

**SELECTION & SPECIFICATION DATA**

<b>Generic Type</b>	Cementitious urethane flooring mortar
<b>Description</b>	Highly functional trowel applied cementitious urethane mortar (1/4"-3/8" / 6-10mm). Contains Polygiene® which has antimicrobial properties that protect it from degradation caused by microorganisms. Demonstrates excellent resistance to thermal shock, mechanical damage, and chemical attack.
<b>Features</b>	<ul style="list-style-type: none"> <li>• Unaffected by MVT (moisture vapor transmission)</li> <li>• Excellent chemical resistance</li> <li>• High abrasion resistance</li> <li>• Resistant to thermal shock</li> <li>• Withstands mechanical stress</li> <li>• Easy to clean and sterilize surface</li> <li>• Resistant to steam cleaning</li> <li>• Positive slip resistance</li> <li>• May be applied to "green" concrete</li> <li>• Ultra low VOC/odor</li> <li>• Suitable for use in USDA inspected facilities</li> </ul>
<b>Typical Uses</b>	General Concrete Restoration Breweries and Beverage Plants Automotive Aisleways Food Processing Plants Meat Packaging Plants Loading Ramps Packing Plants Machine Shops Wet Wells
<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>Primer</b>	Self priming
<b>Recommended Thickness</b>	1/4-3/8" (6-10 mm)
<b>Coverage Rate</b>	<p><b>Small Kit</b></p> <p>24 sq ft (2.2 m<sup>2</sup>) at 1/4" (6 mm)</p> <p>17 sq ft (1.6 m<sup>2</sup>) at 3/8" (10 mm)</p> <p><b>Large Kit</b></p> <p>48 sq ft (4.5 m<sup>2</sup>) at 1/4" (6 mm)</p> <p>34 sq ft (3.2 m<sup>2</sup>) at 3/8" (10 mm)</p> <p><b>Tote Kit Kit</b></p> <p>12,000 sq ft (4.5 m<sup>2</sup>) at 1/4" (6 mm)</p> <p>8,500 sq ft (3.2 m<sup>2</sup>) at 3/8" (10 mm)</p>
<b>VOC Values</b>	As supplied 0.04 lbs/gal (5 g/L)
<b>Dry Temp. Resistance</b>	Continuous: 220°F (104°C) Non-Continuous: 250°F (121°C)
<b>Limitations</b>	Shock-Crete HF 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.

## 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 be free of curing compounds and form release agents.

Abrade the surface to achieve an ICRI CSP 4-6 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 1/4" (6 mm) wide and 1/4" (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 1/4" (6 mm) wide and 1/4" (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.

If mechanical preparation exposes honeycombs or voids beneath the surface, these can be filled with Scratch-Coat 300.

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 D 4060, CS 17 Wheel, 1000 cycles)	50 mg loss
Adhesion (ASTM D 4541)	400 PSI (2.8 MPa) 100% concrete failure
Coefficient of Friction (ASTM D 2047)	Exceeds ADA recommendations
Coefficient of Thermal Expansion (ASTM C 531)	1.1 x 10 <sup>-5</sup> in/in/°F
Compressive Strength (ASTM C 579)	8,000 PSI (55 MPa)
Flexural Strength (ASTM C 580)	2,900 PSI (20 MPa)
Tensile Strength (ASTM C307)	1,450 PSI (10 MPa)

The figures above 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 HF 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 previous 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.

## MIXING & THINNING

**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** |

- Finishing and margin trowels
- Screed box set between 5/16" and 7/16" thickness
- Short nap mohair or 3/8" 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.

Pour the material into a screed box that is set to a depth which is between 5/16-7/16" (8-11mm) directly onto the substrate.  
Pull the box slowly (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.

**Application** | Finishing with a roller must be completed within 5 minutes after the material has been placed.

The roller must 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 men could lay a maximum bay width of 30 feet (9 m). 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)	60°F (16°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 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.

# Shock-Crete<sup>®</sup> HF

PRODUCT DATA SHEET



## 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

At lower temperatures the hardening time is longer. It is important there are no dry patches. Complete hardening takes 5-7 days. Shock-Crete HF coating should not be applied in thicker than specified because the rate of cure can be affected.

## 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

**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

<b>Packaging</b>	<b>Small Kit</b> Shock-Crete Part A - 1 x 0.59 gal (2.2 liters) Shock-Crete Part B - 1 x 0.48 gal (1.8 liters) Shock-Crete HF Filler - 1 x 55 lb (25 kg) bag Pigment Pack - 1 x 1 lb (.45 kg) bag Yields approximately 3.8 mixed gallons
	<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 HF Filler - 2 x 55 lb (25 kg) bag Pigment Pack - 2 x 1 lb (.45 kg) bags Yields approximately 7.5 mixed gallons
	<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 HF Filler - 500 x 55 lb (25 kg) bag Pigment Pack - 500 x 1 lb (.45 kg) bag Yields approximately 1,875 mixed gallons
	<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. 67.5 lbs (31 kg) Large Kit - Approx. 125.5 lbs (57 kg) Tote Kit - Approx. 31,375 lbs (14,232 kg)

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## PACKAGING, HANDLING & STORAGE

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**Flash Point (Setaflash)** | Part A: >200 °F (93 °C)  
Part B: 351 °F (177 °C)

## WARRANTY

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