

## 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" / 0.64-0.95cm). Contains Polygiene <sup>®</sup> an antimicrobial additive based on silver ion nano technology. 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>• Non tainting, non dusting</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>Color</b>	Mid Gray (Q703), Dark Gray (Q704), Red (Q501), Green (Q302), Cream (Q202), Khaki (Q205), Black (Q900)
<b>Finish</b>	Matte
<b>Primer</b>	Primer is not normally required. Carbocrete FC or Carboseal 720 can be used for highly porous substrates.
<b>Typical Uses</b>	Ideal for wet processing zones such as food manufacturing, food preparation areas, and chemical processing plants.
<b>Recommended Thickness</b>	1/4-3/8"(0.63-0.95 cm)
<b>Coverage Rate</b>	24 sq ft (2.2 m <sup>2</sup> )/ single pack unit at 1/4" (0.64 cm) 17 sq ft (1.6 m <sup>2</sup> )/ single pack unit at 3/8" (0.95 cm)
<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>	Not resistant to ground water hydrostatic pressure.  Carbocrete 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 shall be designed, placed, cured, and prepared per NACE No. 6/SSPC-SP 13, latest edition. Concrete or screed substrate should be sound, free from laitance, dust, and other contamination with a minimum of 3,625 PSI compressive strength. The substrate should be dry and free from excess rising moisture. Abrade the surface to achieve an ICRI CSP 5-6 surface profile. Anchor grooves, at least ¼” (0.64 cm) wide and ¼” (0.64 cm) deep, must be cut at 6” (15.24cm) perimeter along all walls, edges, pillars, doors, drainage channels, grid drains and penetrative joints. All control joints must be honored. Anchor grooves must be cut on both sides of such joints. Welded joints and cracks in the concrete may be coated, but if movement occurs the coating will also crack. All residues must be removed to provide a dry, dust free open textured surface. The surface profile and levels should be appropriate for the system to be applied.

Contact Carboline for advice if there are impurities, such as oils, etc., in the concrete.

## PERFORMANCE DATA

Test Method	Results
Abrasion Resistance (ASTM D 4060, CS 17 Wheel, 1000 cycles)	50 mg loss
Adhesion (ASTM D 4541)	400 PSI 100% concrete failure
Coefficient of Friction (ASTM D 2047)	Exceeds ADA recommendations
Coefficient of Thermal Expansion (ASTM C 531)	1.1 x10 <sup>-5</sup> in/in/°F
Compressive Strength (ASTM C 579)	8,000 PSI
Flexural Strength (ASTM C 580)	2,900 PSI
Tensile Strength (ASTM C307)	1,450 PSI

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

## MIXING & THINNING

**Mixing**

Pour Carbocrete Base 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 Carbocrete Hardener B. Mix for 30 seconds and then add Carbocrete HF 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.

Use common batch numbers for pigment packs on the same job. This will help ensure color uniformity. Remember, never 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 the products separately to avoid mistakes. It is important that the material is kept warm, to maintain its fluidity. It is also necessary to warm up the filler component; otherwise it will act as a heat sink and cool down the mixture.

**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 trowels
- Screed box
- Short nap mohair roller covers

## APPLICATION PROCEDURES

**General** | 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.

**Application** | 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.  
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.

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.

## 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. Carbocrete HF 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.

**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 Carbocrete floor has been put in service. There are no effective restrictions on the method of cleaning employed. Carbocrete products, when properly installed, will withstand water wash down at continuous sanitizing temperatures.
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### PACKAGING, HANDLING & STORAGE

<b>Packaging</b>	<b>Single Pack</b> Carbocrete Base A - 0.59 gal (2.2 liters) Carbocrete Hardener B - 0.48 gal (1.8 liters) Carbocrete HF Filler C - 55 lb (25 kg) bag Pigment Pack
	<b>Double Pack</b> Carbocrete Base A - 1.20 gal (4.5 liters) Carbocrete Hardener B - 0.98 gal (3.7 liters) Carbocrete HF Filler C - 2 x 55 lb (25 kg) bag Pigment Pack x 2
<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>	Single Pack - Approx. 67.5 lbs (31 kg) Double Pack - Approx. 125.5 lbs (57 kg)
<b>Flash Point (Setaflash)</b>	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.