SIMCRETE SL

PRODUCT DESCRIPTION

SIMIRON SIMCRETE SL is a self-leveling urethane cement. This heavy-duty seamless flooring system is typically installed at 1/8" and broadcast to rejection with silica sand or quartz to achieve 3/16" total thickness. **Simcrete SL** is an extremely durable flooring system that withstands thermal shock, impact, abrasive traffic and chemical exposure.

Simcrete SL 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. **Simcrete SL** is formulated with a natural additive to be resistant to Fungi Growth per the industry standard ASTM G21.

FEATURES AND BENEFITS

- Seamless, slip resistant finish
- Low odor, fast return-to-service
- Durable with chemical resistance
- Steam Cleanable
- Thermal Shock, High Temperature resistant
- Withstands temperatures down to -40˚
- Resistant to 12 lbs. moisture vapor transmission per ASTM 1869 or 85% RH per ASTM F2170
- Resistant to fungi growth per ASTM G21

RECOMMENDED USES

- Restore eroded concrete floors in tough environments
- Prep/Commercial Kitchens
- Food and Beverage Plants
- Meat and Poultry Plants
- Pharmaceutical / Chemical Processing
- Pulp and Paper Facilities
- Wet Processing and Packaging

PRODUCT INFORMATION

PRODUCT NAME	SIZE	ITEM NUMBER
Urethane Cement Part A (need 2 per 40-lb. bag SL filler)	0.5-Gallon	40007911
Urethane Cement Part B (need 2 per 40-lb. bag SL filler)	0.5-Gallon	40007928
Urethane Cement Part A	1-Gallon Pail	40013141
Urethane Cement Part B	1-Gallon Pail	40013158
Urethane Cement Part A	5-Gallon Pail	40007935
Urethane Cement Part B	5-Gallon Pail	40007942
Urethane Cement Part A	250-Gallon Tote	40008208
Urethane Cement Part B	250-Gallon Tote	40008215
SL Filler	20-lb. Bag	40008000
SL Filler (SLX2)	40-lb. Bag	40004743

A 20 lb. bag mix of Simcrete SL can be pigmented with 1/2 pint Simiron U-Tint in colors including: Haze Gray, Deck Gray, & Tile Red.

TECHNICAL DATA

PHYSICAL DATA	
Components	Three
Mix Ratio (by volume)	1/2 gal Part A + 1/2 gal Part B + 20 lb. Bag Filler + 1/2 pint U-Tint
Pot-Life	15 minutes @ 77° F
Solids by Volume	100%
VOC's	5 g/L
Application Temperature, Ambient	40 to 85°F
Application Temperature, Material	60 to 80°F

THEORETICAL COVERAGE

Coverage is 25 sq. ft. per unit at application thickness of 1/8".
Finished floor thickness of 3/16" after broadcast to rejection.

CURE TIMES @ 72°F (25°C) 50% RH *	
Light Foot Traffic	12 hours
Light Wheel Traffic	24 hours
Full Cure	7 Days

Tested at 72°F and 50% humidity. Cooler temperatures may slow down cure times. Higher temperatures and humidity may speed up cure time

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PHYSICAL PERFORMANCE PROPERTIES

PHYSICAL PROPERTIES	TEST METHOD	RESULTS
Bond Strength	ASTM D7234	100% Concrete Failure
Compressive Strength	ASTM C579	8,550 psi
Flammability		Self extinguising over concrete
Flexural Strength	ASTM C580	2,780 psi
Impact Resistance	ASTM D2794	> 160 in./lbs.
Resistance to Fungi Growth	ASTM G21	Passes, Rating of 1
Service Temperature		cycling down to -40˚, 190˚F continual
Tensile Strength	ASTM C307	1,120 psi

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 be cured for a minimum of 14 days and reach a minimum 3,500 psi compressive strength to reduce possible shrinkage cracking in the concrete and allow for proper surface preparation. However, early curing movement, shrinkage or cracking that may occur in the concrete will be reflected through the **Simcrete SL** 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 pull-off strength of at least 300 PSI per ASTM D4541.
5. Surface profile shall be CSP 3 - 5 meeting ICRI international Concrete Repair Institute) standard guideline #03732 for coating concrete, producing a profile equal to 40-grit sandpaper or coarser. Prepare surface by mechanical means to achieve this desired profile. It is difficult to achieve CSP 3-5 with a grinder. Shotblasting is preferred.
6. All concrete surface irregularities, cracks, expansion joints, control joints and terminations should be properly addressed and prepared prior to application of the flooring. 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. Moving joints and cracks may reflect through the installed **Simcrete SL** flooring.
7. Option: Use **Simcrete 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 **Simcrete SL** depending on the specification and or the desired result. **Simcrete CB** can be used to create a 45 degree cant cove as well.
8. 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 **Simcrete SL.**

SAFETY AND TECHNICAL

Refer to the SDS sheet before use. Safety precautions must be strictly followed during storage, handling, and use. Personal Protective Equipment (PPE) should be worn at all times. PPE will include (but is not limited to): Safety glasses with side shields and high-quality nitrile gloves. To acquire additional information or technical and safety data, please visit: www.simiron.com.

TEMPERATURE

Air	40° - 85°F	4° - 29°C
Surface	40° - 85°F	4° - 29°C
Material	60° – 85°F	16° - 27°C

Do not store material outdoors in a trailer or building that is not heated/air conditioned. Material that is cold will be difficult to work. Material at higher temperatures will have shorter pot-life and working time. Relative humidity must be less than 80%. DO NOT install unless the floor temperature is more than five degrees over the current dew point.

APPLICATION EQUIPMENT

Assemble all required application equipment. Equipment will include (but is not limited to):

- MAN-U-FAB M-61 (1 HP) mixer with a 10 gallon pail and TR4-10 mixing arm (www.mixall.com)
- Cam rake or trowel
- Spike roller
- Loop/Texture roller

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APPLICATION PROCEDURE

The following installation summary is for reference only and should only be installed by trained persons experienced in polyurethane concrete flooring applications.

1. Premix Part A containers with a drill mixer for 30 seconds before adding Parts B and C. The Part A emulsion will phase, so mixing to confirm no visual separation before splitting is required to ensure each mix has consistent Part A.
2. 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.
3. With the mixer running, pour 1/2 Gallon Part A into the pail.
4. If pigmenting, add **1/2 pint of U-Tint** to Part A and mix about 15 seconds.
5. Add 1/2 Gallon Part B and mix another 15 seconds.
6. Gradually add all contents of a 20-lb. **Simcrete SL** Filler bag into the liquid mixture and blend thoroughly until all particles are wetted out, normally about two minutes.
7. Immediately after mixing (within 3 minutes), spread the mixed **Simcrete SL** onto the floor at the desired thickness, using a cam rake or trowel. Approximately 1/8" for a 3/16" finished floor after broadcasting 20/40 mesh silica sand or quartz aggregate.
8. 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.
9. 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.
10. 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.
11. After curing (approximately 6-8 hours to withstand foot traffic), remove all excess broadcast media and scrape floor as required.
12. 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.

CLEAN UP AND DISPOSAL

Clean up mixing and application equipment immediately after use. Use toluene, acetone or xylene; do not use alcohol. Follow solvent manufacturer's safety instructions. Be sure to follow all local, state and federal regulations when disposing of materials.

MAINTENANCE

To maintain the appearance and extend the life of the newly sealed surface, it is imperative to have a routine maintenance program. Dirt and debris that is tracked over a finished floor will quickly scratch and dull the surface. Place walk-off mats at entrances. Sweep and mop/scrub floors regularly using soft bristles/pads and a mild cleaner. Some cleaning products and equipment or improper use of these can damage a surface. Remove spills quickly to minimize damage and/or stains. For systems that support parked vehicles or other heavy items on rubber wheels, place a small piece of nonporous material, such as sheet metal or plexiglass between the tires and floor to prevent tire marks. Reapplication may be necessary in heavy traffic areas.

LIMITATIONS

- Do not apply at a temperature below 40°F (10°C) or above 85°F (29°C).
- Do not delay in mixing and pouring mixed material onto the floor.
- Do not use partial bags or attempt to make a partial mix.
- 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.

SHELF LIFE AND STORAGE

12 months from date of manufacture when stored indoors in the original unopened container at 60°F – 85°F (16°C – 29°C) in a dry location with humidity below 65%.

- Do not allow materials to freeze.

TECHNICAL ASSISTANCE

Information is available by calling SIMIRON
Toll Free: **1.866.515.8775 / +1.248.686.3600**

LIMITED WARRANTY

SIMIRON warrants this product to be free from defect in the material that affects its performance for a period of one year (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. Warranty is void if Simiron products are mixed with or used in conjunction with materials that are substituted for Simiron products. Warranty is nontransferable.

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PRODUCT DATA SHEET: 10/1/2026

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