



# POLYMER MODIFIED STRUCTURAL REPAIR

PRODUCT NO. 1241-25

## DIVISION 3

Maintenance of Concrete  
03 01 00  
Structural Concrete  
03 31 00

### PRODUCT DESCRIPTION

QUIKRETE® Polymer Modified Structural Repair is a polymer modified and shrinkage-compensated rapid setting, high strength repair material designed for vertical and horizontal structural concrete repairs.

### PRODUCT USE

QUIKRETE® Commercial Grade Polymer Modified Structural Repair consists of special fast-setting hydraulic cement, graded sands and other proprietary ingredients. This product is designed to be used for partial-depth repairs and can be sculpted to match the contour of existing concrete surfaces. For full-depth repairs, the product should be expanded with up to 10 lb (4.5 kg) of gravel.

### SIZE

QUIKRETE® Polymer Modified Structural Repair - 20 lb (9.1 kg) pails

### YIELD

A 20 lb (9.1 kg) bag of QUIKRETE® Polymer Modified Structural Repair will yield approximately 0.17 cu ft (4.8 L) of material.

### TECHNICAL DATA

#### APPLICABLE STANDARDS

ASTM International

- ASTM C109/C109M Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)

#### PHYSICAL/CHEMICAL PROPERTIES

QUIKRETE® Polymer Modified Structural Repair®, when tested in accordance with ASTM procedures, provides typical results as listed in Table 1.

TABLE 1

#### Typical Compressive Strength (ASTM C109 Modified)

3 Hours	2,500 psi (17.2 MPa)
24 Hours	4,000 psi (27.5 MPa)
7 Days	5,500 psi (37.9 Mpa)
28 Days	6,500 psi (44.8 Mpa)



### INSTALLATION

#### SURFACE PREPARATION

- Remove all spalled and unsound concrete from area to be repaired.
- If rusty reinforcing steel is present, it must be abrasive blasted to remove rust. Wear proper personal protective equipment. Remove enough material to completely expose the reinforcing steel.
- Large vertical patches deeper than 2 in (50 mm) should contain reinforcing steel. If none is present, new steel should be inserted using appropriate techniques.
- Dampen with clean water and remove standing water before patching.

#### MIXING

1. **WEAR IMPERVIOUS GLOVES, such as nitrile.** Mix by hand or mechanically for a minimum of 3 minutes using a standard mortar mixer.
2. Add 3 pt (1.4 L) of clean water for each 20 lb (9.1 kg) pail. Add the powder to the water and mix to a stiff gel-like consistency. If mix is too thick, add water sparingly to reach the desired consistency. Do not mix more material that can be placed in 15 minutes.
3. If the Structural Repair is to be used as a repair material for repairs deeper than 2 in (50 mm), up to 10 lb (4.5 kg) of clean, high quality -1/2 in (-13 mm) gravel may be added to mix.
4. QUIKRETE® Polymer Modified Structural Repair obtains high bond strength without the use of bonding adhesives or acrylic additives.
5. Do not re-temper with additional water.

#### PLACING

- Do not apply as a coating. Use for patches less than 2 ft<sup>2</sup> (0.19 m<sup>2</sup>).
- QUIKRETE® Polymer Modified Structural Repair should be trowel applied to a damp surface.

- Apply a thin layer with heavy trowel pressure and then go back and build up to the desired thickness.
- After initial set, the material may be trimmed and shaped to match the contours of the existing patch area.

#### **CURING**

No special curing procedures are required under normal conditions. In hot, dry or windy conditions keep the patch covered and damp for at least 24 hours, or apply QUIKRETE® Acrylic Concrete Cure and Seal (No. 87300) in accordance with package instructions.

#### **AGGREGATE EXTENSION**

For deep patches, QUIKRETE® Polymer Modified Structural Repair may be extended 50% with up to 10 lb (4.5 kg) of minus ½ in (13 mm) coarse aggregate per 20 lb (9.1 kg) pail. Use well graded, good quality coarse aggregate, minus ½ in (13 mm) diameter, meeting ASTM C33. When extended 100% with this coarse aggregate, each 40 lb (18.2 kg) of 50/50 blend will yield approximately 0.73 cubic feet (20.6 L). Extension by 50% will affect set time and reduce compressive strengths compared to data presented in Table 1. Performance and yield will be affected by the characteristics of the coarse aggregate utilized and water addition. Adjust water to achieve a slump of about 3 in to 5 in (75 to 125 mm).

#### **PRECAUTIONS**

Do not use if temperatures are below 40 °F ( 4 °C ) or are expected to go below 32 °F ( 0 °C ) within a 24 hour period. Use cold water in hot weather or hot water in cold weather to achieve desired product temperature.

#### **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.

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*\* Refer to [www.quikrete.com](http://www.quikrete.com) for the most current technical data, SDS, and guide specifications*