Shock-Crete® SL2

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Self-leveling cementitious urethane floor coating
Description	Self-leveling cementitious urethane flooring product (1/8-3/16″ / 3-5 mm). that allows moisture to move through the material at a safe rate and offers significant lifecycle cost savings compared to tile or acid brick. It contains Polygiene® which has antimicrobial properties that protect it, and the facility it is installed in, from degradation caused by microorganisms. It is a great solution for moderate thermal shock, mechanical damage, and chemical attack. Typically broadcast with flake, colored quartz, or sand as part of a decorative and robust flooring system.
Features	• Resistant up to 12 lbs of moisture vapor transmission per 1000 sq ft/ 24hrs • Excellent chemical resistance • High abrasion resistance • Resistant to thermal shock • Withstands mechanical stress • Easy to clean and sterilize surface • Resistant to steam cleaning • Positive slip resistance • May be applied to "green" concrete • Ultra low VOC/odor • Suitable for use in USDA inspected facilities • Can be use in decorative flake or quartz systems
Typical Uses	• General concrete restoration • Breweries and beverage plants • Food processing plants • Meat packaging plants • Automotive aisleways • Machine shops • Laboratories
Color	Stocked Colors: Red (Q501), Mid Gray (Q703), Cream (Q202), Dark Gray (Q704), Tan (Q204), Khaki (Q205), Green (Q302), and Safety Yellow (Q603), and Black (Q900).
Finish	Matte
Primer	Self Priming
Recommended Thickness	1/8"-3/16” (3-5 mm) *Typical thickness achieved after the addition of broadcast sand.
Coverage Rate	**Large Kit** 94 ft^2 at 3/32”(8.7 m^2 at 2.4 mm) 63 ft^2 at 1/8" (5.9 m^2 at 3.2 mm) **Tote Kit** 23,500 ft^2 at 3/32”(8.7 m^2 at 2.4 mm) 15,750 ft^2 at 1/8" (5.9 m^2 at 3.2 mm)
VOC Values	**As Supplied** : 0.04 lbs/gal (5 g/L)
Dry Temp. Resistance	Continuous: 180°F (82°C) Non-Continuous: 220°F (104°C)

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Limitations	Shock-Crete SL2 may change color over time depending on exposure to UV light and heat. This does not compromise the product's chemical resistance or physical characteristics.
Topcoats	Shock-Crete Topcoat, Shock-Crete TCUV, Sealer 985, Sealer 30 or as or as recommended by Dudick.

SUBSTRATES & SURFACE PREPARATION

Concrete	Concrete must be prepared mechanically to remove surface laitance. Oils, grease or other surface contaminants must be removed prior to surface preparation. Concrete must free of curing compounds and form release agents. Abrade the surface to achieve an ICRI CSP 3-5 surface profile. The prepared surface should have a nominal tensile strength of 250 PSI per ASTM D-7234. Anchor grooves or keyed joints, at least ¼" (0.64 cm) wide and ¼" (0.64 cm) deep, must be cut at terminations and transitions. All control joints must be honored. Anchor grooves or keyed joints must be cut at all transitions and terminations. These must be cut at least ¼" (0.64 cm) wide and ¼" (0.64 cm) deep. Filled joints and cracks in the concrete may be coated, but if movement occurs the coating will crack with the movement of the concrete. Concrete substrates must be checked for moisture prior to product application using the Plastic Sheet Test, ASTM D-4263. If moisture is found to be present contact Dudick for further recommendations

PERFORMANCE DATA

All test data was generated under laboratory conditions. Field testing results may vary.

Test Method	Results
Abrasion Resistance (ASTM D4060) CS 17 Wheel, 1000 cycles	50 mg loss
Adhesion (ASTM D4541)	400 psi (100% concrete failure)
Coefficient of Friction (ASTM D2047)	Exceeds ADA recommendations
Coefficient of Thermal Expansion (ASTM C531)	2.7×10^{-5} in/in/°F
Compressive Strength (ASTM C579)	>7,250 psi
Flexural Strength (ASTM C580)	2,900 psi
MVT Resistance (ASTM F1869)	12 lbs/1,000 ft^2/24hrs
Tensile Strength (ASTM C307)	1,740 psi

The figures and test results shown are typical properties achieved in laboratory tests at 68 °F (20 °C) and at 50% Relative Humidity.

MIXING & THINNING

Mixing	Pour component A into a suitably sized mixing vessel and add the pigment pack and mix using a slow speed drill and helical spinner for 20 seconds. Add component B. Mix for 30 seconds and then add the Shock-Crete SL2 aggregate while mixing. Ensure that all aggregate and resin have been scraped into the mix from the sides of the mixing vessel otherwise bubbles/blisters can develop in the applied floor. Continue mixing until a homogeneous mixture is obtained (1-2 minutes). Pour mixture directly onto the substrate so it can be placed without delay. Scrape out any residual material from the mixing vessel and dispose of, before starting the next mix. Working time of the following mix could be reduced if residue from the pervious mix is not removed. When possible, use common batch numbers for pigment packs on the same job help ensure color uniformity. Do not split batches/components. Incorrect mixing ratios or poor mixing can result in irregular hardening or variations in color, etc. There are often several types of products at a workplace. Sort and establish a mix an organized mixing station to avoid mistakes.
Thinning	For improved flow and leveling or when working in hot weather, a maximum of 4 fl.oz. of Thinner 45 (Mineral Spirits) can be added.
Working Time	15 minutes at 70 °F (21 °C)

APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

General	• ½”(1.27 cm) Notched Squeegee or a gauge rake/cam rake set to 1/8" or greater • Finishing and margin trowels • Short nap mohair, spiked, or loop rollers

APPLICATION PROCEDURES

General	Prior to starting the job, the product should be stored between 60-80 °F (16-27 °C) to ensure adequate mixing, flow, and penetration of the product.
Broadcast	Broadcast desired aggregate into wet material until rejection. After the coating is hard enough to walk on, remove excess aggregate and apply desired topcoat.

APPLICATION PROCEDURES

Application

Pour the material onto the substrate, using a cam rake, gauge rake, or notched squeegee, place it without delay.
Pull the tool (across the width of the area to applied) allowing the material achieve consistent coverage.
For small areas or under immovable equipment trowel placement may be used.
Further finishing can be done by lightly rolling the surface with a spiked or loops roller to even out the surface and reduce trowel marks.
Excessive rolling reduces texture and can lead to pin holes in the resin rich surface.
Finishing with a roller must be completed within 5 minutes after the material has been placed.
The roller should be replaced regularly (approx. every 500 sq.ft/ 46.5 sq.m) to prevent resin curing on the roller.

Maximum application width is determined by material and ambient temperature conditions, which affect the working life of the product and determines the speed of installation and man power required. As a guide (for substrate and material temperatures up to 70 °F / 21 °C) a competent team of 4-5, could lay a maximum bay width of 30 feet. At higher temperatures the bay width should be reduced by up to a half.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	60°F (16°C)	50°F (10°C)	40°F (4°C)	0%
Maximum	80°F (27°C)	90°F (32°C)	90°F (32°C)	95%

The temperature of the substrate should be at least 50 °F (10 °C), although a temperature of 60-80 °F (16-27 °C) is recommended.

CURING SCHEDULE

Surface Temp.	Light Traffic	Heavy Traffic	Final Cure
50°F (10°C)	14 Hours	36 Hours	7 Days
70°F (21°C)	8 Hours	16 Hours	5 Days
90°F (32°C)	5 Hours	10 Hours	2 Days

Do not attempt to store mixed material. Residual material should be properly disposed of at the end of each work period.

Recoat Time at 75°F, 50% RH
When using without Broadcast Sand:
3 hours minimum and 12 hours maximum when coating over with Shock-Crete products. Shock-Crete SL2 must be abraded prior to overcoating with polyaspartics, epoxies or urethanes.

When using Broadcast Sand:
3 hours minimum and no maximum when coating over it's self. 12 hours minimum and no maximum when overcoating with polyaspartics, epoxies or urethanes

At lower temperatures the hardening time is longer. It is important there are no dry patches. Shock-Crete SL2 should not be applied in thicker than specified.

CLEANUP & SAFETY

Cleanup | Clean tools immediately with Thinner S-10, 2, or 76.

CLEANUP & SAFETY

Safety	Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions. Use adequate ventilation. Keep container closed when not in use.

MAINTENANCE

General	Normal plant cleaning procedures may be employed after the Shock-Crete floor has been put in service. There are no effective restrictions on the method of cleaning employed. Shock-Crete products, when properly installed, will withstand water wash down at continuous sanitizing temperatures.

PACKAGING, HANDLING & STORAGE

Packaging	**Large Kit** Shock-Crete Part A - 1 x 1.20 gal (4.5 liters) Shock-Crete Part B - 1 x 0.98 gal (3.7 liters) Shock-Crete SL2 Filler - 1x 40 lb (18 kg) bag Pigment Pack - 1 x 1 lb (.45 kg) bag Yields approximately 3.95 mixed gallons **Tote Kit** Shock-Crete Part A - 1 x 300 gal (1135.6 liters) Shock-Crete Part B - 1 x 245 gal (927.4 liters) Shock-Crete SL2 Filler - 250 x 40 lb (18 kg) bags Pigment Pack - 250 x 1 lb (.45 kg) bags Yields approximately 987 mixed gallons
Shelf Life	12 months in unopened container
Storage Temperature & Humidity	50-90°F (10-32°C) Do not allow material to freeze.
Shipping Weight (Approximate)	Approx. 51.5 lbs (23.4 kg)
Flash Point (Setaflash)	Part A: >200 °F (93 °C) Part B: 351 °F (177 °C)

WARRANTY

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. Carboline warrants our products to be free of manufacturing defects in accord with applicable Carboline quality control procedures. THIS WARRANTY IS NOT VALID WHEN THE PRODUCT IS NOT: (1) APPLIED IN ACCORDANCE WITH CARBOLINE'S SPECIFICATIONS, AND/OR (2) PROPERLY STORED, CURED, AND USED UNDER NORMAL OPERATING CONDITIONS. Carboline assumes no responsibility for coverage, performance, injuries, or damages resulting from use of the product. If this product is found not to perform as specified upon inspection by a Carboline representative during the warranty period, Carboline's sole obligation, if any, is to replace the Carboline product(s) proven to be defective or refund the purchase price thereof, at Carboline's sole option. Carboline shall not be liable for any other losses or damages. This warranty excludes (1) labor and costs of labor for the application or removal of any product, and (2) any incidental or consequential damages, whether based on breach of express or implied warranty, negligence, strict liability or any other legal theory. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated. The whole text of this Product Data Sheet, as well as the documents derived from it, have been written in English, and for legal purposes the English version shall prevail.