ANCHORING CEMENT – EXTERIOR USE
PRODUCT NO. 1245-81

PRODUCT DESCRIPTION
QUIKRETE® Anchoring Cement – Exterior Use is a rapid-setting, high strength, shrinkage compensated, commercial grade construction product suitable for use in continuously wet environments.

PRODUCT USE
QUIKRETE® Anchoring Cement – Exterior Use expands slightly as it hardens, to fill voids and lock itself securely into place. This product is suitable for use with appliances, bolts, motors, posts, hooks, handrails, conveyors, pipes and conduits. Also may be used for fences, parking meters, columns, ornamental iron work, seats, signs, rods, racks, and door stops.

SIZES
• QUIKRETE® Anchoring Cement – Exterior Use is available in:
  6 lb (2.7 kg) pails
  10 lb (4.5 kg) pails
  50 lb (22.7 kg) pails

YIELD
• Each 50 lb (22.7 kg) pail of QUIKRETE® Anchoring Cement – Exterior Use will yield approximately 0.42 cu ft (12 L).

TECHNICAL DATA
APPLICABLE STANDARDS
ASTM International
• ASTM C191 Standard Test Methods for Time of Setting of Hydraulic Cement by Vicat Needle
• ASTM E488 Standard Test Methods for Strength of Anchors in Concrete and Masonry Elements

APPROVALS
QUIKRETE® Anchoring Cement - Exterior Use is suitable for a wide range of construction applications. Consult manufacturer for current information on specific agency or code approvals.

PHYSICAL/CHEMICAL PROPERTIES
Typical results obtained with QUIKRETE® Anchoring Cement - Exterior Use, when tested in accordance with applicable standards, are shown in Table 1. Test reports are available to qualified design professionals upon request.

FIRE RATING
Contains no combustible materials.

TABLE 1 TYPICAL PHYSICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting time, ASTM C191</td>
<td>10 - 30 minutes, final set</td>
</tr>
<tr>
<td>Compressive strength, ASTM C109</td>
<td>2000 psi (13.8 MPa) @ 2 hours</td>
</tr>
<tr>
<td></td>
<td>4000 psi (27.6 MPa) @ 24 hours</td>
</tr>
<tr>
<td></td>
<td>6000 psi (41.4 MPa) @ 7 days</td>
</tr>
<tr>
<td></td>
<td>7000 psi (48.3 MPa) @ 28 days</td>
</tr>
<tr>
<td>Pull-out strength, ASTM E488₁</td>
<td>14,100 lb-force (6395 kg-force) @ 24 hours</td>
</tr>
<tr>
<td></td>
<td>21,000 lb-force (9525 kg-force) @ 28 days</td>
</tr>
</tbody>
</table>

₁Tested with a 1/2” (12.7 mm) diameter threaded bolt embedded to a depth of 8” (203 mm) in a 2” (51 mm) diameter hole which was bored in concrete with a compressive strength of approximately 4000 psi (27.6 MPa).

INSTALLATION

SURFACE PREPARATION
• Handle and store QUIKRETE® Anchoring Cement - Exterior Use according to QUIKRETE® recommendations and label directions
• Use a masonry core drill or chisel to create a hole in the concrete
• Hole should be at least 1" (25.4 mm) larger than the size of bolt or railing. Hole should be at least 2" - 4" (51 - 102 mm) deep. Increasing embedment depth will increase pullout strength
• Remove all loose concrete and debris from hole
• Dampen hole prior to pouring QUIKRETE® Anchoring Cement, but do not leave standing water in bottom of hole

METHODS
• Use clean container and clean water
• Mix by combining approximately 5 parts QUIKRETE® Anchoring Cement - Exterior Use with 1 part water for a pourable mixture
• Pour powder into water and mix vigorously
• Reducing amount of water will yield a putty-like consistency for vertical applications
• Pour mixed material into hole or void to slightly above floor level
• Hold bolt or post in place until material begins to stiffen
Note - No special curing is required.

PRECAUTIONS
• Mix only enough QUIKRETE® Anchoring Cement - Exterior Use to be used within 10 minutes
• Some dusting may occur during mixing process. Fresh cement mixtures may be irritating to skin. Wash skin exposed to fresh cement with clean water. Consult Material Safety Data Sheet (MSDS). Wear eye protection and appropriate safety equipment and clothing.

WARRANTY
The QUIKRETE® Companies warrant this product to be of merchantable quality when used or applied in accordance with the instructions herein. The product is not warranted as suitable for any purpose or use other than the general purpose for which it is intended. Liability under this warranty is limited to the replacement of its product (as purchased) found to be defective, or at the shipping companies’ option, to refund the purchase price. In the event of a claim under this warranty, notice must be given to The QUIKRETE® Companies in writing. This limited warranty is issued and accepted in lieu of all other express warranties and expressly excludes liability for consequential damages.

The QUIKRETE® Companies
One Securities Centre
3490 Piedmont Rd., NE, Suite 1300, Atlanta, GA 30305
(404) 634-9100 • Fax: (404) 842-1425

* Refer to www.quikrete.com for the most current technical data, MSDS, and guide specifications