No: MC-01

SUBMITTAL COVERSHEET
Nanuet UFSD –Phase 3 Projects

Architect:
KSQ Architects
215 W 40th Street,15th Floor
New York, NY 10018

Owner:
Nanuet Union Free School District
101 Church Street
Nanuet, NY 10954

Construction Manager:
Jacobs
One Penn Plaza, 54th floor
New York, NY 10019

Contractor: Joe Lombardo Plumbing & Heating of Rockland Inc

Contract: Ron Lombardo

Address: 321 Spook Rock Road Suite 109A
Suffern, New York 10901

Telephone: 845-357-6537

Fax: 845-357-8529

School Name: Nanuet Union Free School District Phase 3 Bond Projects @ Barr Middle School & Nanuet High School

Type of Submittal:

Re-submittal: [ ] No [ ] Yes

[ ] Shop Drawings **[ ]** Product Data **[ ]** Schedule **[ ]** Sample **[ ]** _____
[ ] Test Report **[ ]** Certificate **[ ]** Color Sample **[ ]** Warranty **[ ]** _____

Submittal Description:

Product Name: CONCRETE FOR PADS.

Manufacturer: SACRETE

Subcontractor/ Supplier: LOMBARDO

References:

Spec. Section No.: 035400

Drawing No(s): _____

Paragraph: _____

Rm. or Detail No(s): _____

Architect's/ Engineer's Review Stamp	Contractor Review Statement: These documents have been checked for accuracy and coordinated with job conditions and Contract requirements by this office and have been found to comply with the provisions of the Contract Documents. Ronald J. Lombardo 10.9.23 Name: Date: Company Name: Joe Lombardo Plumbing & Heating of Rockland Inc.

Remarks:

High Strength Concrete Mix

The Pro's Choice Since 1936

Sakrete High Strength Concrete Mix is a preblended mixture of sand, coarse aggregate, and cementitious materials. For new construction or repairs where concrete thickness exceeds 2 inches.

FEATURES:

- 4,000 psi
- Full depth applications 2 in (50 mm) or greater

USE FOR:

- Driveways, slabs, patios, walkways
- Curbs
- Stairs
- Ramps
- Setting fence posts
- Foundation walls and footings
- Structural applications requiring a small volume of concrete

YIELD/WATER/COVERAGE:

Bag Size	Yield	Water
40 lb (18.1 kg)	0.30 ft^3 (.008 m^3)	1.75 qt (1.7 L)
60 lb (27.2 kg)	0.45 ft^3 (.012 m^3)	2.5 qt (2.4 L)
80 lb (36.2 kg)	0.60 ft^3 (.017 m^3)	3.5 qt (3.3 L)
90 lb (40.8 kg)	0.66 ft^3 (.019 m^3)	4.5 qt (4.3 L)
25 kg (Canada)	0.41 ft^3 (.012 m^3)	2.3 qt (2.2 L)
30 kg (Canada)	0.50 ft^3 (.014 m^3)	2.8 qt (2.6 L)

To determine coverage: Multiply Length (feet) x Width (feet) x Thickness (inches) and divide by 12. Then divide by the yield in the chart above to determine the numbers of bags needed. See Calculator on Sakrete.com for additonal assistance. Yield and water are approximate.

TECHNICAL DATA:

Sakrete High Strength Concrete Mix meets or exceeds the compressive strength requirements of ASTM C 387.
Compressive Strength ASTM C 39

7 day = 2,500 psi (17 MPa)
28 days = 4, 000 psi (28 MPa)
Slump Range = 2 – 3 in (50 - 75 mm)

DIVISION 3
Structural Concrete – 03 31 00

COLOR:

Gray

PREPARATION/APPLICATION:

For best results all materials should be stored between 40°F (4°C) and 80°F (27°C) 24 hours prior to installation.

Refer to:
- ACI 302.1 Guide for Concrete Flooring and Slab Construction
- ACI 305R Guide to Hot Weather Concreting
- ACI 306R Guide to Cold Weather Concreting

NOTE: it is the responsibility of the installer/applicator to ensure the suitability of the product for its intended use.

FLATWORK (SLABS, SIDEWALKS, WALKWAYS, ETC.)

1. Stake out the area where the concrete will be placed.
2. Cut and remove all soil, grass, sod, etc.
3. For improved drainage place several inches of gravel into the excavated area. Remember to allow enough depth for both the gravel and a minimum of 4" of concrete.
4. Place forms in the desired area assuring that they are level, square, and all corners sealed so no premixed material can escape once placed.
5. Place the concrete into the forms to full depth
6. Consolidate by moving into corners and low areas to assure there are no voids
7. Using a straight edge strike the surface by rodding back and forth to level with the top of the forms.
8. Float surface to remove any imperfections.
9. Using a concrete grooving tool, cut joints into the concrete every 3 - 4 ft (.9 - 1.2 m). Expansion joints should be placed every 8 ft x 12 ft in each direction and must extend through the entire depth of the slab.
10. Once concrete has stiffened slightly and the water has evaporated from the surface a broom finish can be applied. Forms can be removed the day following placement.

POSTS AND POLES:

1. Dig hole to required depth and diameter (depth should be 1/3 the length of the post or pole and hole should be 3 times the diameter of the pole or post width).
2. Place the post or pole in the center of the hole.
3. Level and support post or pole in place.
4. Fill hole with mixed concrete and consolidate to remove any air voids
5. Slope concrete at the surface to allow water to drain away.
6. Wait a minimum of 24 hours before posts or poles are subjected to any strain.
7. If load bearing consult with your local building code requirements before proceeding.

REPAIRS:

1. Surfaces to be repaired must be sound, dimensionally stable, and clean.
2. Slick or sealed surfaces must be thoroughly roughened to an ICRI CSP of 3 to 5.
3. Sides of repair area must be squared off.

4. Clean all reinforcing steel to bare white metal and coat with a rust preventative if not covering within 8 hours.
5. All surfaces that will come in contact with the concrete mix should be brought to a SSD (Surface Saturated Dry) condition before application of the material.
6. Clean and remove all loose materials and debris before proceeding.
7. Place the mixed concrete mix into the area that is being repaired.
8. Use a float to remove any surface imperfections.

MIXING:

1. Empty contents of Sakrete High Strength Concrete into a wheelbarrow or mortar pan forming a crater in the center of the dry mix for the addition of clean potable water. Projects requiring multiple bags are mixed much easier with a mechanical concrete mixer.
2. Add clean potable water (see table above for water amounts) or enough to achieve a workable mix. Add additional water if needed but AVOID A SOUPY MIX. Excess water reduces strength and durability and can cause cracking, dusting or scaling.

CURING:

1. Proper curing is critical for sound results. Curing means maintaining proper moisture and temperature. The concrete must be kept continuously moist for several days.
2. Covering the concrete slab with plastic is a practical way to help retain moisture. Place plastic after concrete has set.
3. If surface begins to appear dry remove the plastic moisten the surface and replace the plastic.
4. New concrete can be opened to foot traffic in 24 hours and vehicular traffic in 72 hours.

PRECAUTIONS:

Air, mix and substrate temperatures should be between 40°F (4°C) and 90°F (32°C) with no rain in the forecast within 24 hours of application. For applications outside this range of temperatures and conditions, contact Sakrete Technical Service.

- Colder temperatures or higher humidity conditions will retard set times
- Use only clean mixing container and tools
- Do not over trowel
- Do not overwater
- Do not add any materials other than clean potable water or Sakrete Bonder and Fortifier. See Technical Data Sheet for mixing instructions
- Protect from freezing for 48 hours

NOTE: Proper application and installation of all Sakrete products are the responsibility of the end user.

SAFETY:

READ and UNDERSTAND the Safety Data Sheet (SDS) before using this product. WARNING: Wear protective clothing and equipment. For emergency information, call CHEMTREC at 800-424-9300 or 703-527-3887 (outside USA).
KEEP OUT OF REACH OF CHILDREN.

LIMITED PRODUCT WARRANTY:

The manufacturer warrants that this product shall be of merchantable quality when used or applied in accordance with the manufacturer's instructions. This product is not warranted as suitable for any purpose other than the general purpose for which it is intended. This warranty runs for one (1) year from the dates the product is purchased. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED TO THE DURATION OF THIS WARRANTY. Liability under this warranty is limited to replacement or defective products or, at the manufacturer's option, refund of the purchase price. CONSEQUENTIAL AND INCIDENTAL DAMAGES ARE NOT RECOVERABLE UNDER THIS WARRANTY.

QUIKRETE®

CEMENT & CONCRETE PRODUCTS™

CONCRETE BONDING ADHESIVE

PRODUCT NO. 9902

DIVISION **3**

Common Work Results for Concrete 03 05 00

PRODUCT DESCRIPTION

QUIKRETE® Concrete Bonding Adhesive is specifically formulated for permanently bonding new concrete or plaster to old concrete or plaster. It is suitable for interior or exterior applications. QUIKRETE® Concrete Bonding Adhesive is also used as the required primer for QUIKRETE® Self-Leveling Floor Resurfacer.

PRODUCT USE

This exterior grade synthetic emulsion adheres new concrete, toppings and Portland cement plaster or repair material to floors, walls, sidewalks, silos, concrete pipes, concrete pavements, concrete and cinder blocks, curbs and steps. It provides a permanent physical bond which is stronger than the material being bonded. There is no need for chipping, drilling or roughing the old surface before application.

SIZES

- 1 qt (0.95 L) plastic bottles
- 1 gal (3.8 L) plastic jugs
- 5 gal (18.9 L) plastic buckets

YIELD

- As a paint-on adhesive - 35 to 75 ft²/qt (140 to 300 ft²/gal) (3.4 to 7.3 m²/L)
- As a slurry coat - approximately 19 ft²/qt (76 ft²/gal) (1.85 m²/L)
- As a primer – 150 to 300 ft²/qt (600 to 1200 ft²/gal) (14.7 to 29.4 m²/L)

TECHNICAL DATA

APPLICABLE STANDARDS

ASTM International

- ASTM C1059 Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete
- 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)

Note – QUIKRETE® Concrete Bonding Adhesive applied to appropriate substrates will achieve tensile bond strengths typical of those shown in Table 1. QUIKRETE® Concrete Bonding Adhesive meets or exceeds the requirements for ASTM C1059 Types I and II as shown in Table 2.

TABLE 1 TYPICAL TENSILE BOND STRENGTH (ASTM C 1583)

Application	Tensile Bond Strength
Sand Mix bonded with paint-on adhesive	7 days: 100 psi (0.7 MPa) 28 days: 150 psi (1.0 MPa)
Sand Mix bonded with a slurry coat	7 days: 300 psi (2.1 MPa) 28 days: 350 psi (2.4 MPa)
Primer for Self-Leveling Floor Resurfacer	7 days: 300 psi (2.1 MPa) 28 days: 400 psi (2.8 MPa)

TABLE 2 SLANT SHEAR STRENGTHS (ASTM C 1059)

Adhesive Type	Specification
Type I	> 400 psi (2.8 MPa)
Type II	> 1250 psi (8.6 MPa)

INSTALLATION

SURFACE PREPARATION

- Apply only to clean, sound surfaces
- Remove dust, dirt, oil, grease, wax, unsound concrete and plaster, paint and other foreign materials

APPLICATIONS

Use As a Paint-On Adhesive

- Apply to surface with brush or roller to the thickness of a coat of paint. Can be applied to a dry or damp surface
- Place new concrete, topping mixes, Portland cement, plaster mixes or patches as soon as the adhesive is dry. Gypsum plasters and finish plasters should be placed over tacky coat of adhesive
- Make sure basecoat plaster is dry before applying adhesive
- Tools, brushes and other application accessories should be immediately cleaned with soapy water. Use hot water to clean up any drippings

Use As a Slurry Coat

- Make slurry from approximately 2 parts Portland cement and 1 part Concrete Bonding Adhesive
- Apply a thin layer of slurry onto the properly prepared substrate using a trowel, brush or squeegee, being sure to rub the slurry thoroughly into the surface
- Apply topping or repair material immediately before the slurry dries

Use As a Primer for Self-Leveling Floor Resurfacers

• Concrete must be free of coatings, curing compounds or waxes and rigorously clean, dust-free and in sound condition. Use proper repair techniques to replace unsound concrete with the appropriate QUIKRETE® repair material. Remove old coatings and weak surface laitance with appropriate abrasive techniques. Shotblasting of the surface is most preferred

• Dilute 1 part QUIKRETE® Concrete Bonding Adhesive with 2 parts clean water. Stir well before using

• Apply with broom, roller or garden sprayer to saturate the surface. Clean tools and equipment immediately with warm soapy water

• Low porosity concrete in good condition typically requires 1 coat. Porous concrete typically requires 2 coats

• Do not apply QUIKRETE® Self-Leveling Floor Resurfacer until the QUIKRETE® Concrete Bonding Adhesive is dry to the touch. If there is no visible sheen to the concrete, apply a second coat of QUIKRETE® Concrete Bonding Adhesive and wait for it to dry. A drying time of 2 to 3 hours is typical, although drying times will vary greatly with temperature, humidity and the condition of the concrete

• If the area coated with QUIKRETE® Concrete Bonding Adhesive is kept clean and dry, the topping can be applied up to 48 hours after installation of the QUIKRETE® Concrete Bonding Adhesive

PRECAUTIONS

• Protect QUIKRETE® Concrete Bonding Adhesive from freezing

• Do not apply at temperatures below 50 degrees F (10 degrees C)

• Do not use over previously painted surfaces

• Do not use in combination with QUIKRETE® Concrete Acrylic Fortifier

• Do not store in areas over 100 degrees F (38 degrees C)

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 under the authority of The Quikrete Companies, LLC.

** Refer to www.quikrete.com for the most current technical data, SDS, and guide specifications*

Revised 05 June 2018

STEEL & CONSTRUCTION PRODUCTS CATALOG

1949 – 2003

54

YEARS OF EXCELLENCE

Admiral STEEL

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FAX: (708) 388-3412

E-MAIL: sales@admiralsteel.com

WEB: www.admiralsteel.com

ISO 9002 REGISTERED

ANSI-RAB QMS ACCREDITED SRI Quality System Registrar RvC

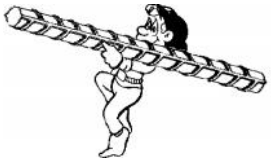
INDEX

Admiral Steel purchases only 100% prime steels - absolutely no secondaries.
Certifications for all steels, rebar, and wire mesh are available if requested at time of ordering.

Admiral STEEL

CONCRETE REINFORCING BARS

ASTM A-615 GRADE 60 REBARS



Available as stock lengths or fabricated.
We offer complete estimating, detailing, & fabricating services.
Epoxy coating available for stock size or fabricated bars.

BAR SIZE	US METRIC	DIAMETER	WEIGHT	WEIGHT	GRADES & TYPES
#3	#10	.375	.376	.560	GRADE 60, EPOXY
>>>>>>> #4	#13	.500	.668	.994	GRADE 40 & 60, EPOXY
#5	#16	.625	1.043	1.552	GRADE 60, EPOXY
#6	#19	.750	1.502	2.235	GRADE 60, EPOXY
#7	#22	.875	2.044	3.042	GRADE 60
#8	#25	1.000	2.670	3.973	GRADE 60
#9	#29	1.125	3.400	5.060	GRADE 60
#10	#32	1.270	4.303	6.404	GRADE 60
#11	#36	1.410	5.313	7.907	GRADE 60
#14	#43	1.693	7.650	11.380	SPECIAL ORDER
#18	#57	2.257	13.600	20.240	SPECIAL ORDER

FOR DOWELS AND REINFORCING

* As of June 1996, the ASTM adopted a metric standard for rebar. The new standard calls for a "soft" conversion of the current sizing system. With the new "soft" metric standard there won't be any changes to the physical diameter of the bars, only the names will change.

BLACK ANNEALED TIE WIRE

>>>>>>>>>> 16 Gauge 3-1/2# "Hip Coils"

STD WIRE

Soft Wire, Approximately 385' per roll
Available by the roll or in 20 roll boxes
Plastic coated for epoxy bars also available

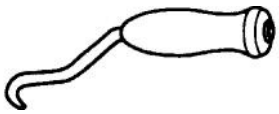
9 Gauge 100# Shoulder Coils

Soft Wire, Approximately 1700' per roll

16 Gauge Looped End Wire Ties

6", 8", & 12" Lengths
5000 Pieces per Bundle
Other lengths available on special order

Pistol Grip Twisters
For Looped End Wire Ties

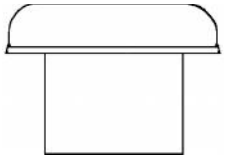


Automatic Twisters
For Looped End Wire Ties

REBAR SAFETY CAPS

Econ-o-guard Protection Caps

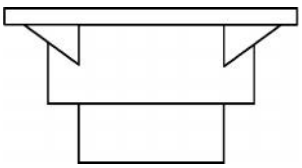
Made of brightly colored heavy duty polyethlene.
Intended as a visual warning of a possible hazard.



Not intended for use as fall or penetration protection.

Impalement Protection Caps

Made of high-impact plastic with a metal insert.
4 x 4 top surface area aids in protection.



Complies with OSHA 701(b)

Admiral STEEL

1.06 - D -2 - b - REINFORCING FABRIC REINFOREMENT

COMMON STOCK STYLES OF WELDED WIRE FABRIC

STYLE DESIGNATION		STEEL AREA Sq. In. per ft.		WEIGHT Approx Lbs. Per 100 sq.ft.
Current Designation (By W - Number)	Previous Designation (By Steel Wire Gage)	Longit.	Trans.	
PANELS/SHEETS				
6 x 6 - W1.4 / W1.4	6 x 6 - 10 / 10	.028	.028	21
6 x 6 - W2.1 / W2.1	6 x 6 - 8 / 8	.040	.040	29
6 x 6 - W2.9 / W2.9	6 x 6 - 6 / 6	.058	.058	42
>>>>>>>>>>>> 6 x 6 - W4.0 / W4.0	6 x 6 - 4 / 4	.080	.080	48
4 x 4 - W2.9 / W2.9	4 x 4 - 6 / 6	.087	.087	62
4 x 4 - W4.0 / W4.0	4 x 4 - 4 / 4	.120	.120	86
ROLLS				
6 x 6 - W1.4 / W1.4	6 x 6 - 10 / 10	.028	.028	21
6 x 6 - W2.9 / W2.9	6 x 6 - 6 / 6	.058	.058	42
6 x 6 - W2.1 / W2.1	6 x 6 - 8 / 8	.040	.040	29
ALL SIZES AVAILABLE PLAIN, EPOXY COATED, OR GALVANIZED CALL FOR PRICING & AVAILABILITY ON OTHER SIZES				

grout for dowels into existing slab for equipment pads

NON-SHRINK GENERAL PURPOSE GROUT

PRODUCT NO. 1585-01

DIVISION **3**

Non-Shrink Grouting
03 62 00

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

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%
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%
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.

The QUIKRETE® Companies
One Securities Centre
3490 Piedmont Rd., NE, Suite 130Atlanta, GA 30305
(404) 634-9100 • Fax: (404) 842-1425