

**SELECTION & SPECIFICATION DATA**

<b>Generic Type</b>	High performance cementitious urethane floor sealer
<b>Description</b>	Polyurethane coating used as a topcoat for cementitious urethane flooring systems. Excellent primer for cementitious urethane systems due to outstanding resistance to moisture vapor transmission. Contains Polygiene <sup>®</sup> which has antimicrobial properties that protect it from degradation caused by microorganisms.
<b>Features</b>	<ul style="list-style-type: none"> <li>• Excellent chemical resistance</li> <li>• High abrasion resistance</li> <li>• Resistant to thermal shock</li> <li>• Excellent resistance to MVT (moisture vapor transmission)</li> <li>• Easy to clean and sterilize</li> <li>• Resistant to steam cleaning</li> <li>• Withstands high mechanical stress</li> <li>• Ultra low VOC/odor</li> <li>• Suitable for use in USDA inspected facilities</li> </ul>
<b>Typical Uses</b>	Used as a topcoat for Shock-Crete systems while maintaining chemical resistance and durability.
<b>Color</b>	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).
<b>Finish</b>	Matte
<b>Recommended Thickness</b>	20-30 mils (.50-.75 mm)
<b>Coverage Rate</b>	<p><b>Small Kit</b> 80-120 sq.ft</p> <p><b>Large Kit</b> 160-240 sq.ft</p> <p><b>Tote Kit</b> 40,000-60,000 sq.ft</p>
<b>VOC Values</b>	As supplied 0.04 lbs/gal (5 g/L)
<b>Limitations</b>	Shock-Crete Topcoat 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.

# Shock-Crete<sup>®</sup> Topcoat

PRODUCT DATA SHEET



## SUBSTRATES & SURFACE PREPARATION

**Concrete** If applied directly to concrete, it must be prepared mechanically to remove surface laitance. Oils, grease or other surface contaminants must be removed prior to surface preparation. Concrete must be free of curing compounds and form release agents.  
Abrade the surface to achieve an ICRI CSP 2-4 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" (6 mm) wide and ¼" (6 mm) 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" (6 mm) wide and ¼" (6 mm) 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, 1,000 cycles	50 mg loss
Adhesion (ASTM D4541)	400 psi (2.8 MPa) 100% concrete failure
Coefficient of Friction (ASTM D2047)	Passes ADA recommendations
Coefficient of Thermal Expansion (ASTM C531)	$2.2 \times 10^{-5}$ in/in/°F
Compressive Strength (ASTM C579)	>7,250 psi (>50 MPa)
Flexural Strength (ASTM C580)	2,900 psi (20 MPa)
Impact Resistance	No visible damage or deterioration at minimum 160 in-lb
Modulus of Elasticity (ASTM C469)	$1.7 \times 10^5$
Tensile Strength (ASTM C307)	1,740 psi (12 MPa)
Water Absorption	<0.1%

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

## MIXING & THINNING

<b>Mixing</b>	<p>Pour component A into a suitably sized mixing container 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 TCUV 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 container 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.</p> <p>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 insufficient curing or variations in color, etc.</p>
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<b>Thinning</b>	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.
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<b>Working Time</b>	15 minutes at 70°F (21°C)
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## 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.

<b>General</b>	<ul style="list-style-type: none"> <li>• 1/8"-3/16" notched rubber squeegee</li> <li>• 3/8" nap, shed resistant roller</li> </ul>
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## APPLICATION PROCEDURES

<b>General</b>	<p>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.</p>
<b>Application</b>	<p>Pour the material onto the substrate, using a 1/8"-3/16" notched squeegee (or a squeegee designed to apply at 10-20 mils), 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 mohair or 3/8" 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 <u>must</u> 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.</p> <p>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.</p>

# Shock-Crete<sup>®</sup> Topcoat

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## APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	50°F (10°C)	50°F (10°C)	50°F (10°C)	20%
Maximum	90°F (32°C)	90°F (32°C)	90°F (32°C)	95%
Optimum	75°F (24°C)	75°F (24°C)	75°F (24°C)	50%

The temperature of the substrate should be at least 50°F (10°C), although a temperature of 65-80°F (16-27°C) is recommended. The temperature of the substrate should not exceed the dew point by more than 5°F (3°C) during application and hardening.

## CURING SCHEDULE

Surface Temp.	Light Traffic	Heavy Traffic	Final Cure
50°F (10°C)	36 Hours	72 Hours	10 Days
70°F (21°C)	24 Hours	48 Hours	7 Days
85°F (29°C)	12 Hours	24 Hours	5 Days

Complete hardening takes 5-7 days.

## TESTING / CERTIFICATION / LISTING

<b>General</b>	Dudick flooring systems can be built to meet or exceed the requirements of Static or Dynamic Coefficient of Friction testing per installation to meet static coefficient of friction requirements for ANSI B101.1 of >0.6 and dynamic coefficient of friction (DCOF)* – Wet ANSI A326.3 of >0.42.
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## CLEANUP & SAFETY

**Cleanup** | Clean tools immediately after use with acetone, MEK, or mineral spirits.

**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

<b>General</b>	Normal plant cleaning procedures may be employed after the Shock-Crete floor has been put into 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.
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**PACKAGING, HANDLING & STORAGE**

<b>Packaging</b>	<p><b>Small Kit:</b> Shock-Crete Part A - 0.59 gal/5lbs (2.2 liters/2.7 kg) Shock-Crete Part B - 0.48 gal/5lbs (1.8 liters/2.7 kg) Shock-Crete Topcoat Filler - 5.94 lb (2.7 kg) bag Pigment Pack - 1 x 1 lb (.45 kg) bag Yields approximately 1.3 mixed gallons</p> <p><b>Large Kit:</b> 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 Topcoat Filler - 2 x 5.94 lb (2.7 kg) bags Pigment Pack - 2 x 1 lb (.45 kg) bags Yields approximately 2.6 mixed gallons</p> <p><b>Tote Kit:</b> Shock-Crete Part A - 1 x 300 gal (1135.6 liters) Shock-Crete Part B - 1 x 245 gal (927.4 liters) Shock-Crete Topcoat Filler - 500 x 5.94 lb (2.7 kg) bags Pigment Pack - 500 x 1 lb (.45 kg) bags Yields approximately 650 mixed gallons</p>
<b>Shelf Life</b>	12 months in unopened container
<b>Storage Temperature &amp; Humidity</b>	50-90 °F (10-32 °C)  Do not freeze.
<b>Shipping Weight (Approximate)</b>	Small Kit Approx 18.5 lbs (8.4 kg) Large Kit Approx 37 lbs (16.8 kg) Tote Kit Approx 9,250 lbs (4196 kg)

**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 Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. 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.