

5959 Shallowford Road, Ste. 405
Chattanooga, TN 37421
423.305.6151
SCPTech@spraylock.com
concreteprotection.com

SCP 327 is a penetrating 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.

Coatings, coverings, and 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, while providing the optimal conditions for densifying and polishing concrete. 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.

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 product with a foam squeegee, wet-vac, or mop.

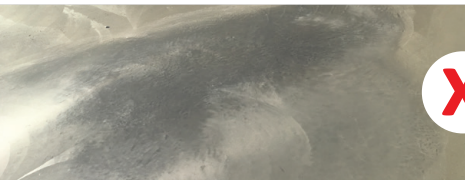
Note: Product not removed from the slab may become slippery in a wet condition.

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.



TYPICAL APPLICATION RATE

Concrete
200 ft² per 1 gallon
(4.9 m² per 1 liter)



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 on horizontal surfaces. 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 products, 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 product application. If a curing compound is used prior to the SCP product 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 SCP product application. This process helps in preventing rapid evaporation of SCP products from the surface of the slab, allowing for better penetration into the hot concrete. SCP products 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 products 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 product 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 company may need to protect the concrete 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 products 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 products have 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 products 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.

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

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 product for the quantity of defective material. Seller disclaims all other warranties, expressed or implied, oral or written, including, without limitation, the implied warranties of merchantability and fitness for a particular purpose.

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?  [423.305.6151](tel:423.305.6151)
 SCPTech@spraylock.com

NOTE TO SPECIFIER: Be sure to obtain the latest version of this Guide Specification.

This Guide Specification is not a completed document ready for use. It must be edited (i.e., deleting, adding, or modifying text) as required to suit project requirements.

The design professional and the contracting parties of the Contract Documents are responsible for the accuracy of issued project specifications, including use of this SCP™ Guide Specification.

Contact SCP™ for instructions for other applications not included in this specification.

SCP™ (SPRAY-LOCK CONCRETE PROTECTION™) SHALL NOT BE LIABLE FOR DAMAGES ARISING OUT OF THE USE OF THIS GUIDE

CSI 3-PART SHORT-FORM GUIDE SPECIFICATION

EDIT TO SUIT PROJECT REQUIREMENTS

SECTION

SCP™ SPRAY-APPLIED COLLOIDAL SILICA CONCRETE TREATMENTS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes SCP™ spray-applied, penetrating, colloidal silica concrete treatments and substrate protection, applied after finishing for new concrete.

1.2 PRE-POUR MEETINGS

- A. Pre-pour meeting: SCP™ personnel or approved representative should be in attendance, in-person or by phone, at the pre-pour meeting for concrete placement to discuss the requirements for slab preparation and product application.

1.3 SUBMITTALS

- A. Product Data: For each type of product.
- B. Sample Warranty: For special warranty.

1.4 QUALITY ASSURANCE

- A. Material Requirements: Concrete mixes need to be Portland cement based and designed in accordance with ACI and ASTM requirements.
- B. Manufacturer Qualifications: ISO 9001 Certified Manufacturer with a minimum 5 years' experience and capable of providing field service representation;

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : SCP 327
 Substance name : Amorphous Colloidal Silica

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Concrete treatment

1.3. Details of the supplier of the safety data sheet

Spray-Lock, Inc.
 5959 Shallowford Road Suite 405
 Chattanooga, TN 37421 - USA
 T 423-305-6151
info@spraylock.com

1.4. Emergency telephone number

Emergency number : +1 (423) 305-6151

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

GHS-US labelling

No labelling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

None.

SECTION 3: Composition/information on ingredients

3.1. Substance

Proprietary Formula

Name	Product identifier	%
Silicon Dioxide	(CAS No) 7631-86-9	< 50
Water	(CAS No) 7732-18-5	> 70

3.2. Mixture

This mixture does not contain any substances to be mentioned according to Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Move the affected person away from the contaminated area and into the fresh air.
 First-aid measures after skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
 First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water. If easy to do, remove contact lenses, if worn.
 First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : Not a normal route of exposure.
 Symptoms/injuries after skin contact : May cause skin irritation.
 Symptoms/injuries after eye contact : May cause eye irritation.
 Symptoms/injuries after ingestion : Not a normal route of exposure.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SCP 327

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Powder, water spray, foam, carbon dioxide.
Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not combustible.

5.3. Advice for firefighters

Protection during firefighting : Keep upwind of fire. Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Keep unnecessary personnel away from the release.

6.2. Methods and material for containment and cleaning up

For containment : Stop leak, if possible without risk.
Methods for cleaning up : Dilute spill directly with plenty of water and drain to sewer.

6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety practice. When using do not eat, drink or smoke.
Hygiene measures : Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Keep container tightly closed. Protect from sunlight. Do not freeze. Store at temperatures between 5 °C (40 °F) and 38 °C (100 °F).

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

None

8.2. Exposure controls

Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
Personal protective equipment : Avoid all unnecessary exposure.
Hand protection : None necessary under normal conditions of use. Wear gloves if handling large quantities.
Eye protection : Wear eye protection.
Skin and body protection : Wear suitable protective clothing.
Respiratory protection : In case of inadequate ventilation wear respiratory protection.
Environmental exposure controls : Maintain levels below Community environmental protection thresholds.
Other information : Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Translucent
Color : Clear
Odor : Odorless
Odor threshold : Not applicable
pH : 11.2 - 11.5
Melting point : 0 °C (32 °F): Water / 1,713 °C (3,115 °F) Amorphous Silicon Dioxide

SCP 327

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Freezing point	: 0 °C (32 °F): Water
Boiling point	: 100 °C (212 °F): Water
Flash point	: Not applicable
Relative evaporation rate (butylacetate=1)	: 0.3
Flammability (solid, gas)	: Not flammable
Explosive limits	: Not applicable
Explosive properties	: Not applicable
Oxidising properties	: Not applicable
Vapor pressure	: 3.1690 kPa @ 25°C (0.0313 iatm @ 77°F)
Relative density	: 1.10
Relative vapor density at 20 °C	: 1.73 x 10 ⁻⁵
Solubility	: Not applicable
Partition coefficient: n-octanol/water	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: > 2,000 °C
Viscosity, kinematic	: 24 cSt @ 25 °C (77 °F)
Viscosity, dynamic	: 26 cP @ 25 °C (77 °F)

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat. Incompatible materials.

10.5. Incompatible materials

Acids.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified.

SCP 327	
LD50 oral rat	No data available
LD50 dermal rabbit	No data available
LC50 inhalation rat	No data available

Skin corrosion/irritation	: Based on available data, the classification criteria are not met.
Serious eye damage/irritation	: Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Reproductive toxicity	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure)	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (repeated exposure)	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.

SCP 327

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Symptoms/injuries after inhalation : Not a normal route of exposure.
Symptoms/injuries after skin contact : May cause skin irritation.
Symptoms/injuries after eye contact : May cause eye irritation.
Symptoms/injuries after ingestion : Not a normal route of exposure.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No known significant effects or critical hazards.

12.2. Persistence and degradability

SCP 327

Persistence and degradability	Not established.
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12.3. Bioaccumulative potential

SCP 327

Bioaccumulative potential	Not established.
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12.4. Mobility in soil

No information available

12.5. Other adverse effects

No information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. This material is not subject to RCRA, EPCRA, CERCLA regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

Not regulated for transport

Additional information

Other information : No information available.

Special transport precautions : Do not handle until all safety precautions have been read and understood.

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. US State regulations

SCP 327

State or local regulations	This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.
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SECTION 16: Other information

Date of issue : 08/27/2015

Revision date : 05/05/2020

Other information : None.

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

31-SDS-SCP-327

Date: 05/05/2020

Rev.: 1.6

Spray-Lock Concrete Protection®

SCP 327 Waterproofing Warranty

Rev. E 05/20/2020

Limited Warranty

Spray-Lock Concrete Protection (SCP) will warrant installed systems against separating from the concrete substrate due to water migration or moisture vapor transmission through the concrete in the specific area(s) where SCP product was applied for a period of fifteen (15) years from date of substantial completion of the project. This warranty is void if SCP's application instructions or any other technical information stipulated in SCP's documentation were not strictly followed.

This limited warranty is for the sole and exclusive remedy of purchaser for any claim concerning this product, including, but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise covers against failures due to concrete water and subsurface water transmissions through the parent concrete, but not from topical surface intrusion, transfer and/or migration from an untreated external source such as flooding, or seepage through concrete via joints, wall joints, structural cracks, and/or other contiguous untreated areas of the facility.

By this limited warranty, SCP agrees that should the SCP treatment fail due to water migration or alkalinity (up to pH of 14); SCP will repair and/or replace, at its expense including direct labor and materials affected in the SCP treatment area, the SCP treatment and the following:

- 1) SCP will be involved in the repair work; proposed costs for labor and material costs shall be submitted to SCP for review and approval. Coatings, covering systems, and flooring systems will be replaced based on current pricing for the same materials or equivalent at SCP's discretion.
- 2) This applies only to the installed system as originally applied and only to that portion of the system which is affected by the defect between closest transitions. SCP will not be responsible for the replacement of any portion of the installation that is not defective, regardless of whether such non-defective portions are replaced for cosmetic or other such reasons.

This limited warranty is further subject to the following conditions:

1. SCP products must be applied according to SCP application specifications, with application records kept by applicator or contractor and made available to SCP upon request, on structurally sound and clean areas in which the concrete is fit-for-purpose for application and meets acceptable industry standards as defined in the current editions of ACI 318 and 201. If the areas to which the products are applied now or in the future fail to meet these requirements, the limited warranty shall be void.
2. This limited warranty shall be void if a waterproofing admixture or moisture vapor reducing admixture (MVRA) is utilized in the concrete or another moisture remediation product is used prior to the installation of this product.
3. The limited warranty shall be void if a cohesive substrate failure at the concrete surface occurs resulting in an installed system failure, the concrete surface has been treated with any kind of waterproofing, penetrating, and/or topical surface sealer or curing compound prior to SCP product application, and/or has alkali-aggregate reaction (AAR) conditions causing failure, surface scaling, and/or bond-inhibiting contaminants are present. Cracks and joints are not covered by this limited warranty.
4. The limited warranty shall be void if substrate concrete is determined, through independent forensic examination, to have not met the project specifications or engineer-approved mix design in any required constituent percentage within the tolerances allowed by ASTM C94 (for ready mixed concrete) or applicable ASTM/PCI for precast concrete.
5. The limited warranty shall be void if SCP products have been improperly applied by the applicator.
6. This limited warranty shall be void if the account is not paid in full by 60 days from the date of purchase. For special considerations that prove to be necessary on large projects or any other requested accommodations documentation must be on-file with SCP Customer Service.
7. SCP makes no other warranty, expressed or implied, and is not responsible for substandard concrete workmanship or practices in placing, or finishing. SCP is not responsible for substandard slab preparation and/or flooring installation. SCP shall be entitled to legal fees, costs, and expenses, in defending and enforcing this warranty against the purchaser, end-user, and others, regardless of any local law or ordinance that prohibits such entitlements.

Subject to all the conditions described herein, provided that SCP product has been made available and installed according to SCP guidelines, SCP will be responsible for reinstatement of the systems as listed above, which results from a breach of this limited warranty caused by a defect as described herein. The account related to this limited warranty must be paid in full prior to the limited warranty being effective. Any claim under this warranty must be first presented in writing to SCP. Any action in regard hereto or arising out of the terms and conditions hereof shall be instituted and litigated in the courts of the state of Tennessee in Hamilton County, Tennessee or any federal court sitting therein and no other. In accordance herewith, the parties hereby submit to the jurisdiction and venue of such courts and waive any objection that such courts are an inconvenient forum. The parties hereby waive the right to a jury trial in any action, proceeding or counterclaim arising out of or related to this limited warranty. In no event shall SCP be liable for any special, incidental, consequential, or punitive damages, including loss of profits and use.

The recipient of the limited warranty must provide SCP a written notice within thirty (30) days after the discovery of a breach of this limited warranty in order to assert its right to any repairs covered by this limited warranty. Claims shall be addressed to 5959 Shallowford Road, Suite 405, Chattanooga, TN 37421, Attn: Technical Director.