

## PRODUCT DESCRIPTION

**SIMIRON Urethane Cement SF** is a Heavy-Duty seamless flooring system typically installed at 3/16" and broadcast to rejection with silica sand or quartz to achieve 1/4" total thickness. **SIMIRON Urethane Cement SF** is an extremely durable flooring system that withstands thermal shock, impact, abrasive traffic and chemical exposure.

**SIMIRON Urethane Cement SF** can be applied with a variety of surface textures and topcoat options to meet individual project requirements and can also be used as a concrete resurfacing product or a moisture vapor control system.

**SIMIRON Urethane Cement SF** is formulated with a natural additive to be resistant to Fungi Growth per the industry standard ASTM G-21.

## FEATURES & BENEFITS

- Seamless, hygienic finish
- Impact & abrasion resistant surface
- Low odor, fast installation, fast cure
- Thermal shock & chemical resistance
- Withstands temperature swings up to 250°F
- Steam Cleanable
- High temperature resistant to 200° F\* (\*varies with different topcoat options)
- Anti-slip surface, meets ADA recommendations
- Resistant to 20 lbs. moisture vapor transmission (MVT) per ASTM 1869 or 95% RH per ASTM F2170
- Resistant to fungi growth per ASTM G-21

## RECOMMENDED USES

- Restore Eroded Concrete Floors in High Traffic Environments
- Food Processing Kitchens
- Commercial Kitchens
- Food and Beverage Plants
- Sugar Processing Plants
- Meat and Poultry Plants
- Pharmaceutical Facilities
- Chemical Processing Facilities
- Pulp and Paper Facilities
- Wet Processing and Packaging Areas

## TECHNICAL DATA

### PHYSICAL DATA

Components	Three
Mix Ratio (by volume)	½ gal Part A + ½ gal Part B + 1 Bag of Filler
Pot-Life	15 minutes @ 77° F
Solids by Volume	100%
VOC's	5 gm/L
Application Temperature, Ambient	40 to 85°F
Application Temperature, Material	50 to 80°F

### CURE TIMES

Light Foot Traffic	12 hours
Light Wheel Traffic	24 hours
Full Cure	7 Days

**\*\*Tested at 77°F and 50% humidity. Cooler temperatures may slow down cure times. Higher temperatures of humidity may speed up cure time.**

### THEORETICAL COVERAGE

Coverage is 23 sq. ft. per unit at application thickness of 3/16".  
Finished floor thickness of 1/4" after broadcast to rejection.

### PHYSICAL PERFORMANCE PROPERTIES

PHYSICAL PROPERTIES	TEST METHOD	RESULTS
Compressive Strength	ASTM C579	8,300 psi
Tensile Strength	ASTM C307	1,000 psi
Flexural Strength	ASTM C580	2,550 psi
Bond Strength	ASTM D4541	100% Concrete Failure
Impact Strength	ASTM D4226 (IN/LBS)	>160 IN-LB
Resistance to Fungi Growth	ASTM-G21	Passes, Rating of 1



# URETHANE CEMENT SF

PRODUCT DATA SHEET  
Edition 07/2020  
Version 001  
30000279

## SURFACE PREPARATION

Apply only to properly prepared clean, dry and sound concrete substrates that are free of all coatings, sealers, curing compounds, oils, greases or any other contaminants.

1. New concrete should ideally be cured for a minimum of 14 days to reduce possible shrinkage cracking in the concrete. **SIMIRON Urethane Cement SF** can be installed after 14 days or when concrete reaches a minimum 3,500 psi compressive strength which will allow for proper surface preparation. However, early curing movement, shrinkage or cracking that may occur in the concrete will be reflected through the final **SIMIRON Urethane Cement SF** flooring.
2. Concrete that has been contaminated with chemicals or other foreign matter must be neutralized or removed.
3. Remove any laitance or weak surface layers including broom finished concrete surfaces.
4. Concrete should have a minimum surface tensile strength of at least 300 PSI per ASTM D-4541.
5. Surface profile shall be CSP-5 or greater meeting (ICRI international Concrete Repair Institute) standard guideline #03732 for coating concrete, producing a profile equal to 40-grit sandpaper or coarser.
6. Prepare surface by mechanical means to achieve this desired profile. All concrete surface irregularities, cracks, expansion joints, control joints and terminations should be properly addressed and prepared prior to application of the flooring. Moving joints and cracks may reflect through the final installed **SIMIRON Urethane Cement SF** flooring.
7. Honor all joints that are designed to move by saw cutting the joint and installing a joint filler designed to accommodate the structural movement of the joint after the installing of the **SIMIRON Urethane Cement SF**.

## SHELF LIFE AND STORAGE

Keep stored between 60°F [10°C] — 85°F [29°C] in a dry location.

⚠ Do not use partial bags of aggregate. ⚠ Do not allow materials to freeze.

Shelf life of six months from the date of manufacture on the label in the original unopened container stored in recommended conditions.

## LIMITATIONS

⚠ Do not apply at a temperature below 40°F [10°C] or above 85°F [29°C].

⚠ Do not delay in pouring mixed material onto the floor. ⚠ Do not make partial mixes. ⚠ Do not apply over loose or unsound concrete, asphalt or bitumen substrates, glazed tile or nonporous brick and tile, magnesite, copper, metal, polyesters, or elastomeric membranes. ⚠ This product is not UV stable and will discolor unless top coated with UV stable coating system. ⚠ Blisters or outgassing bubbles may develop if sand or aggregate is not broadcast into the slurry while wet.

⚠ Moving joints and shrinkage cracks may reflect through system. Joints that are designed to move may reflect through the finished flooring system if the are not honored. ⚠ Must be applied over clean, sound, concrete. Oil, grease, silicones, mold release agents, paint, epoxy coatings, and other contaminants may negatively affect adhesion

## TECHNICAL ASSISTANCE

Information is available by calling SIMIRON:

Toll Free: 1.866.515.8775 / Telephone: +1.248.686.3600



**QUESTIONS?**  
866.515.8775



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## APPLICATION

The following installation summary is for reference only and should not be relied upon as all inclusive. **SIMIRON Urethane Cement SF** systems should only be installed by trained persons experienced in polyurethane concrete flooring applications.

1. To prevent lifting or delamination, keyways (minimum 5/16" wide x 5/16" deep) must be cut at all terminations, joints, columns, doorways, and drains.
2. Clean sand and dust from prepared concrete where the floor is to be installed.
3. Option: Use **SIMIRON Urethane Cement CB** Cove Base material to install a cove and/or base as required. The cove/base can be installed before or after the installation of the **SIMIRON Urethane Cement SF** depending on the specification and or the desired result. **SIMIRON Urethane Cement CB** can be used to create a 45 degree cant cove as well.
4. It is very important to utilize a proper mixer and paddle to ensure a complete mix and to reduce the risk of introducing excessive air into the mixture. Simiron recommends the use of a MAN-U-FAB M-61 (1 HP) mixer with a 10 gallon pail and TR4-10 mixing arm.(www.mixall.com)
5. With the mixer running, pour ½ Gallon Part A into the pail.
6. Add 1 Powder Pigment to Part A and mix about 15 seconds.
7. Add ½ Gallon Part B and mix another 15 seconds.
8. Gradually add all contents of a Simiron SF Filler into the liquid mixture and blend thoroughly until all particles are wetted out, normally about two minutes.
9. Immediately after mixing (within 3 minutes), spread the mixed **SIMIRON Urethane Cement SF** onto the floor at the desired thickness, using a cam rake or trowel. Approximately 3/16" for a 1/4" finished floor after broadcasting 20/40 mesh silica sand or quartz aggregate.
10. Lay abutting edges within 10 minutes to ensure a clean edge. A "wet edge" installation is imperative during large placements to avoid lines and ridges in the finished floor.
11. Evenly apply to desired thickness while trying to keep cam rake lines to a minimum. Back-roll across slurry with spike roller to help settle aggregates and blend cam rake lines. Further roll with loop/texture roller perpendicular to cam rake lines over entire floor to even and settle slurry prior to broadcasting.
12. Broadcast to rejection specified broadcast media (aggregate or decorative flakes) onto the wet slurry. Do not broadcast onto the wet edge area until settling and back-rolling is complete. Continue broadcasting until no wet areas remain. Coverage rate for quartz or silica sand is approximately .75 lbs./sq. ft. Coverage rate for decorative flake is approximately 6 sq. ft./lb.
13. After curing (approximately 6-8 hours to withstand foot traffic), remove all excess broadcast media and scrape floor as required.
14. Apply specified topcoat to lock system and achieve desired slip resistance. For a nonskid texture, remove excess aggregate and apply specified topcoat at 12-16 mils. See system guide for topcoat options.

## TECHNICAL & SAFETY LITERATURE

To acquire additional information or technical and safety literature, please visit:

[www.simiron.com](http://www.simiron.com)

## LIMITED WARRANTY

SIMIRON warrants this product to be free from defect in the material that affects its performance for a period of 10 years (from date of purchase). SIMIRON will replace at no charge the quantity of the Coating that SIMIRON determines has failed to perform, as the sole and exclusive remedy for any breach of this warranty and/or any other defect or failure of the coating. Proof of purchase is required. Cost of labor for application of any product specifically is excluded.

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