

SELECTION & SPECIFICATION DATA

Generic Type	Iron filled cementitious urethane mortar
Description	Exceptionally heavy duty, trowel applied cementitious urethane mortar (3/8"-1/2" / 10-13 mm). Contains Polygiene® which has antimicrobial properties that protect it from degradation caused by microorganisms. Demonstrates excellent resistance to mechanical damage, heavy machinery, thermal shock, and chemical attack.
Features	<ul style="list-style-type: none"> • Iron filled for ultra durability • Unaffected by MVT (moisture vapor transmission) • High abrasion resistance • Resistant to thermal shock • Withstands high mechanical stress • Capable of withstanding stress from heavy machinery • 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 facilities
Color	<p>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).</p> <p>General wear on lighter colors may be more visible. Shock-Crete is not color fast and may yellow over time. Color change depends on the UV light and heat levels present as such the rate of change cannot be predicted. This does not compromise the product's chemical resistance or physical characteristics.</p>
Finish	Matte
Primer	Does not normally require a primer.
Recommended Thickness	3/8-1/2" (10-13 mm)
Typical Uses	Ideal for situations where extra protection against wear and abrasion are needed.
Coverage Rate	<p>14 sq ft at 3/8" (1.3 m² at 10 mm)/ Small Kit 10 sq ft at 1/2" (0.9 m² at 13 mm)/ Small Kit</p> <p>28 sq ft/unit at 3/8" (2.6 m² at 10 mm)/ Large Kit 20 sq ft/unit at 1/2" (1.8 m² at 13mm)/ Large Kit</p>
VOC Values	As supplied 0.04 lbs/gal (5 g/L)
Dry Temp. Resistance	<p>Continuous: 220°F (104°C) Non-Continuous: 250°F (121°C)</p>
Limitations	Shock-Crete IF 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 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)	1.1x10 ⁻⁵ in/in/°F
Compressive Strength (ASTM C579)	8,000 psi
Flexural Strength (ASTM C580)	2,900 psi
Tensile Strength (ASTM C307)	1,450 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 Shock-Crete IF Filler while mixing. Ensure that all fillers and resins are 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). Before the next mix, scrape out any residual material from the mixing vessel and dispose of before starting the next mix; otherwise the working time of the following mix could be reduced.

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.

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 | <ul style="list-style-type: none"> • Finishing trowels • Screed box • Short nap mohair roller covers |
|----------------|---|

APPLICATION PROCEDURES

- | | |
|--------------------|---|
| General | <p>Prior to starting the job, the product should be stored in such a way that the temperature is the same as the room temperature where the product is to be applied, i.e. between 60-80 °F (16-27 °C). This improves the mixing, flow, penetration and hardening of the product.</p> |
| Application | <p>Pour the material into a screed box (laying box) that is set to a depth which is 1/16" greater than the required thickness. Pull the box slowly (across the width of the area to applied) allowing the material to flow from the bottom of the box and achieve consistent coverage. The surface can then be compacted and finished with a trowel.</p> <p>Alternatively, the mixed product can be poured out directly to the floor, spread to the desired thickness and finished with a trowel. Further finishing can be done by lightly rolling the surface with a mohair 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 as quickly as possible and within 5 minutes after the material has been applied. The roller head must 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 men could lay a maximum bay width of 30 feet. At higher temperatures the bay width should be reduced by up to a half.</p> |

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	50°F (10°C)	50°F (10°C)	60°F (16°C)	0%
Maximum	90°F (32°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.

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 IF coating should not be applied in thicker coats than specified because the cure (hardening) can be impaired.

CLEANUP & SAFETY

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

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	Small Kit Shock-Crete Part A - 0.59 gal (2.2 liters) Shock-Crete Part B - 0.48 gal (1.8 liters) Shock-Crete IF Filler C - 51 lb (23 kg) bag Pigment Pack
	Large Kit Shock-Crete Part A - 1.2 gal (4.5 liters) Shock-Crete Part B - 0.96 gal (3.6 liters) Shock-Crete IF Filler C - 2 x 51 lb (23 kg) bags Pigment Pack x 2
Shelf Life	12 months in unopened container
Storage Temperature & Humidity	50-90 °F (10-32 °C) Do not freeze
Shipping Weight (Approximate)	<u>Small Kit</u> Approx. 62.5 lb (28 kg) <u>Large Kit</u> Approx. 125 lb (57 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 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.