

QUICK-SETTING CEMENT

PRODUCT No. 1240-11, -20, -50

DIVISION 3

03 01 00 Maintenance of Concrete

PRODUCT DESCRIPTION

QUIKRETE® Quick-Setting Cement is a portland cement-based product specially formulated for making structural repairs to vertical and horizontal surfaces.

PRODUCT USE

QUIKRETE® Quick-Setting Cement can be used anywhere that rapid setting is necessary, as it sets hard in approximately 15 to 30 minutes. Its unique properties allow the user to sculpt the material as it begins to harden. Quick-Setting Cement is used to repair:

- Concrete pipes, sewers, and culverts
- Floors, steps, and curbs
- Bridges and pavement
- Cold storage vaults and freezers
- Pre-stress panels
- Loading docks and tunnels
- Retaining walls
- Catch basins and septic tanks

SIZES

QUIKRETE® Quick-Setting Cement is available in:

- 50 lb (22.6 kg) bags or pails
- 20 lb (9 kg) pails
- 10 lb (4.5 kg) pails

YIELD

Each 50 lb (22.6 kg) bag/pail of QUIKRETE® Quick-Setting Cement will yield 0.45 cu ft (12.7 L) of material. Each 20 lb (9 kg) pail of QUIKRETE® Quick-Setting Cement will yield 0.18 ft³ (5.1 L) of material. Each 10 lb (4.5 kg) pail of QUIKRETE® Quick-Setting Cement will yield 0.09 ft³ (2.5 L) of material.

TECHNICAL DATA

APPLICABLE STANDARDS

- ASTM C109 Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)
- ASTM C191 Standard Test Method for Time of Setting of Hydraulic Cement by Vicat Needle
- ASTM C666 Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing
- ASTM C1583 Standard Test Method for Tensile Strength of Concrete Surfaces and the Bond Strength or Tensile Strength of Concrete Repair and Overlay Materials by Direct Tension (Pull-off Method)

PHYSICAL/CHEMICAL

Typical results obtained with QUIKRETE® Quick-Setting Cement when tested in accordance with the applicable ASTM standards are shown in Table 1. Additionally, QUIKRETE® Quick-Setting Cement can be built up to a thickness of 1 in to 2 in (25 mm to 50 mm) without sag on vertical surfaces.



INSTALLATION

SURFACE PREPARATION

The surface to be repaired should be free of all foreign matter and loose materials. The bond will be enhanced if all smooth surfaces are roughened or etched. Bonding can be further enhanced if QUIKRETE® Concrete Acrylic Fortifier (No. 8610) or QUIKRETE® Concrete Bonding Adhesive (No. 9902) are utilized. If the application thickness is less than 1 in (25 mm) then QUIKRETE® Concrete Acrylic Fortifier should be used with QUIKRETE® Quick-Setting Cement. Prior to application of the material the repair area should be wet, without standing water. If the application is greater than 1 in (25 mm) in thickness, then QUIKRETE® Concrete Bonding Adhesive should be utilized. When using the QUIKRETE® Concrete Bonding Adhesive, the step of wetting the repair area prior to the application of the QUIKRETE® Quick-Setting Cement, should not be completed.

MIXING

See Table 2 for typical water content. Reducing the water will decrease the set time. Add only enough water to get the proper consistency. Excessive amounts of water may cause a reduction in performance of the product. When using QUIKRETE® Concrete Acrylic Fortifier, replace half of the mixing water with QUIKRETE® Concrete Acrylic Fortifier. Where large quantities of material may be used for deep patching, QUIKRETE® Quick-Setting Cement can be extended with up to 25 lb (11.3 kg) of 3/8 in (9.5 mm) maximum size aggregate per 50 lb (22.6 kg) bag. The coarse aggregate should be good quality and in a damp condition.

APPLICATION

Fill the repair area completely working continuously from one end to the other. Avoid partial depth fills which could lead to cold joints. Consolidate the material using hand tamping and/or chopping with a trowel. It is particularly important to compact around the edges of the forms or patches.

After QUIKRETE® Quick-Setting Cement has been compacted and spread to completely fill the forms without air pockets, screed the surface and then apply a trowel finish as desired. After initial set, the material may be trimmed and shaped to match the existing contours of the patch area.

CURING

Efficient damp curing is required for at least 48 hours.

PRECAUTIONS

- Mix no more than can be used in approximately 10 minutes.
- During periods when temperatures are near 40 °F (4 °C) or lower, precautions must be taken to prevent freezing. An example of this would be the use of warm water and insulation applied to protect the QUIKRETE® Quick-Setting Cement after placing. Hot weather conditions require the use of cool water for mixing to prevent rapid drying / hardening.
- Do not use QUIKRETE® Concrete Acrylic Fortifier and QUIKRETE® Concrete Bonding Adhesive in combination.

SAFETY

IMPORTANT: Read Safety Data Sheet carefully before using. **WEAR IMPERVIOUS GLOVES**, such as nitrile, mask, and eye protection.

DANGER: Causes severe skin burns and serious eye damage. Prolonged or repeated inhalation of dust may cause lung damage or cancer.

Keep out of reach of children

WARRANTY

NOTICE: Obtain the applicable **LIMITED WARRANTY** at www.quikrete.com/product-warranty or send a written request to The Quikrete Companies, LLC, Five Concourse Parkway, Atlanta, GA 30328, USA. Manufactured by or under the authority of The Quikrete Companies, LLC. © 2022 Quikrete International, Inc.

TABLE 1 TYPICAL PHYSICAL PROPERTIES

Setting Time, ASTM C191	
Initial	About 10 minutes
Final	15 to 30 minutes
Compressive Strength, ASTM C109 (Modified)	
Age	PSI (MPa)
1 day	3000 (20.6)
7 days	4000 (27.5)
14 days	5000 (34.4)
28 days	6000 (41.3)
Freeze Thaw Resistance, ASTM C666	
After 300 cycles	≥ 95% Durability Factor
Tensile Strength by Direct Tension (Pull Off Method), ASTM C1583	
Age	PSI (MPa)
28 days	≥ 250 (1.7)

TABLE 2 TYPICAL WATER CONTENT

Product by Volume	Water	Material
Minimum	1	5-1/2 parts
Maximum	1	3-1/2 parts
Product by Weight		
Minimum	6-3/4 pt (3.2 L)	50 lb (22.6 kg)
Maximum	8-1/4 pt (3.9 L)	50 lb (22.6 kg)