

## SELECTION & SPECIFICATION DATA

<b>Generic Type</b>	Fiber-reinforced repair mortar
<b>Description</b>	Carbocrete 4010 is a quick-setting, fiber reinforced, single component mortar formulated for vertical and overhead concrete repairs.
<b>Features</b>	<ul style="list-style-type: none"> <li>• Low Shrinkage</li> <li>• High Bond Strength</li> <li>• Excellent freeze-thaw resistance</li> <li>• Low permeability</li> <li>• Above and below grade applications</li> <li>• Quick recoat time (6 hours @ 70°F)</li> <li>• Certified by UL to meet the drinking water criteria of NSF 61</li> </ul>
<b>Typical Uses</b>	Repair manholes, wet-wells, pipelines, and other wastewater concrete structures
<b>Color</b>	Gray Newly applied material may be darker than existing concrete
<b>Primer</b>	Self-priming on concrete and masonry surfaces
<b>Application Thickness</b>	1/8" - 4" (3 to 100 mm) lifts for vertical surfaces 1/8" - 2" (3 to 50mm) lifts for overhead applications
<b>Theoretical Coverage Rates</b>	One bag (46 lbs) of Carbocrete 4010 will cover approximately 10.5 ft <sup>2</sup> (1.0 m <sup>2</sup> ) when applied at an average depth of 1/2" (13mm)
<b>VOC Value(s)</b>	7 g/l
<b>Limitations</b>	Not recommended for use under vehicular/fork lift traffic. Use of admixtures or aggregate extenders is not recommended.
<b>Topcoats</b>	Carbocrete 4010 may be top-coated with several different epoxy and polyurethane lining materials. Though not typical, it may also be a standalone product, depending on the intended service. Contact Technical Service for recommendations based on specific environments.

## SUBSTRATES & SURFACE PREPARATION

<b>General</b>	Surfaces must be clean. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the mortar.
<b>Concrete</b>	<p>Concrete shall be designed, placed, cured, and prepared per NACE No. 6/SSPC-SP 13. The PH of the concrete substrate must be a minimum of 8.5 prior to application. Substrate must be structurally sound and free of loose or deteriorated concrete. Mechanically abrade the surface to achieve a surface profile of CSP-5 or greater in accordance with ICRI Guidelines.</p> <p>Product can be profiled after minimum cure of 6 hours. Profiled area must be cleaned after preparation.</p> <p>Saturate surface to be repaired with clean water. Substrate must be saturated surface dry (SSD) prior to application.</p>

### MIXING & THINNING

**Mixing** | For optimal performance and application, condition the material to be between 65°F and 85°F (18°C to 29°C) at least 24 hours prior to use. Single bags may be mixed by a standard Jiffy-type mixer. Use of a heavy-duty drill or paddle type mortar mixer for large jobs is recommended. Add 0.9 to 1.0 gallons (3.4 to 3.79 L) of clean, potable water into a clean mixing vessel, then add the dry product. Mix for 3-5 minutes until uniform.

**Working Time** | 15 minutes at 75°F  
Do not mix more material than can be applied within 15 minutes.

### APPLICATION PROCEDURES

**General** | **Scrub Coat:** A scrub coat of Carbocrete 4010 must be used for bonding. This is best achieved by using a rubber float, sponge, brush, or other means to push the Carbocrete 4010 into the substrate to ensure adequate adhesion and prevent sagging. If the final set time of the scrub coat is exceeded before the lift coat can be applied, prepare the surface in accordance with the Concrete Surface Preparation requirements above.

**Mortar Lifts:** Apply in 1/8" to 4" (3 to 100 mm) lifts for vertical surfaces and 1/8" to 2" (3 to 50 mm) lifts for overhead applications. Trowel product into place and allow it to reach final set before applying the next lift. A subsequent lift(s) may be required to create surface uniformity. If additional lifts will be required after the initial lift, the surface of the placed mortar must be scored before it reaches final set.

**Finishing** | Finish the Carbocrete 4010 to the desired texture. Do not add additional water to the surface during the finishing operation.  
Once the repair mortar has reached the minimum cure, the substrate must be mechanically abraded to create the profile recommended by the product data sheet of the accompanying coating.

### APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	65°F (18°C)	45°F (7°C)	45°F (7°C)	0%
Maximum	85°F (29°C)	90°F (32°C)	90°F (32°C)	95%

### CURING SCHEDULE

**Curing Details** | Initial Set Time: ~20 minutes  
Final Set Time: ~30 minutes  
Apply coatings after 6 hours at 70°F (21°C)  
Curing times will be longer in cooler temperatures.  
Maintain 45°F substrate temperature or above for 72 hours.

### CLEANUP & SAFETY

**Cleanup** | Clean tools and equipment with water before the material hardens.

**Safety** | Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions.



## **PACKAGING, HANDLING & STORAGE**

---

**Packaging** | 46 lbs (20.8 kg) unit

**Shelf Life** | 12 months in original, unopened package

**Shipping Weight  
(Approximate)** | Approx. 46 lbs (20.8 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.