



1. Product Name

- SPEC MIX® Self Consolidating Masonry Grout (SCG)
URL: [Self Consolidating Masonry Grout](#)

Video instructions:

- SPEC MIX Core Fill Grout (Fine and Coarse)
URL: [Core Fill Grout](#)
Videos: [SPEC MIX Masonry Solutions](#)
[SPEC MIX Self Consolidating Grout](#)

2. Manufacturer

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3. Product Description

Basic Use

SPEC MIX SCG

SPEC MIX Self Consolidating Grout (SCG) is a dry, preblended, cement-based grout used to bond adjacent masonry units, fill bond beams and occupy all areas around steel reinforcement in masonry assemblage cores. Suited for both low- and high-lift applications, SPEC MIX SCG is ideal for grout lifts greater than 5 feet (1.5 m).

SPEC MIX SCG delivers outstanding fluidity and increased cohesion over conventional core fill grout, with excellent resistance to fluid grout mix segregation. It easily fills masonry cores without voids and with no consolidation effort (mechanical vibration), even around heavily congested reinforcing steel and other obstructions.

SPEC MIX Core Fill Grout

SPEC MIX Core Fill Grout is a dry, preblended mix with high flow. Formulated to fill masonry voids, it meets ASTM C476 requirements for reinforced masonry construction. SPEC MIX Core Fill Grout is a fluid cementitious material that bonds



SPEC MIX SCG reduces labor by eliminating consolidation and reconsolidation of masonry grout.

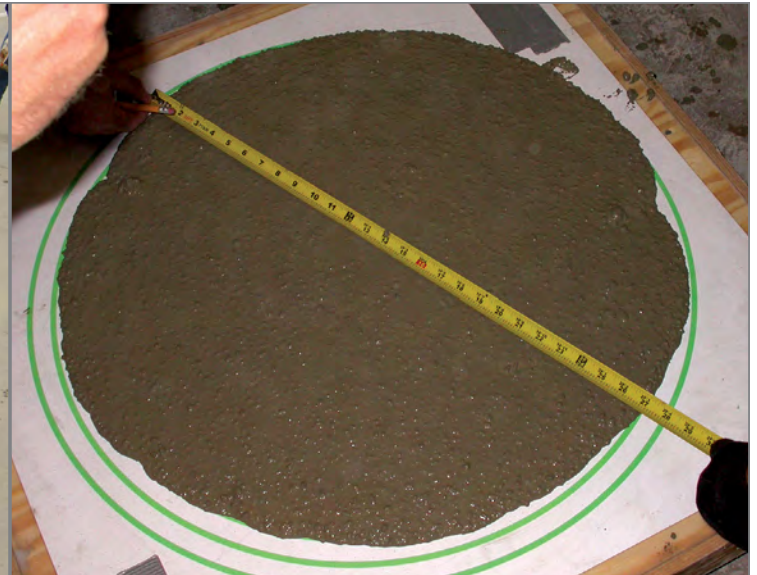
adjacent masonry units and steel reinforcement in the cores of masonry units to the masonry assemblage. It can also be used to reinforce bond beams. Used in conjunction with existing reinforcement, SPEC MIX Core Fill Grout produces a structurally sound final wall system for reinforced masonry construction.

Composition & Materials

SPEC MIX products are produced under strict manufacturing standards, with complete quality control measures implemented for every batch.

SPEC MIX products are locally manufactured throughout the United States and Canada using high tech blending equipment and following strict quality control procedures. Most SPEC MIX products are produced and manufactured with local raw materials within 500 miles of the jobsite.

SPEC MIX SCG is available in both coarse and fine formulations and is composed of cementitious materials, the newest generation



Total spread for SCG should range 22–30" (559–762 mm) when mixed with the appropriate water content.

SCG Slump-Flow test targets a 20" (508 mm) spread in 2–5 seconds.

of water-reducing and viscosity-modifying admixtures and dried aggregates. Aggregate gradations are optimized to meet ACI gradation 1 or 2 and ASTM C404 requirements.

SPEC MIX Core Fill Grout is available in coarse and fine formulations and contains Portland cement, pozzolans and dried aggregates.

Sizes

SPEC MIX SCG and Core Fill Grout products are packaged in 80 lb (36 kg) bags for easy hand loading and in 3000 pound (13601 kg) bulk bags for use with any SPEC MIX material delivery system.

Benefits

SPEC MIX SCG

- Flows around reinforcement and fills voids without segregation or separation
- Preblended to minimize labor cost and provide batch to batch consistency
- Delivers enhanced performance over standard grout products and is accepted for all types of masonry construction
- Requires no consolidation or reconsolidation, resulting in significant labor savings
- Certified to meet ASTM C476 proportion and property requirements for self-consolidating grout
- Certified to meet ASTM C476 flow requirements

SPEC MIX Core Fill Grout

- Preblended to minimize labor cost and provide batch to batch consistency

- Certified to meet ASTM C476 proportion and property requirements for core fill grout
- Certified to meet ASTM C476 compressive strength requirements for reinforced masonry construction in all types of grout applications

Limitations

- SPEC MIX SCG and SPEC MIX Core Fill Grout must be installed in accordance with applicable ASTM standards. Good construction practices ensure durable and functional construction
- Due to the effectiveness of its proprietary admixtures, SPEC MIX SCG should be discarded after 30 minutes from the time of initial mixing

4. Technical Data

Applicable Standards

American Society for Testing and Materials (ASTM)

- ASTM C33—Standard Specification for Concrete Aggregates
- ASTM C143/C143M—Test Method for Slump of Hydraulic Cement Concrete
- ASTM C150—Standard Specification for Portland Cement
- ASTM C260—Standard Specification for Air-Entraining Admixtures for Concrete
- ASTM C404—Standard Specification for Aggregates for Masonry Grout
- ASTM C476—Standard Specification for Grout for Masonry
- ASTM C595—Standard Specification for Blended Hydraulic Cements

- ASTM C618—Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
- ASTM C989—Standard Specification for Ground Granulated Blast-Furnace Slag for Use in Concrete and Mortars
- ASTM C1019—Standard Test Method for Sampling and Testing Grout
- ASTM C1093—Standard Practice for Accreditation of Testing Agencies for Unit Masonry
- ASTM C1157—Standard Performance Specification for Hydraulic Cement
- ASTM C1314—Standard Test Method for Compressive Strength of Masonry Prisms
- ASTM C1611—Standard Test Method for Slump Flow of Self-Consolidating Concrete

American Concrete Institute (ACI)

- ACI 530.1—Specifications for Masonry Structures

Physical properties

See Table 1.

5. Installation

Preparatory Work

Deliver products in manufacturer’s original, unopened, undamaged containers with identification labels intact. Store protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

Verify that site conditions are acceptable for installation. Do not proceed with installation until unacceptable conditions are corrected.

Methods

Silo Mixing

When using one of the patented SPEC MIX silo systems, bulk bags of SPEC MIX SCG or Core Fill Grout are delivered to the project site with a silo. The portable silo is loaded with a job site forklift and the product is dispensed into the mechanical batch mixer. As much or as little material can be mixed to suit project needs. Products should be hand mixed only with written approval of the project specifier or engineer.

Mixing SPEC MIX SCG

Mixing SPEC MIX SCG from our silo system with 3000 pound (1360.8 kg) and 80 pound (36.3 kg) bags is slightly different compared to standard masonry grout. Since SCG is completely dry, preblended with aggregates and admixtures, the following steps are required

1. A mechanical batch mixer is strongly recommended. Only hand-mix upon the written approval of the project specifier or engineer.

2. Always use clean, potable water.
3. Start by adding 80 percent of the estimated water content required. The optimal amount of mixing water necessary is predetermined by SPEC MIX’s engineers and is available from your local SPEC MIX representative.
4. Mix SCG for at least 2 minutes once all the ingredients are added. Note due to unique chemistry of the specialized admixtures in SCG, these materials need approximately two minutes to activate.
5. After two minutes of initial mixing and the mix appears fluid and consistent, temper the SCG with water as needed to achieve optimal fluidity without segregation. Total mix times are between 3 to 5 minutes and should be consistent from batch to batch. Water/SCG ratios should also be consistent. Although a visual test of the cementitious paste and aggregates will indicate when a homogenous mix is achieved, it is imperative to perform a slump-flow test and a visual stability index (VSI) assessment to ensure the mix is ready for installation. See the Field Testing and Handling section on the previous page which lists the equipment required and procedures to conduct a proper slump-flow test.

Visit www.specmix.com for additional information as well as a video demonstration of mixing procedures.

Under the following conditions, place grout in lifts not exceeding 12.7 feet (3.9 m):

- When cleanouts are required for lifts exceeding 5 feet (1½ m)
- After masonry has cured for at least 4 hours
- When SPEC MIX SCG grout slump flow is maintained between 24–30 inches (610–762 mm)
- When no intermediate reinforced bond beams are placed between the top and bottom of the pour height

Mixing Core Fill Grout

1. Use a mechanical batch mixer to ensure homogeneity, workability and good board life.
2. Add the minimum amount of clean, potable water for optimum workability.
3. Mix for five minutes consistently from batch to batch.

Property	Coarse SCG	Fine SCG
Compressive strength (ASTM C1019), 28-day	3000–5000 psi (21–35 MPa)	3000–5000 psi (21–35 MPa)
Slump flow (ASTM C1611)	22–30" (559–762 mm)	22–30" (559–762 mm)
T-20	2–5 seconds	2–5 seconds
Visual stability index, VSI (ASTM C1611)	0	0

4. Hand mix grout only with written approval by the specifier who should outline procedures.
5. Use grout within 1½ hours after initial mixing.
6. Cure grout for a minimum of 28 days.

Precautions

- Maintain uniform water/cement ratios and mix times. Adding too much water when mixing can compromise compressive strength by raising the water/cement ratio of the grout
- Hand-mix only with written approval of the project specifier or engineer
- Grout must cure for a minimum of 28 days
- Due to the high fluidity of SPEC MIX SCG, cells to be filled should be cross-webbed with mortar at the concrete masonry unit core to prevent leakage into adjacent cells not requiring core fill grout
- SPEC MIX SCG should be discarded after 30 minutes from the time of initial mixing

Safety

IMPORTANT! READ BEFORE USING. WEAR IMPERVIOUS GLOVES, such as nitrile.

WARNING CAN CAUSE SERIOUS INJURY TO SKIN AND EYES. This product contains Portland cement. Contact with freshly mixed product can cause severe burns. Avoid direct contact with skin and eyes. If this product should contact eyes, immediately flush with water for at least 15 minutes and consult a physician. For skin exposure, wash promptly with plenty of soap and water. Remove soaked clothing promptly. If this product burns your skin, see a physician immediately. This product may contain silica. Silica dust if inhaled may cause respiratory or other health problems. Prolonged inhalation may cause delayed lung injury, including silicosis and possibly cancer. A N95 approved dust mask, eye protection and rubber boots and gloves are recommended when using this product. Safety Data Sheets can be viewed online at www.specmix.com

KEEP OUT OF REACH OF CHILDREN WARNING This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Building Codes

Installation must comply with requirements of all applicable local, state and federal code jurisdictions.

6. Availability & Cost

SPEC MIX products, as well as the SPEC MIX silo delivery system, are available nationally with local distribution to every major U.S. market and select regions of Canada.

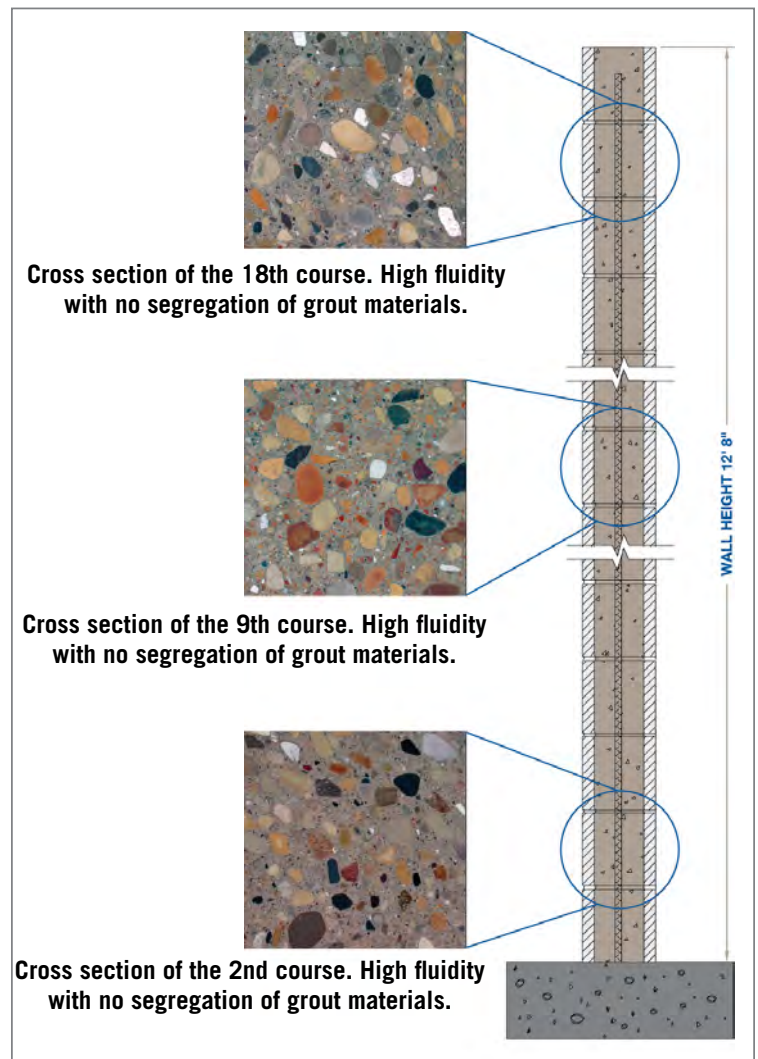
Contact SPEC MIX, Inc., at 888-773-2649 for more information or visit www.specmix.com/locator to locate a local representative.

Consult a local SPEC MIX representative for detailed price information.

7. Warranty

Limited WARRANTY

SPEC MIX, Inc. warrants 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 company's option, to refund the purchase price. In the event of a claim under this warranty, notice must be given to SPEC MIX, Inc. in writing



Cross section of the 18th course. High fluidity with no segregation of grout materials.

Cross section of the 9th course. High fluidity with no segregation of grout materials.

Cross section of the 2nd course. High fluidity with no segregation of grout materials.

SPEC MIX SCG ensures that aggregates stay evenly suspended, without external consolidation and reconsolidation

Table 2—Grout Selection and Lift Height Requirements

Minimum Grout Space Dimensions			
Grout Type	Minimum Width of Grout Space ¹ for Grouting between Masonry Wythes ¹	Maximum Grout Pour Height	Minimum Grout Space Dimensions for Grouting Cells of Hollow Units ^{2,3}
Fine	¾" (19.1 mm)	1' (0.305 m)	1½ × 2" (38.1 × 50.8 mm)
Fine	2" (50.8 mm)	5' (1.52 m)	2 × 3" (50.8 × 76.2 mm)
Fine	2½" (63.5 mm)	12' (3.66 m)	2½ × 3" (63.5 × 76.2 mm)
Fine	3" (76.2 mm)	24' (7.32 m)	3 × 3" (76.2 × 76.2 mm)
Coarse	1½" (38.1 mm)	1' (0.305 m)	1½ × 3" (38.1 × 76.2 mm)
Coarse	2" (50.8 mm)	5' (1.52 m)	2½ × 3" (63.5 × 76.2 mm)
Coarse	2½" (63.5 mm)	12' (3.66 m)	3 × 3" (76.2 × 76.2 mm)
Coarse	3" (76.2 mm)	24' (7.32 m)	3 × 4" (76.2 × 102 mm)

¹ Grout space dimension is the clear dimension between any masonry protrusion and shall be increased by the diameters of the horizontal bars within the cross section of the grout space.
² Area of vertical reinforcement shall not exceed 6% of the area of the grout space.
³ Masonry Standard Joint Committee 2005/ACI 530-05 Table 1.16.1.

at One Securities Centre, 3490 Piedmont Road, Suite 1300, Atlanta, GA 30305. THIS LIMITED WARRANTY IS ISSUED AND ACCEPTED IN LIEU OF ALL OTHER EXPRESS WARRANTIES AND EXPRESSLY EXCLUDES LIABILITY FOR CONSEQUENTIAL DAMAGES.

8. Maintenance

Properly mixed and installed masonry units and mortar require little maintenance. Depending on service conditions, masonry walls may require periodic cleaning and tuckpointing.

9. Technical Services

For technical assistance, contact SPEC MIX, Inc., or a local SPEC MIX representative.

10. Filing Systems

- Additional product information is available from the manufacturer upon request