

Micro-Seal® SiH₄ 100

Silane with MICRO-LOK™

TECHNICAL DATA SHEET



High solids Silane water repellent provides protection from mold, mildew, and efflorescence. Clear long lasting formula designed to seal a variety of surfaces.

Micro-Seal® CSI Reference

03 35 43 Concrete Finishing
04 40 00 Unit Masonry
09 61/96 Finishes
09 24/25 Finishes

*standard warranty period is 5 years

Description

Micro-Seal SiH₄ 100 is a 100% silane sealer designed to penetrate deeply into concrete and a variety of porous substrates to prevent moisture intrusion, salt-ion intrusion, staining and freeze/thaw damage. Due to the small particle size, it penetrates deeper for longer lasting protection and performance. The depth of penetration can be controlled based on application spread rates. Ideal for concrete and masonry substrates due to it's reactive nature that chemically bonds with the substrate. Micro-Seal SiH₄ 100 is not affected by UV light and wind-driven rain.

Features & Benefits

- Deeper penetration for long lasting results
- Will never yellow, haze, crack or peel
- Does not etch metal or glass
- No film formation – less maintenance
- Allows substrates to breathe without trapping moisture
- Reduces rebar rusting in concrete and surface erosion from salts
- Can be subjected to wheeled or vehicular traffic
- Does not alter the substrates appearance – No gloss or Enhancement

Dilution

DO NOT DILUTE. The product is Ready to Use.

Coverage Rate by Substrate (theoretical)

The coverage depends on the surface. Test the product on a small area of the substrate to estimate coverage. Extremely porous surfaces may require multiple coats.

Substrate	Sq Ft/ Gallon
CMU & Block	60 - 90
Adobe Block & Natural Stone	80 - 100
Clay Brick	135 - 160
EIFS	90 - 130
Stucco	110 - 160
Concrete	145 - 170
Concrete Curing	320 - 420

The use of fluted, scored block, raked joints, sandblasted or etched surfaces will result in greater absorption and lower coverage rates, by up to 40%. Test these areas for the expected coverage rate before general application. Allow for this increased surface area when determining material requirements.

Surface Preparation

Prior to application, all surface shall be clean and dry with no oils, dirt, debris, or minerals such as efflorescence, lime and calcium. These stains, along with others, will prevent proper penetration of Micro-Seal® SiH₄ to sufficiently seal for the warranty period.

The use of Rainguard's Restore-N-Prep™ Concrete and Masonry Cleaner system is recommended as a pre-treatment to clean masonry surfaces. Once clean, allow the surface to fully dry before sealing or applying a top-coat (See the Restore-N-Prep™ TDS for details).

Restore-N-Prep™ CSI Reference

03 01 40 Concrete Finishes
03 10 30 Concrete Finishes
03 10 50 Concrete Finishes
04 01 20 Unit Masonry
04 01 40 Unit Masonry



Application Instructions

1. Apply Micro-Seal® SiH₄ using a hand pumped garden sprayer (do not atomize) or low-pressure airless spray equipment.
2. If using airless spray equipment we recommend a spray tip size of .035 to .051. Spray head should be held 8 to 12 inches from the surface.
3. Apply a flood coat to the point of saturation. This is achieved when the material is dripping 8-12 inches from the point of application.
4. Apply material following the coverage rate previously listed (P.1).
5. Avoid application in windy weather.
6. Trigger gun off at the end of each pass to avoid using excessive materials.
7. Multiple coats may be applied. Whitening or yellowing will not occur.

Test Panel

Always apply Micro-Seal® SiH₄ onto a mock wall or test panel. Test the wall or an actual surface area to determine acceptable color, surface porosity, application rates and methods before starting general application.

Safe Handling

Use product only with adequate ventilation and/or an appropriate cartridge type respirator. Avoid contact with skin and wear protective gloves. Read the Safety Data Sheet before using.

Precautions

Use material in a well-ventilated area. Protect the work of other trades. Protect shrubbery and other plants with drop cloths. Protect automobiles and all other areas not to be coated from overspray. Remove overspray from any windows, automobiles, metal, etc. as soon as possible should it occur. To prevent permanent staining, clean spills or leaks in a timely manner.

All surfaces to be coated should be clean of any dirt and grime, efflorescence, lime run, form oils and release agents, grease, mud, excess mortar, and mold and mildew, etc. All cracks should be pointed or caulked. All voids, beeholes, masonry surface defects and openings such as conduits, pipes, drains, door frames, vents, air conditioner openings, electrical openings, control joints, or any dissimilar materials should be repaired using urethane or other approved patching.

Do not apply to surfaces if moisture content is greater than 25% as measured with an electronic moisture meter. Do not apply materials in climates where freezing temperatures have existed prior to application. Allow adequate time for surfaces to thaw. Establish that air, surface, and material temperatures are above 40°F (4.4°C) and at least 5°F above the dew point prior to painting. Do not apply at temperatures below 40°F when temperatures are expected to drop below 40°F within 48 hours of application. Do not apply if rain, snow, or lower temperatures are expected within 48 hours. Do not apply if relative humidity is greater than 90%.

Clear water repellents are not designed to waterproof horizontal masonry surfaces such as ledges, sills, cornices and parapet walls, etc.

Store materials in a well-protected area at 45° - 90°F. Avoid freezing temperatures, direct sunlight, and moisture. Keep away from heat sources.



Approvals & Qualifications

LAUSD - OESH	Approved
USGBC - LEED Points	Up to 3 Points
LEED (New Construction)	Approved
LEED (New Schools/CHPS)	Approved
CARB	Approved
SCAQMD	Approved
FDA	Meets Requirements
USDA	Meets Requirements

Test Data

ASTM C666	2200 Cycles - No effect
ASTM C672 100 Cycles	No Mass Loss, No Scaling
ASTM D2243	Do Not Freeze
ASTM G154 2,500 HOURS	No Loss in Repellency
ASTM C672/C672M	No Scaling, 100 Cycles Treated Concrete
Wind Driven Rain	ASTM E-514-86., 98.7% Leak Red
Water Pen Fed Spec	SS-W-110C, 75% Min Req, 96.8 Leak Red Chloride Ion Intr
Salt Pounding NCHRP	No. 244 Series IV - 95% Red No. 244 Series II - 87% Red
Chloride Ion Absorption	No. 244 Series II - 87%
Water Abs CMU ASTM C140-75	98.6% Effective
Water Vapor Trans ASTM D-1653-71	100% Vapor Perm
Water Repellency ASTM C67-87	98.6% Effective
Weathering ASTM G-53	3,500 Hours - No Change
Surface Burning ASTM E84	Flame Spread 0, Smoke Development 0

Technical Data

Material Type	Silane
Active Content	100%
Volume Solids	85%
Color of Material	Milky White
Odor	No Odor
V.O.C.	30 g/L
Flash Point	Non-Flammable
pH Value	6
Viscosity	9.6 Seconds No. 4 Ford Cup
Weight	Approximately 8.8 lbs./Gal.
Surface Dry/Recoat	Approx 1 Hour
Full Chemical Cure	5 to 7 days



Warranties

Rainguard Brands, LLC guarantees that this product is free from manufacturing defects and complies with our published specifications. In the event that the buyer proves that the goods received do not conform to these specifications or were defectively manufactured, the buyer's remedies shall be limited to either the return of the goods and repayment of the purchase price or replacement of the defective material at the option of the seller. Rainguard Brands, LLC makes no other warranty, expressed or implied, and all warranties of merchantability and fitness for a particular purpose are hereby disclaimed. Manufacturer or seller shall not be liable for prospective profits or consequential damages resulting from the use of this product. Manufacturer shall not be liable for material used outside of its shelf life. For product dating, please refer to the batch number on the product or contact Rainguard Brands, LLC.

Surface conditions and application variables are out of the control of Rainguard Brands, LLC. As such, the applicator agrees to: Follow recommended application instructions, acknowledge limitations outlined in this technical data sheet, contact the manufacturer in the event there any uncertainties, perform a test panel to confirm fit and finish before any general application. The data on this sheet represent typical values. Since application variables are a major factor in product performance, this information should serve only as a general guide. Rainguard Brands assumes no obligation or liability for use of this information. Contact manufacturer at 888-765-7070 before bidding to confirm warranty provisions and procedures.

SELLER'S LIABILITY UNDER THE SALE OF THIS PRODUCT IS LIMITED TO REPLACING DEFECTIVE PRODUCT. HOWEVER, IF SELLERS FAILS IN ITS ATTEMPT TO REPLACE THE DEFECTIVE PRODUCT, BUYER WILL BE ENTITLED TO A REFUND OF MONIES PAID TO SELLER UNDER THIS PRODUCT WARRANTY. SELLER IS NOT LIABLE FOR BUYER'S LOSS OF PROFITS, BUSINESS GOODWILL, OR OTHER CONSEQUENTIAL DAMAGES, DESPITE ANY FAILURE TO REPLACE THE PRODUCT. BUYER HAS ACCEPTED THIS RESTRICTION ON ITS RIGHT TO RECOVER CONSEQUENTIAL DAMAGES AS PART OF ITS BARGAIN WITH SELLER. BUYER REALIZES AND ACKNOWLEDGES THAT THE PRICE OF THE PRODUCT WOULD BE HIGHER IF SELLER WERE REQUIRED TO BE RESPONSIBLE FOR BUYER'S CONSEQUENTIAL DAMAGES."

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