

# Q MAX - PRO

## CONCRETE MIX

PRODUCT NO. 1004-81

### PRODUCT DESCRIPTION

QUIKRETE® Q MAX - PRO - Pro Concrete Mix provides 1 hour of working time; a walk-on time of 3 hours; and achieves 6500 psi in compressive strength. It is a commercial grade blend of gravel, sand, FastSet™ cement, and other proprietary ingredients specially designed for extended working time, high early strength and fast project completion. Q MAX - PRO Concrete Mix is alkali-resistant fiber glass reinforced for crack resistance and includes an air-entraining admixture for superior workability and freeze-thaw durability. Corrosion protection is built into the design.

### PRODUCT USE

QUIKRETE® Q MAX - PRO Concrete Mix is suitable for any concrete use requiring high early strength and rapid strength gains. Q MAX - PRO can be used for any structural application requiring concrete in a minimum thickness of 2" (51 mm), such as slabs, footings, steps, columns, walls, floors, ramps, sidewalks and patios.

### SIZES

- QUIKRETE® Q MAX - PRO Concrete Mix – 80 lb (36.3 kg) bags

### YIELD

- Each 80 lb (36.3 kg) bag yields approximately 0.60 cu ft (17 L).

### TECHNICAL DATA

#### APPLICABLE STANDARDS

ASTM International - ASTM C387/C387M Standard Specification for Packaged, Dry, Combined Materials for Concrete and High Strength Mortar

#### PHYSICAL/CHEMICAL PROPERTIES

QUIKRETE® Q MAX - PRO Concrete Mix exceeds the requirements of ASTM C387/C387M, as shown in Table 1.

**TABLE 1 TYPICAL PHYSICAL PROPERTIES<sup>1</sup>**

#### Compressive strength, ASTM C39/C39M

3 hours	1000 psi (6.9 MPa)
24 Hours	3000 psi (20.7 MPa)
7 days	5000 psi (34.5 MPa)
28 days	6500 psi (44.9 MPa)

Slump range 2" - 3" (51 - 76 mm)

<sup>1</sup> Tested under standard laboratory conditions in accordance with ASTM C387/C387M.

## DIVISION 3

Maintenance of Concrete  
03 01 00  
Structural Concrete  
03 31 00  
Rigid Pavement Repair  
32 01 29



### INSTALLATION

#### SITE PREPARATION

Stake out the area and remove sod or soil to the desired depth. Nail and stake forms securely in place. Tamp the sub-base until firm.

#### MIXING

- **WEAR IMPERVIOUS GLOVES**, such as nitrile when handling product.

#### MACHINE MIXING

- QUIKRETE® Q MAX - PRO can be mixed in a barrel-type concrete mixer or a mortar mixer. Choose the mixer size most appropriate for the job size. Allow at least 1 cu ft (28 L) of mixer capacity for each 80 lb (36.3 kg) bag of QUIKRETE® Q MAX - PRO to be mixed.
- For each 80 lb (36.3 kg) bag of QUIKRETE® Q MAX - PRO to be mixed, add approximately 3 qt (2.8 L) of fresh water to the mixer. Turn on the mixer and begin adding the bags of concrete to the mixer.
- If the material becomes too difficult to mix, add additional water until a workable mix is obtained.
- If a slump cone is available, adjust water to achieve a 2" - 3" (51 - 76 mm) slump.

Note - Maximum water is expected to be below 4 quarts (3.8 L) per 80 lb (36.3 kg) bag.

#### HAND MIXING

- Add approximately 6 pt (2.8 L) of clean water into a suitable mixing container for each 80 lb (36.3 kg) bag to be mixed.
- Empty bags into the container.

- Work the mix with a shovel, rake or hoe and add water as needed until a stiff, moldable consistency is achieved.
- Maximum water is expected to be below 4 quarts (3.8 L) per 80 lb (36.3 kg) bag.
- Be sure all material is wet; do not leave unabsorbed puddles of water.

## TEMPERATURE OF WATER

Set times will fluctuate in extremely hot or cold weather. Use cold water or water mixed with ice cubes in severely hot weather; use hot water (not exceeding 120° F (49° C) when mixing in severely cold weather.

## APPLICATION

- Dampen the sub-grade before concrete is placed. Do not leave standing puddles.
- Shovel or place the concrete into the form. Fill to the full depth of the form.
- After the concrete has been compacted and spread to completely fill the forms, strike off and float immediately.
- To strike off, use a straight board (screed), moving the edge back and forth with a saw-like motion to smooth the surface. Then use a darby or bull float to float the surface. This helps level any ridges and fill voids left by the straight edge.
- Cut the concrete away from the forms by running an edging tool or trowel along the forms to compact the slab edges.
- Cut 1" (25.4 mm) control joints into the slab every 6' - 8' (1.8 - 2.4 m) using a grooving tool.
- Allow the concrete to stiffen slightly, waiting until all water has evaporated from the surface before troweling or applying a broom finish.

Note - For best results, do not overwork the material.

## CURING

### GENERAL

Curing is one of the most important steps in concrete construction. Proper curing increases the strength and durability of concrete, and a poor curing job can ruin an otherwise well-done project. Proper water content and temperature are essential for good curing. In near freezing temperatures, the hydration process slows considerably. When weather is too hot, dry or windy, water is lost from the concrete through evaporation, and hydration stops, resulting in finishing difficulties and cracks. The ideal circumstances for curing are ample moisture and moderate temperature and wind conditions. Curing should be started as soon as possible and should continue for a period of 5 days in warm weather, 70 F (21° C) or higher, or 7 days in colder weather, 50 – 70 F (10 - 21 C).

### SPECIFIC CURING METHODS

- QUIKRETE® Acrylic Cure & Seal – Satin Finish (No. 8730) provides the easiest and most convenient method of curing concrete. Apply by sprayer or roller after the final finishing operation when the surface is hard. The surface may be damp, but not wet, when applying curing compound. Complete coverage is essential.

- Other methods of providing proper curing include covering the surface with wet burlap, keeping the surface wet with a lawn sprinkler and sealing the concrete surface with plastic sheeting once the surface is hard.
- If burlap is used, it should be free of chemicals that could weaken or discolor the concrete. New burlap should be washed before use. Place it when the concrete is hard enough to withstand surface damage and sprinkle it periodically to keep the concrete surface continuously moist.
- Water curing with lawn sprinklers or hoses must be continuous to prevent interruption of the curing process.
- Curing with plastic sheets is convenient. They must be laid flat, thoroughly sealed at joints and anchored carefully along edges.
- Final appearance will be affected by the curing method used. Burlap and plastic sheet may affect color in spots.

## PRECAUTIONS

- **WEAR IMPERVIOUS GLOVES**, such as nitrile when handling product.
- When used in structural elements, comply with the steel reinforcement and additional requirements of applicable building codes.
- Curing compounds should not be applied if rain or temperatures below 50 F (10° C) are expected within 24 hours
- Curing with plastic or burlap can cause patchy discoloration in colored concrete. For colored concrete, wet curing or chemical curing compounds are recommended.
- Use of QUIKRETE® Acrylic Cure & Seal – Satin Finish (No. 8730) or another curing compound is not recommended during late fall in northern climates on surfaces where de-icers will be used to melt ice and snow. Using curing compounds at that time may prevent proper air curing of the concrete, which is necessary to enhance its resistance to damage caused by de-icers.
- Protect concrete from freezing during the first 48 hours. Plastic sheeting and insulation blankets should be used if temperatures are expected to fall below 32 F (0° C).
- It is recommended that de-icers NOT be used during the first winter season following the concrete application.

**NOTICE OF LIMITED WARRANTY:** The QUIKRETE® Companies, Inc. warrant this product to be of merchantable quality when used or applied in accordance with the instructions hereon. This 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) if 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, Inc. in writing at: One Securities Centre, 3490 Piedmont Road, Suite 1300, Atlanta, GA 30305. **THIS WARRANTY IS ISSUED AND ACCEPTED IN LIEU OF ALL OTHER EXPRESS WARRANTIES AND EXPRESSLY EXCLUDES LIABILITY FOR CONSEQUENTIAL DAMAGES.**