



COMMERCIAL GRADE FASTSET™ REPAIR MORTAR

PRODUCT No. 1241-60, -50, -20

DIVISION 3

03 01 00 Maintenance of Concrete
03 31 00 Structural Concrete

PRODUCT DESCRIPTION

QUIKRETE Commercial Grade FastSet® Repair Mortar is a polymer modified, rapid setting repair material specially formulated to make structural repairs to any concrete or masonry surface. Exceeds the requirements of ASTM C928 R2.

PRODUCT USE

QUIKRETE Commercial Grade FastSet® Repair Mortar demonstrates low sag, making it ideal for vertical or overhead repairs. QUIKRETE Commercial Grade FastSet® Repair Mortar 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. This product can be built up to at least 1-1/2 in (38 mm) in one application. Its unique properties allow the user to sculpt the material during application. Use to repair concrete cracks, curbs, steps, pre-stressed 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

QUIKRETE Commercial Grade FastSet® Repair Mortar is available in:

- 60 lb (27.2 kg) bags
- 50 lb (22.6 kg) pails
- 20 lb (9 kg) pails

YIELD

- Each 60 lb (27.2 kg) bag of QUIKRETE Commercial Grade FastSet® Repair Mortar will yield approximately 0.54 ft³ (15.4 L) of material.
- Each 50 lb (22.6 kg) pail of QUIKRETE Commercial Grade FastSet® Repair Mortar will yield approximately 0.45 ft³ (12.7 L) of material.
- Each 20 lb (9 kg) pail of QUIKRETE Commercial Grade FastSet® Repair Mortar will yield approximately 0.18 ft³ (5.0 L) of material.

TECHNICAL DATA

APPLICABLE STANDARDS

- ASTM C33 Standard Specification for Concrete Aggregates
- ASTM C109 Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2 in. or [50-mm] Cube Specimens)
- ASTM C157 Standard Test Method for Length Change of Hardened Hydraulic-Cement, Mortar, and Concrete
- ASTM C191 Standard Test Methods 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 C672 Standard Test Method for Scaling Resistance of Concrete Surfaces Exposed to Deicing Chemicals



- 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-Hardening Cementitious Materials for Concrete
- ASTM C1437 Standard Test Method for Flow of Hydraulic Cement Mortar
- 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)
- ICRI Guideline No. 310.2R Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair
- ACI 305R Guide to Hot Weather Concreting
- ACI 306R Guide to Cold Weather Concreting

PHYSICAL/CHEMICAL

Typical results obtained for QUIKRETE Commercial Grade FastSet® Repair Mortar, when tested in accordance with the referenced ASTM test methods, are shown in Table 2.

INSTALLATION

SURFACE PREPARATION

All surfaces should be clean and free of foreign substances including corrosion present on reinforcing steel. Remove all spalled areas and areas of unsound concrete. The appropriate personal protective equipment should be worn. Large vertical or overhead patches deeper than 2 in (50 mm) should contain reinforcing steel. If none is present, new steel should be inserted using appropriate techniques. Preparation work done on the repair area should be completed by high pressure water blast, breaker hammer, or other appropriate mechanical means to obtain an exposed aggregate surface. Refer to current ICRI Guideline 310.2R for additional surface preparation information. Saturate repair area with clean water before patching to ensure SSD condition. No standing water should be left in the repair area.

MIXING

Refer to Table 1 for water quantities. Begin by using a mid-range water quantity, then adjust, if needed, to achieve a placeable, gel-like

consistency. The water demand of the product may vary based upon environmental conditions. Starting with the maximum quantity of water is not recommended. Add the water to the mixer or mixing container first, followed by the QUIKRETE Commercial Grade FastSet® Repair Mortar. Mix by hand, or mechanically using a standard mortar mixer, for a minimum of 3 minutes. Adding excessive water that causes a flowable consistency that exceeds an ASTM C1437 flow of 100% is not recommended. This may cause a reduction in performance of the product. Where large quantities of material are needed for patches deeper than 2 in (50 mm) QUIKRETE Commercial Grade FastSet® Repair Mortar may be extended with 30 lb (13.6 kg) of -1/2 in (-13 mm) aggregate per 60 lb (27.2 kg) bag. The coarse aggregate used should be in SSD condition and meet ASTM C33 requirements. Adjust water, if needed, to achieve a placeable consistency. Exceeding an ASTM C143 slump of 5 inches (125 mm) is not recommended. This may cause a reduction in performance of the product.

TABLE 1 TYPICAL WATER CONTENT

Amount of Material	Minimum	Maximum
20 lb (9 kg)	3 pt (1.4 L)	3-1/4 pt (1.5 L)
50 lb (22.6 kg)	7-1/2 pt (3.5 L)	8 pt (3.8 L)
60 lb (27.2 kg)	9 pt (4.3 L)	9-3/4 pt (4.6 L)

APPLICATION

QUIKRETE Commercial Grade 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. QUIKRETE Commercial Grade 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. Curing compounds such as QUIKRETE® Acrylic Concrete Cure and Seal (No. 8730) provide the easiest and most convenient method of curing. Curing compounds should be applied via appropriate methods, once final set has been reached.

PRECAUTIONS

- Mix no more than can be used in 15 minutes. Section off work into areas that can be completed in 15 minutes.
- Do not apply as a coating
- Follow ACI 305R when using product in hot weather. An example of an additional step would be using cold water when mixing in extremely hot weather.
- Follow ACI 306R when using product in cold weather. Examples of additional steps would be using hot water when mixing in severely cold weather and using plastic sheeting and insulation blankets if temperatures are expected to fall below 32 °F (0 °C).
- For best results, do not overwork the material or re-temper with additional water

TABLE 1 TYPICAL PHYSICAL PROPERTIES

Flow, ASTM C1437	
At 5 Minutes	80% to 100%
Setting Time, ASTM C191	
Initial	Approx. 20 minutes
Final	20 to 40 minutes
Compressive Strength, ASTM C109 (Modified)	
Age	PSI (MPa)
3 hours	2000 (13.7)
24 hours	4000 (27.5)
7 days	5000 (34.4)
28 days	6000 (41.3)
Length Change, ASTM C157	
Age, Condition	
28 days, air	≥ -0.05%
28 days, water	≤ 0.05%
Slant Shear Bond Strength, ASTM C882	
Age	PSI (MPa)
24 hours	1000 (6.8)
7 days	1500 (10.3)
28 days	2000 (13.7)
Freeze Thaw Resistance, ASTM C666	
After 300 cycles	≥ 95% Durability Factor
Scaling Resistance after 25 Cycles, ASTM C672	
	lb/ft ² (kg/m ²)
Scaled Material	≤ 0.5 (2.44)
Tensile Strength by Direct Tension (Pull Off Method), ASTM C1583	
Age	PSI (MPa)
28 days	≥ 250 (1.7)

SAFETY

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

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

KEEP OUT OF REACH OF CHILDREN

SHELF LIFE

12 months from date of manufacture as long as the undamaged package is stored in a dry location that is protected from moisture, and out of direct sunlight.

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.