

FASTSET™ REPAIR MORTAR

PRODUCT No. 1241

DIVISION 3

Maintenance of Concrete
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PRODUCT DESCRIPTION

FastSet™ Repair Mortar is a rapid setting repair material specially formulated to make structural repairs to any concrete or masonry surface.



PRODUCT USE

FastSet™ Repair Mortar provides low sag making it ideal for vertical or overhead repairs and is available with integral corrosion inhibitor in cases where maximum corrosion protection is desired. The addition of corrosion inhibitor has no adverse effect on the other physical properties of the product.

Its unique properties allow the user to actually sculpt the material during application. Use to repair concrete cracks, curbs, steps, prestress panels, pipe, tunnels, sewers, loading docks, silos, retaining walls, culverts, catch basins, decorative moldings, bridge columns, parapet walls, septic tanks, cold storage vaults, virtually any vertical or overhead concrete surface.

SIZES

- 55 lb (25 kg) bags
- 20 lb (9.1 kg) pails

YIELD

A 55 lb (25 kg) bag of FastSet™ Repair Mortar will yield 0.50 cu ft (15 L) of material. The 55 lb. (25 kg) bag of FastSet™ Repair Mortar can be extended with up to 27.5 lb (12.5 kg) of -1/2" (-12.7 mm) maximum size aggregate for deep repairs.

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)
- ASTM C157/C157M Standard Test Method for Length Change of Hardened Hydraulic Cement Mortar and Concrete
- ASTM C191 Standard Test Method for Time of Setting of Hydraulic Cement by Vicat Needle
- ASTM C882 Standard Test Method for Bond Strength of Epoxy-Resin Systems Used With Concrete By Slant Shear
- ASTM C928 Standard Specification for Packaged, Dry, Rapid-Cementitious Materials for Concrete

PHYSICAL/CHEMICAL PROPERTIES

Typical test results for FastSet™ Repair Mortar, when tested in accordance applicable ASTM Test Methods, are in Table 1. Product meets the requirements ASTM C928 Type R2 with reduced flow for vertical and overhead applications.

**TABLE 1 - FASTSET™ REPAIR MORTAR
TYPICAL PHYSICAL PROPERTIES**

Setting Time, ASTM C191

Initial	Approx. 20 min.
Final	20 – 40 min.

Approx. water content 5 qt (4.7 L) per 55 lb (25 kg) bag

Consistency	Gel-like
Unit weight, lb/cu ft (Kg/m ²)	128 (2051)

Compressive strength, ASTM C109 modified

3 hours	2,000 psi (13.8 MPa)
24 hours	4,000 psi (27.6 MPa)
7 days	5,000 psi (34.5 MPa)
28 days	6,000 psi (41.4 MPa)

Slant Shear, ASTM C882 modified

24 hours	1,000 psi (6.9 MPa)
7 days	1,500 psi (10.3 MPa)
28 days	2,500 psi (17.2 MPa)

Length change, ASTM C157

28 days, air	-0.1%
28 days, water	+0.1%

*Application to overhead surfaces can be built up to at least 1 1/2" (38 mm) in 1 application.

INSTALLATION

PREPARATORY WORK

- Remove all spalled areas, as well as areas of unsound concrete and previous patching materials
- Holes should be chipped out to create a new sound substrate
- If rusty reinforcing steel is present, it must be abrasive blasted to remove rust. In many cases, it will be best to remove enough material to completely expose the reinforcing steel
- Large vertical or overhead patches deeper than 2" (51 mm) should contain reinforcing steel. If none is present, new steel should be inserted using appropriate techniques
- Holes should be dampened with clean water before patching. No puddles of water should be left in the hole

MIXING

- Add approximately 5 qt (4.7 L) of water to the mixer for each 55 lb (25 kg) bag of FastSet™ Repair Mortar being mixed
- Add the product and mix for approximately 3 minutes. Adjust water as needed to achieve a stiff gel-like consistency
- Where large quantities of material are used for patches deeper than 2" (51 mm), FastSet™ Repair Mortar may be extended with 27.5 lbs (12.5 kg) of -1/2" (-12.7 mm) aggregate per 55 lb (25 kg) bag. This will require approximately 5.5 qt (5.2 L) of water depending on the dampness of the aggregate

APPLICATION

FastSet™ Repair Mortar should be trowel applied to the damp surface. Apply a thin layer with heavy trowel pressure, and then go back and build up to the desired thickness. FastSet™ Repair Mortar obtains high bond strength without the use of bonding adhesives or acrylic additives. After initial set, the material may be trimmed and shaped to match the existing contours of the patch area.

CURING

During the first 24 hours, it is best to keep the patch covered or damp to prevent excessive loss of water. Under hot, dry and windy placing conditions, all concrete tends to lose moisture unevenly and may develop plastic shrinkage cracks. The use of sheeting, monomolecular films (either sprayed or rolled on), as well as application of a very fine fog spray of water, has been quite successful in arresting shrinkage cracking.

PRECAUTIONS

- Do not apply when temperatures are below 40 degrees F (4 degrees C) or are expected to drop below 32 degrees F (0 degrees C) within 24 hours
- In hot weather, use cool mixing water to lengthen setting time
- Mix no more material than can be used in 15 minutes
- Do not retemper with additional water

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.

MAINTENANCE

None required.

TECHNICAL SERVICES

The QUIKRETE® Companies maintain technical field representatives throughout the country.

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