODUCTS ARE INTENDED FOR PROFESSIONAL USE ONLY.

4. Composition and Materials:

SCOFIELD Cureseal 100 is a blend of 100% methacrylate polymers and UV inhibitors in a fast drying solvent blend.

5. Applicable Standards:

SCOFIELD Cureseal 100 complies with ASTM C 309 type 1.

A.I.M. Category: Curing and Sealing Compound, maximum VOC 100 g/L (0.8 lb/gal).

A.I.M. Definition: SCOFIELD Cureseal 100 is a liquid membrane-forming compound marketed and sold solely for application to concrete surfaces to reduce the loss of water



during the hardening process and to seal old and new concrete, providing resistance against some alkalis, some acids, and provide adhesion promotion qualities.

■ 6. Sizes:

SCOFIELD Cureseal 100 is available from stock in 1-gallon (3.8 L) and 5-gallon (18.9 L) pails and by special order in 55-gallon (208 L) drums.

■ 7. Storage and Shelf Life:

When stored in the original unopened containers and protected from extreme heat, the shelf life of SCOFIELD Cureseal 100 is at least 2 years from the date of manufacture. Inventory must be rotated to maintain product that is within shelf life limits.

■ 8. Chemical Resistance and Staining:

Chemical resistance may vary depending on the condition of the concrete substrate, curing techniques, surface preparation, method of application, the length of time the chemical remains on the surface, and other factors. When chemical protection is required or resistance to staining is important, a representative test application must be made on the jobsite substrate to determine if the sealer has suitable resistance. After the test application of SCOFIELD Cureseal 100 has fully cured, a minimum of 14 days, the chemical in question should be applied and left on the surface for the maximum possible time it would remain under the expected conditions of service.

■ 9. Textures and Slip Resistance:

Only uniformly slip-resistant concrete surfaces, such as broomed, swirl or sponge floated, sandblasted, acid-etched, exposed-aggregate, most imprinted-concrete, or concrete topped with SCOFIELD Texturetop toppings, should be considered for application of SCOFIELD Cureseal 100. Textures that are not slip resistant must be roughened by some texturing method such as acid etching, sandblasting, or machine scarifying.

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

■ 10. Cautions:

DANGER!

DANGER! HIGHLY FLAMMABLE LIQUID & VAPOR. VAPORS HARMFUL. VAPORS MAY CAUSE FLASH FIRE. HARMFUL OR FATAL IF SWALLOWED. KEEP OUT OF THE REACH OF CHILDREN. CONTAINS ACETONE and PETROLEUM DISTILLATES. MAY AFFECT THE BRAIN OR CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE, OR NAUSEA. CAUSES EYE, SKIN, NOSE, AND THROAT IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. HARMFUL IF SWALLOWED. DO NOT TAKE INTERNALLY.

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. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent buildup of vapors by opening all windows and doors to achieve cross-ventilation. Use only with adequate ventilation. Do not breathe vapors or spray mists. 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. Wash thoroughly after handling. KEEP OUT OF THE REACH OF CHILDREN.

First Aid: Eyes—In case of eye contact, flush immediately with large amounts of water for at least 15 minutes and get medical attention immediately. Ingestion—If swallowed, do not induce vomiting. Give conscious victim 1 to 2 glasses of water and get medical attention immediately. Skin—Wash thoroughly with soap and water. Inhalation—If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical attention— immediately. If symptoms persist or develop, get medical attention.

Keep container closed when not in use. If spilled, eliminate all sources of ignition. Contain spilled material and remove with inert absorbent using non-sparking tools. Dispose of contaminated absorbent, container, and unused contents in accordance with all applicable regulations. Do not reuse empty container. Before using or handling, read the *Material Safety Data Sheet and Warranty*.

■ 11. 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, a rotary scrubbing machine, or a walk-behind scrubbing machine will facilitate surface preparation on cured concrete, quarry tile, brick, or block. A low pressure sprayer, airless sprayer, roller, or long nap applicator are required for applying SCOFIELD Cureseal 100.

WARNING!

SCOFIELD Cureseal 100 is highly flammable. Any electrical equipment used with SCOFIELD Cureseal 100 must be explosion proof or otherwise designed specifically for use with solvent-based products. Care must be taken to prevent sparks at electrical outlets or wherever solvent vapors may be present.



For preparation, the pressure washer must be equipped with a fan tip and have a minimum pressure capability of 2000 psi (14 MPa). Hot water capability may facilitate cleaning of existing concrete. Nonmarking hoses are helpful.

For preparation, the rotary scrubbing machine must be heavy duty and operate at approximately 175 rpm. It may be equipped with brushes or with a pad driver that securely holds pads in place. A stiff-bristled bassine or nylon scrub brush is recommended.

For application by roller, the roller must be long-napped with a recommended pile depth of 1 1/4 inch (32 mm), of professional quality, and a suitable size. An adequate supply of refill rollers should be available so they may be changed whenever necessary.

For application, the long-nap applicator must be of professional quality, of a suitable size, and in good condition to ensure even coverage.

■ 12. Preparation for Sealing:

During cleaning and stripping procedures, all surrounding areas should be closed to traffic, roped off, and protected. Testing should be performed to verify that the cleaning or stripping methods and materials will not damage the concrete.

To reduce hard-water and alkali deposits, sprinklers and fountains should be adjusted to avoid wetting of the surface. In hard-water areas, soft water should be considered for use in water features. Construction joints should be sealed with a high-quality joint sealant.

All washed or wet areas must be allowed to dry thoroughly before application of SCOFIELD Cureseal 100 or moisture may be trapped under the sealer, causing a white haze to develop.

Newly placed concrete cured with SCOFIELD Cureseal 100 should receive an additional seal coat of SCOFIELD Cureseal 100 30 days after the concrete has been placed and cured.

Immediately prior to applying the seal coat, the concrete must be thoroughly cleaned by sweeping or vacuuming. Significantly stained, mottled, or damaged sections should be stripped. Mottled areas may also require acid washing after stripping to remove alkali deposits. These may form under the cure coat when application is made to concrete that contained excessive water when placed or where there was an unusual subsurface moisture condition. Additional preparation methods are described below and in section 15. *Maintenance and Removal*.

The surface must be rinsed after cleaning until the rinse water is completely clean. After drying, the surface should be inspected closely, and additional general or spot cleaning and rinsing should be performed if necessary.

After the surface is completely dry, wear paths, scratches, scrapes, and other areas where the cure coat has been removed by wear or cleaning should be spot sealed using a fine-bristle brush or airless sprayer to apply and feather the sealer into the surrounding unmarred surface. All spot sealed or resealed sections should be allowed to dry thoroughly before application of the seal coat.

Existing concrete, quarry tile, brick, block, or stone must have a uniformly slip-resistant surface. Textures that are not slip resistant must be roughened by some texturing method as described in section 9. *Textures and Slip Resistance*. Concrete previously sealed with SCOFIELD Cureseal 100 should be prepared as described in section 15. *Maintenance and Removal*.

Before sealing concrete surfaces that have not been previously sealed with SCOFIELD Cureseal 100, all dirt, oil, grease, previously applied curing compounds, sealers, and coatings must be completely removed. Failure to remove all contaminants and coatings that impede the penetration of SCOFIELD Cureseal 100 into the concrete will cause appearance defects, adhesion loss or peeling, and reduced durability.

Concrete not previously cured or sealed with SCOFIELD Cureseal 100 must be cleaned completely so that the surface

is penetrable. An indication of whether the concrete is penetrable can be obtained by spotting the surface with water. The water should immediately darken the substrate and be readily absorbed. If the water beads and does not penetrate or only penetrates in some areas, additional surface preparation and testing must be performed.

The cleaning method to be used depends on the surface finish and the condition of the concrete. Detergents, paint removers, or other commercial cleaners should be considered and tested. Pressure washing or scrubbing with a rotary scrubbing machine is normally required. Any dirt or other material remaining will show through the clear sealer.

After cleaning, the surface must be rinsed to remove any remaining residue. Rinsing should continue until the rinse water is completely clean. Wet vacuums may be helpful to remove dirty water. After drying, the surface must be carefully inspected and retested for penetrability. Additional general or spot cleaning and rinsing should be performed if necessary. All washed or wet areas must be allowed to dry completely before application of SCOFIELD Cureseal 100.

Acid washing may be required when the above surface preparation does not yield adequate penetration or if there are excessive alkali deposits or surface discoloration. Acid washing may also be beneficial to clean and brighten exposed-aggregate finishes. Since acid washing may affect the appearance or uniformity of the color, a representative area should first be tested. After preparation as described above, the surface should be acid washed using a solution of one part muriatic acid (20° Baume or 31.4% hydrochloric acid) to 20 parts water. Proper protective gear as recommended by the acid supplier must be worn. The reacted residue must be scrubbed using a low-speed rotary machine equipped with a black pad and then thoroughly rinsed until the rinse water is clear and free of solids, a minimum of two times. After rinsing, neutralize the surface by washing with a solution of baking soda (sodium bicarbonate) and water, using 1 pound of baking soda per 5 gallons of water (454 g/19 L). Apply the solution until it stops fizzing. After neutralization, the surface must be rinsed thoroughly with clean water several times to remove soluble salts. Rinsing must continue until the rinse water is clean. Rinse water must be removed with a wet vacuum; rinse water left on the surface to evaporate may cause efflorescence. After rinsing is complete, a pH test must be performed using pH paper, litmus paper or a properly calibrated surface pH meter. A pH value of 7 or higher indicates that all acid has been neutralized. If the tested pH value is below 7 the neutralization step outlined above must be repeated until a pH value of 7 or more is obtained. After drying, the surface must be retested for penetrability as described above. Additional acid washing and rinsing must be performed if necessary. All washed or wet areas must be allowed to dry thoroughly before application of SCOFIELD Cureseal 100.

All applicable federal, state, and local safety, disposal, and other regulations, including OSHA, must be followed.

Particular care must be taken to completely remove any release agent that may have been applied. The presence of most release agents will adversely affect the physical properties of SCOFIELD Cureseal 100 and cause adhesion loss between the sealer and the concrete.

Exterior flatwork topped with SCOFIELD Texturetop must be sufficiently cured to walk on without damage prior to sealing, at least 16–24 hours after installation at 70° F (21° C) and 50% relative humidity. Dust, slurry residue, or other contaminants must be removed from the Texturetop surface by light pressure washing. All washed or wet areas must be allowed to dry completely before SCOFIELD Cureseal 100 is applied. Do not use aggressive removal methods before the topping has adequately hardened, a minimum of 14 days after installation.

■ 13. Sealer Application:

If an older concrete slab is to be protected with SCOFIELD Cureseal 100 or an additional seal coat is to be applied to newly placed concrete cured with SCOFIELD Cureseal 100, all



surfaces must be properly prepared as described in section 12. *Preparation for Sealing.*

One coat of SCOFIELD Cureseal 100, backrolled, is usually sufficient on new concrete previously cured with SCOFIELD Cureseal 100. Two coats of SCOFIELD Cureseal 100 should be used for unsealed existing concrete, quarry tile, brick, block, stone, exposed-aggregate, or SCOFIELD Texturetop surfaces.

Surrounding areas, landscaping, and adjacent surfaces must be masked or protected from overspray, spills, tracking, and equipment contact. The work area should be roped off, nearby vehicles removed, and appropriate sections closed to traffic. All open flames, pilot lights, sparking equipment, or any other source of ignition must be extinguished or removed. The surface should be divided into work sections using walls, joint lines, or other stationary features as natural stopping points. This allows for easier control of coverage, wet edge, and overlap.

All washed or wet areas should be allowed to dry thoroughly before the application of SCOFIELD Cureseal 100 or moisture may be trapped under the sealer, causing a white haze to develop. Applying an additional coat of SCOFIELD Cureseal 100 over the whitened areas will dissolve the sealer, allowing the moisture to escape. The sealer will then reharder clear.

SCOFIELD Cureseal 100 requires no mixing or dilution and must be applied full strength (unthinned). Application must be made at the coverage rate recommended in section 2. *Coverage* using the equipment described in section 11. *Equipment for Preparation and Application.*

The sealer must be spread as thinly and evenly as possible using a long-napped roller or applicator. Curbs, risers, or walls are easily roller coated. A wet edge should be maintained, and overlap controlled. SCOFIELD Cureseal-VOC should not be overapplied or allowed to puddle or collect in joint indentations. A brush or rag should be kept available to brush out or mop up excess material.

The sealer should be applied on a calm day when concrete and air temperatures are between 40° and 80° F (4-28° C) and will not fall below 40° F (4° C). The surface must be dry and not subject to moisture that may interfere with the sealer drying properly. Application should not be made during rainy, foggy, or very humid weather when water condensation forms on the surface. On hot, dry days, application should be made during the cooler part of the day and when the concrete is in the shade.

The second seal coat may be applied after the first coat has dried sufficiently, normally 1–2 hours after application of the first coat depending on temperature and humidity. For a more even application, the second coat should be applied at 90 degrees to the direction of the first coat.

After application is finished, tools should be cleaned with an aromatic solvent following the solvent manufacturer's instructions and safety requirements. SCOFIELD Cureseal 100 must be allowed to dry completely, normally 8–24 hours, before it is subjected to temperatures below 40° F (4° C) or to water from any source, such as hoses, sprinklers, condensation, or rain.

Sealed surfaces will be tack-free after approximately 1 hour at a temperature of 70° F (21° C) and 50% relative humidity. Under these conditions, the area may be walked on gently after a minimum of 2 hours.

After the sealer is completely dry, the area may be opened to light use after a minimum of 8 hours and to general use after a minimum of 24 hours. Longer drying times are helpful and will be necessary if temperatures are lower or the humidity is higher. The full performance capabilities of SCOFIELD Cureseal 100 develop within approximately 24 hours after application at 70° F (21° C) and 50% relative humidity.

To avoid staining, the sealed surfaces should be protected from damage by other trades until they are fully cured. Heavy objects dropped or dragged will abrade the surface of the sealer.

All sealed surfaces should be thoroughly inspected to verify and approve installation and safety, including wet and dry slip resistance, before the area is opened to traffic.

■ 15. *Maintenance and Removal:*

All maintenance and removal methods should be tested, and all surrounding areas should be closed to traffic, roped off, and protected.

For maintenance, sealed interior surfaces should be top-coated with a sacrificial floor finish to protect and maintain the original appearance and extend the period between reapplications of SCOFIELD Cureseal 100. After the final SCOFIELD Cureseal 100 application has been allowed to dry a minimum of 72 hours, a compatible, slip-resistant, emulsion-type, commercial floor finish should be used following the manufacturer's instructions and safety requirements.

A maintenance application of SCOFIELD Cureseal 100 should be made periodically as the sealer is worn off the surface. The need for maintenance applications will be accelerated in areas of heavy use or that receive frequent or aggressive cleaning. It is not necessary to strip the previously applied SCOFIELD Cureseal 100 unless film buildup is heavy or the surface cannot be cleaned sufficiently. All dirt and contaminants must be completely removed from the surface of the sealer, and the surface thoroughly rinsed and allowed to dry. Wear paths, scratches, scrapes, and other areas where the sealer has been removed by wear or cleaning should be spot sealed with SCOFIELD Cureseal 100, using a fine-bristle brush or airless sprayer and feathering the sealer into the surrounding surface. After the spot-sealed areas are completely dry, SCOFIELD Cureseal 100 may be reapplied and slip resistance verified following the instructions in section 13. *Sealer Application.* Care must be taken so that excessive buildup of the sealer does not occur, thereby reducing durability and slip resistance.

When complete removal of SCOFIELD Cureseal 100 is necessary, commercial coating removers or strippers should be tested and evaluated for safety and effectiveness following the manufacturer's instructions and safety requirements.

■ 16. *Availability:*

SCOFIELD Cureseal 100 is marketed nationwide and internationally, directly to the user and 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.

■ 17. *Warranty Summary:*

For the complete warranty statement and important limitations, read the *Material Safety Data Sheet and Warranty.* Generally, Scofield represents and warrants only that its products are of consistent quality. No other oral or written statement is authorized. Any liability is limited to refund or replacement of defective product. The end user shall determine product's suitability and assume all risks and liability.



Suggested Short Form Specification for Curing and Sealing Concrete Flatwork:

All concrete flatwork designated as being cured and sealed in the plans and specifications shall be (optional: cured and) sealed with SCOFIELD® Cureseal 100™ sold by L. M. Scofield Company, (800) 800-9900, Los Angeles, CA, (323) 720-3000, and Atlanta, GA, (770) 920-6000. SCOFIELD® Cureseal 100™ shall be applied full strength in accordance with Scofield's Tech-Data Bulletin TD-1636.



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L. M. Scofield Company - A SIKA COMPANY

■ 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