

NON-SHRINK GENERAL PURPOSE GROUT

PRODUCT NO. 1585-01

PRODUCT DESCRIPTION

QUIKRETE® Non-Shrink General Purpose Grout is a high strength, non-metallic, Portland cement based material with expansive additives designed for grouting steel columns, bearing plates, pre-cast concrete, and anchoring applications.

PRODUCT USE

Typical applications for QUIKRETE® Non-Shrink General Purpose Grout include grouting of:

- Steel columns
- Bearing plates
- Precast concrete
- Other anchoring conditions that require high in-service strength

The non-shrink characteristics of Non-Shrink General Purpose Grout make it stable and capable of handling high load transfers.

NOTE: This product is not for use in precision grouting of machinery. (For precision grouting of machinery use QUIKRETE Non-Shrink Precision Grout #1585-00.)

SIZES

- QUIKRETE® Non-Shrink General Purpose Grout - 50 lb (22.7 kg) bags

YIELD

- Each 50 lb (22.7 kg) bag will yield 0.45 cu ft (12.7 L) at flowable consistency.

TECHNICAL DATA

APPLICABLE STANDARDS

ASTM International

- ASTM C109/109M Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)
- ASTM C827 Standard Test Method for Change in Height at Early Ages of Cylindrical Specimens of Cementitious Mixtures
- ASTM C939 Standard Test Method for Flow of Grout for Preplaced-Aggregate Concrete (Flow Cone Method)
- ASTM C1090 Standard Test Method for Measuring Changes in Height of Cylindrical Specimens from Hydraulic-Cement Grout
- ASTM C1107 Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink)
- ASTM C 1437 Standard Test Method for Flow of Hydraulic Cement Mortar

U.S. Army Corps of Engineers (USACE) - CRD 621

DIVISION 3

Non-Shrink Grouting
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PHYSICAL/CHEMICAL PROPERTIES

QUIKRETE® Non-Shrink General Purpose Grout complies with the physical requirements of ASTM C1107 and CRD 621 when tested at 72 degrees F (22 degrees C).

SURFACE PREPARATION

- Surfaces to receive the grout must be free of any type of foreign material (grease, oil, paint, dust or efflorescence)
- It may be necessary to roughen smooth surfaces or etch old ones with acid. The area should be flushed and soaked with clean water.
- Prior to grouting, remove all standing water.
- Place the grout quickly and continuously using light rodding to eliminate air bubbles

MIXING

QUIKRETE® Non-Shrink General Purpose Grout should be mechanically mixed for a minimum of 5 minutes. Add only enough water to achieve the flow required for the application. Approximate water contents listed in Table 2 are only a guideline. Do not add more water than the amount needed to produce a 20 second flow per Test Method ASTM C939.

CURING

A damp cure of at least 3 days is necessary to control the non-shrink characteristics and maintain strength levels.

PRECAUTIONS

- Additions of cement or other materials will eliminate the designed product qualities
- Water quantities may be affected by temperature, mixing method and batch size
- QUIKRETE® Non-Shrink General Purpose Grout should not be re-tempered
- Mix no more grout than can be placed in 15 minutes.
- Grout temperature should be maintained from 50 - 90 degrees F (10 - 32 degrees C). Use cold water in hot weather or hot water in cold weather to achieve desired grout temperature. Do not pour grout if

temperature is expected to go below 32 degrees F (0 degrees C) within a 12 hour period.

TABLE 1

TYPICAL PHYSICAL PROPERTIES OF FRESHLY MIXED GROUT, ASTM C1107	
Consistency	Plastic
Temperature	72°F (22°C)
Compressive strength, ASTM C109 modified per ASTM C1107	
1 day	3,000 psi (20.7 Mpa)
7 days	9,000 psi (62.1MPa)
28 days	10,000 psi (68.9 MPa)
Height change, ASTM C1090 @ 1, 3, 7 & 28 days	
	0 - 0.2%
Height change, ASTM C827	
	0%
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Consistency	Flowable
Temperature	72°F (22°C)
Compressive strength, ASTM C109 modified per ASTM C1107	
1 day	3,000 psi (20.7 Mpa)
7 days	8,000 psi (55.2 MPa)
28 days	9,000 psi (62.1 MPa)
Height change, ASTM C1090 @ 1, 3, 7 & 28 days	
	0 - 0.2%
Height change, ASTM C827	
	0.3%
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Consistency	Fluid
Temperature	72°F (22°C)
Compressive strength, ASTM C109 modified per ASTM C1107	
1 day	2,000 psi (13.8 MPa)
7 days	6,000 psi (41.4 MPa)
28 days	8,000 psi (55.2 MPa)
Height change, ASTM C1090 @ 1, 3, 7 & 28 days	
	0 - 0.2%
Height change, ASTM C827	
	0.8%

TABLE 2

WATER REQUIREMENTS FOR 50 LB (22.7 KG) BAG	
Method	Volume
Plastic	1 gal (3.8 L)
Flowable	1 gal + 1 pt (4.3 L)
Fluid	1 gal + 3 pt (5.2 L)

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 for the most current technical data, MSDS, and guide specifications

