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**SCP 327** is a penetrating colloidal silica concrete treatment that is spray-applied within 24 hours after concrete placement.

**ABOUT THIS PRODUCT**

When applied to unburnished concrete, SCP 327 penetrates into the concrete, filling the accessible pore space with naturally occurring concrete reaction product. This action reduces the water vapor transmission to levels low enough for even the most moisture-sensitive flooring materials. SCP 327 works within the concrete and does not change the mechanical key left by the finisher. SCP 327 is not a bond breaker because the product does not create a membrane at the surface.

Flooring can be installed in as little as 14 days after treatment without concern for moisture related failure. Construction can continue without the concern for moisture problems that affect project budgets and schedules. As a reactive penetrant, SCP 327 treated concrete does not need moisture testing.

SCP 327 provides permanent concrete protection and waterproofing from the inside out, leaving no surface residue, providing the optimal conditions for flooring installation. SCP 327 is a one-time application to manage moisture concerns; no longer will a project need to have moisture mitigation. Since SCP 327 works within the concrete, demolition of existing flooring or other construction practices such as anchor bolt placement can be performed without compromising the moisture control.



**TYPICAL APPLICATION RATE**

**Concrete**  
 200 ft<sup>2</sup> per 1 gallon  
 (4.9 m<sup>2</sup> per 1 liter)

**PERFORMANCE**

Test Method Standard	Typical % Improvement
ASTM E96 WATER VAPOR TRANSMISSION	70%
EN 12390-8 DEPTH OF HYDROSTATIC PEN.	70%

**Recommended Equipment for Applications**

**Important:** When using an airless sprayer on freshly placed concrete, be sure to adjust pressure settings so that no surface damage occurs. The use of centrifugal pumps is not recommended.

Use a low to medium pressure sprayer complete with an extension wand and fan tip spray size of 0.024-0.031 inches (0.61-0.79 mm) for flatwork applications.

Alternate spray system: Use an agricultural sprayer using an approximate 5 gallons per minute (18.93 liters per minute) diaphragm pump and fan tip spray size of 0.50-1.0 gallons per minute (1.89-3.79 liters per minute) for flatwork applications. A backpack or Hudson type sprayer should be used if only applying one bucket or fewer of material.

**Recommended Application Method**

**Important:** Spray in a 50% overlapping pattern.

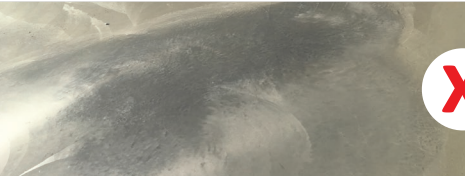
For slab applications, hold wand perpendicular to the surface and spray 6 inches (15 cm) from the surface. Apply product using the prescribed application rate for the area. If pooling or dry areas are observed while applying, use a broom to distribute material so that the product remains uniform throughout the application area. Do not allow excess material to dry on the slab. Remove excess SCP 327 with a foam squeegee, wet-vac, or mop.

**Note:** Product not removed from the slab may become slippery in a wet condition.

SCP recommends full-slab treatments. If full-slab treatments cannot be performed, then treatments should extend beyond the proposed treatment area to the nearest control or construction joint.

**Time of Placement**

SCP 327 should be used at the time of placement. This is defined as applying product within 24 hours of final finish. Apply SCP 327 after final troweling has been completed and concrete can take foot traffic without damage.



**Concrete Finish**

The concrete surface finish is a key part of the SCP product application process. The surface finish should be discussed with the concrete foreman and the superintendent prior to concrete placement. The surface, if hard troweled, should be finished in an open fashion (unburnished), avoiding a burnished or black surface finish. SCP products need a porous (open-matte) finish to penetrate into the concrete and perform as intended. SCP recommends observing the concrete finishers during the finishing process to ensure the concrete is not burnished.



**Admixtures**

The use of moisture vapor reducing admixtures (MVRA), integral waterproofing admixtures, or latex admixtures **should not be used** when utilizing SCP spray-applied technology.

**Accelerators**

Accelerators are often used during colder months to accelerate the setting of the concrete. These admixtures will also accelerate the action of SCP products. If these admixtures are used (check batch tickets), applicators should test a small area prior to a full application. Tests should be conducted periodically. A test section measuring approximately 3 ft x 3 ft (0.914 m x 0.914 m) is recommended. Apply SCP product to this area and wait 15 minutes. If the SCP product begins to appear milky and turns into a gel or feels very slippery, then the accelerator is still active. Re-test until the product remains unchanged from its normal consistency. Once the SCP product remains unchanged on a test area for a minimum of 15 minutes, full application can begin.

**Typically Applied Concrete Products**

There are many concrete additives on the market. Some of these will work in conjunction with SCP 327, some will not.

If a monomolecular evaporation retarder (MMER) is used on the concrete, the MMER should be applied in accordance with the manufacturer’s recommendations.

When specified, curing compounds (ASTM C309 or ASTM C1315 products) can be used but should only be used after the SCP 327 application. If a curing compound is used prior to the SCP 327 application, do not treat the concrete with SCP 327.

**ENVIRONMENTAL CONDITIONS**

**Hot Weather**

One of the challenges of hot weather applications is rapid evaporation and unwanted gelling. SCP recommends pre-wetting concrete when surface temperature is above 90°F (32.2°C). Pre-wetting consists of spraying a light coat of water directly in front of the SCP 327 application. This process helps in preventing rapid evaporation of SCP 327 from the surface of the slab, allowing for better penetration into the hot concrete. SCP 327 should be removed before allowing to dry on the slab.

**Cold Weather**

Challenges faced during cold weather applications include low temperature application, accelerator addition, and shorter days. The minimum air and concrete temperature at which SCP 327 can be applied is 35°F (1.7°C) and rising. If an accelerator is used in the concrete mix, test a small area as described in the Accelerators section of this document. With shorter days



during the winter months, longer set times could push SCP 327 application to a later time when temperatures are too cold. Application may need to take place the following morning. If this is the case, the concrete may need to be protected with blankets or other means.

#### Rain Event

A rain event is defined as liquid precipitation that is sufficient enough to cause standing water on the concrete structure. If a light mist is observed that causes no standing water, this is not considered a rain event and application does not require interruption.

If a rain event begins during an application, the portion of the slab that has been treated and squeegeed off is considered treated. If a portion of the slab is being treated and not squeegeed when it rains, SCP 327 will need to be reapplied after rain has stopped. Mark the area last treated so that you have a reference on where to resume application after the rain event. After rain has stopped, the slab should be squeegeed to remove all standing water. Application can continue as normal, beginning after the last treated section of the slab.

#### POST-APPLICATION

##### Traffic

Foot traffic is allowed one hour to three hours after application. Equipment traffic can be allowed after 24 hours and when the design professional determines the concrete is strong enough to handle the load.

##### Control Joints

SCP requests that control joints are cut *after* SCP 327 has been applied. If the control joints are cut prior to the placement of SCP products, the area will need to be cleaned to remove the residue dust from the cutting. ***SCP 327 can react with the dust creating a slick surface.***

#### NOTES

- » Like fresh concrete itself and other alkaline materials, SCP 327 may etch glass, aluminum, brass, and other metals if left to dry on the surface. Remove the SCP product while wet.
- » If considering application of this product on precast concrete products, contact the SCP technical department before use as precast products vary widely in porosity and construction.
- » ***DO NOT*** apply on frozen substrate.
- » Joints, cracks, and penetrations should be addressed separately as part of the overall waterproofing plan. ASTM F710 addresses how to handle any cracks and joints in a slab. SCP recommends using a waterproof product meant for the joint or crack and is approved under the flooring as well. For penetrations (any hole that penetrates through the concrete), SCP recommends a water stop material around them.

##### Packaging/Storage

SCP 327 is packaged in 5-gallon pails, 20-liter pails, and multi-gallon totes. Product shall ideally be stored in a location that is dry and between 35°-100°F (2°-38°C) ambient temperature. Optimal storage is at the middle of the temperature range. Protect the product from freezing and exposure to direct sunlight. 5-year shelf life under proper storage conditions.

##### General Information

For safe handling information on this product, see the Safety Data Sheet (SDS).

**PRODUCT  
ATTRIBUTES**

**Color**

Translucent White

**Odor**

None

**Specific Gravity**

1.10

**pH**

11.5 +/-

**Flammability**

0 (non-flammable)

**VOC/VOS Content**

0.0 g/mL

**Clean-up Solvent**

Water

**Environmental  
Impact**

None/Neutral

**User Status**

Friendly

**Product Warranty**

SCP warrants the product to be free from material defects provided that the product was sold within its identified shelf life and stored according to guidelines on product packaging. SCP's sole liability shall be limited to the purchase price paid by the customer for SCP 327 for the quantity of defective material.

Mock-ups, testing, or sample applications to determine fitness of products for a particular use are the responsibility of the user. In-house and independent testing supports the instructions and claims made in this document. Due to the variation in job conditions, surface preparations, concrete substrates, and application methods, SCP cannot ensure uniformity in product performance.

**QUESTIONS?**



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