



SPECCRETE® SUPERB GROUT 611

HIGH STRENGTH NON-SHRINK CEMENTITIOUS GROUT

PRODUCT DESCRIPTION: *Speccrete® Superb Grout 611* is a pre-blended, non-shrink, non-ferrous, high strength multiple use material, which can be mixed from dry pack to fluid consistencies. Some common grouting applications include structural columns, pump equipment and machinery bases, bearing plates, dowel and rebar placements, rail posts, and seating bolts.

BENEFITS:

- **May be used from dry pack to fluid**
- **Controlled expansion**
- **High strength**
- **Non-metallic**

COMPOSITION: Portland cement, selected aggregates & chemical additives. This product contains no calcium chloride or intentionally added chlorides that contribute to reinforcement steel corrosion.

LEED CREDIT CONSIDERATIONS: Materials and Resources:

MR Credits 5.2: Regional materials- Greater than 20% extracted, processed and manufactured regionally at production location: Lemont, Illinois 60439. 90% Content- Harvested within 500 miles.

TECHNICAL DATA: *Speccrete® Superb Grout 611* complies with ASTM C-1107 Grade C, ASTM C-109, ASTM C-191, ASTM C-348, ASTM C-827, ASTM C-157, CRD C-588, CRD C-621, CRD C-226, CRD C-266, AASHTO T-161B.

WORKING & PERFORMANCE PROPERTIES @ 70°F (21°C) (APPROXIMATE):			
Yield per 50 lb. / 22.68 kg Bag:		0.46 cubic feet / 0.013 cubic meters	
Initial Set per ASTM C-191:		2.00 Hours	
Final Set per ASTM C-191		2.50 Hours	
COMPRESSIVE STRENGTH PER ASTM C-227	PLASTIC PER ASTM C-1437	FLOWABLE PER ASTM C-1437	FLUID PER ASTM C-939
1 day	4810 psi	4980 psi	5240 psi
3 days	8360 psi	7030 psi	7440 psi
7 days	8710 psi	8450 psi	8270 psi
28 days	11290 psi	11060 psi	10820 psi
FLEXURAL STRENGTH PER ASTM C-348 - PLASTIC CONSISTENCY:			
7 days:		1470 psi	
28 days:		1560 psi	
TENSILE STRENGTH PER ASTM C-190 - PLASTIC CONSISTENCY:			
7 days:		530 psi	
28 days:		585 psi	
PULL OUT TEST #9 GRADE 60 REBAR @ 60,000 LBS. FOR 1 MIN.:	12" DEPTH:	18" DEPTH:	CONTROLLED EXPANSION (PLASTIC) PER CRD-621:
3 days	Pass	Pass	+0.02%
28 days	Pass	Pass	+0.03%
DYNAMIC MODULUS OF ELASTICITY PER AASHTO T161:		102% average at 300 cycles	
CHLORIDE CONTENT PER ASTM C1218:		20 ppm = 0.08 lb./ yd ³ chloride ion	
LENGTH CHANGE PER ASTM C-157 (28 DAY)		Ave. dry = -0.248 / wet cured +0.074	
EARLY HEIGHT CHANGE PER ASTM C-827		% Change Final Set +1.5	

DIRECTIONS FOR USE: SURFACE PREPARATION: Refer to ACI 351 guidelines “Grouting for Support of Equipment and Machinery” for a detailed review of grouting procedures. All areas to be grouted shall be clean and free of oil, grease, dirt and all contaminants.

Bolts and metal components: Free of oil, grease, rust and paints. Preferably sand blasted to a “bright metal” condition.





DIRECTIONS FOR USE: SURFACE PREPARATION (continued):

Holes: Dry drilled holes must be blown free of dust and debris. Holes must be dry and free of oil and grease. Wet drilled holes should be rinsed out with fresh water to remove drilling slurry. Holes must be dried and be free of oil and grease. Formed holes must be scarified to remove laitance. Holes must be dry and free of oil and grease

Formed Pads: Thoroughly saturate the area to be grouted with potable water prior to the placement of *Speccrete® Superb Grout 611*. Remove excess water from the area just prior to grout placement. Where required, air relief openings shall be provided to avoid entrapment of air. Forms for base plates and machinery bases should be set to allow for rapid and continuous placement and complete filling of the space to be grouted. Wooden surfaces that can absorb moisture should be pre-treated with form oil. Support elements should be anchored so that no movement is possible. Edges of concrete to be grouted which are less than one inch deep shall be cut back to form a uniform butt. Forms should be tight and left in place for positive expansion of the grout.

Dimensions: Hole Depth:

Deformed bars or threaded bolts: Depth = 10 x Bolt Diameter

Smooth bar or bolts with heads or nuts on bottom: Depth = 12 x Bolt Diameter

Dimensions; Hole Diameter:

For hole depth up to 24 inches: Hole Diameter = Bolt Diameter + 1.5 inches

For hole depth over 24 inches: Hole Diameter = Bolt Diameter + 2.0 inches.

The general rule is when the bolt diameter is one inch or less, the hole diameter should be a minimum of two inches. When the bolt's diameter is greater than one inch, the hole diameter should be at least twice the bolt diameter. The dowel or bolt should be embedded adequately so that the embedded item will pass its yield point before pull out or prior to grout pulling out of the surrounding concrete

MIXING; Small quantities may be mixed by hand larger quantities may be mixed using a slow speed motor and paddle mixer or a rotary mixer with rubber tip blades. *Speccrete® Superb Grout 611* should be placed immediately after mixing.

Recommended water ratio per 50 lb. bag Speccrete® Superb Grout 611:	
CONSISTENCY:	WATER REQUIREMENT:
Dry Pack:	6.40 pints (3.02 liters) = 13.33%
Stiff:	6.90 pints (3.25 liters) = 14.37%
Plastic:	7.40 pints (3.50 liters) = 15.41%
Flowable:	7.95 pints (3.76 liters) = 16.55%
Fluid:	9.20 pints (4.34 liters) = 19.16%

APPLICATION: *Speccrete® Superb Grout 611* should be placed in accordance with ACI standard grouting procedures. Use chains, rods or tamping devices to compact grout tightly, removing all air voids. When pumping, typical high shear colloidal mixers utilizing a progressive cavity pump are commonly used and recommended. Place grout quickly and continuously. Finished *Speccrete® Superb Grout 611* should be cured by standard ACI methods. For grouting deep fills, greater than 2", *Speccrete® Superb Grout 611* can be extended with clean, washed 3/8" pea gravel in the range of 13 to 26 pounds (1-2 gallons) per 50 lb. bag. If adding dry pea gravel, additional water should be added at a rate of 0.4 gallon per gallon of aggregate. If adding "pre-wet" or damp gravel, then no additional water should be added.

CAUTIONS: *Speccrete® Superb Grout 611* should **not** be used as a structural repair mortar, as an overlay mortar topping, or in unconfined areas. Mix *Speccrete® Superb Grout 611* no more than 3-4 minutes. Do not mix more material than can be placed in 10 minutes. The temperature of the mixed grout should ideally be between 45° F to 70° F. Do not use hot water for mixing. Use only potable water for mixing. Clean mixing equipment between batches. When pumping, if using smaller one inch hoses, make sure to have intake screens in place to catch any lumps that may fall off of mixer and cause possible line jam. **When mixing *Speccrete® Superb Grout 611*, the water-to-powder ratio is very critical, do not vary the specified water amount or over water.** When frothing or foaming occurs on the wet mix surface, the mix is too wet for any application. Do not re-temper. Use of any extension aggregates will alter physical properties as listed. Clean mixing equipment between batches.





CAUTIONS (Continued): Protect from excessive sun, low humidity, rain and wind exposure, as well as temperature extremes that could prevent inadequate curing. Do not apply to frozen, frost filled or hot surfaces. Do not apply during freezing weather. Colder temperatures will extend open time and reduce rate of strength gain. Do not add calcium chloride or other accelerator type admixtures.

GHS HAZARD RATINGS: DANGER:



Irritant: Respiratory Tract Irritation.



Health Hazard: Known carcinogen



Health Hazard: Corrosive Material

WARNINGS: HEALTH HAZARD & IRRITANT: This product contains both Portland cement & crystalline silica (a known carcinogen). It is established that prolonged breathing of crystalline silica dust over time will increase the risk of serious lung disease (Silicosis). Refer to product S.D.S. (SAFETY DATA SHEET) for FIRST AID INFORMATION, or any related health and safety information before using this product. For medical emergencies only, call INFOTRAC @ 800-535-5053.

FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. Avoid Inhalation of these dusts and any prolonged, direct contact with skin. Wear chemical resistant gloves, safety goggles, and O.S.H.A. /N.I.O.S.H. approved respirator during mixing and placement. Keep away from food and drink. Wash hands thoroughly after use and before eating. Do not take internally.

NPCS HMIS SAFETY RATINGS: HEALTH = 2, FLAMMABILITY = 0, REACTIVITY = 0, PROTECTION = E

PACKAGING: 50 lb. (22.70 kg) bags

STORAGE: 40°F to 90°F in a dry, climate protected warehouse.

SHELF LIFE: 1 year properly stored

FREIGHT CLASS: Item #42130, Sub 0, Freight Class 50 -Cement base grouting material in bags

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