

## SECTION 03605

### SET GROUT

*Natural Aggregate, Nonshrink Grout*

#### NOTE TO SPECIFIER

The purpose of this suggested specification is to assist the specifier while developing a specification for the use of Master Builders *SET GROUT*. This specification has been prepared to be a part of a complete project specification. It has not been prepared to be a “stand alone” item. This document is not intended to be copied directly into project specification.

#### PART 1 - GENERAL

##### 1.01 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

##### 1.02 Summary

- A. This Section specifies a nonshrink, mineral aggregate grouting material formulated for applications requiring high strength with an appearance similar to concrete.
- B. This Product is a ready-to-use grout that hardens free from bleeding, settlement, or drying shrinkage when mixed, placed, and cured at a consistency - flowable, plastic, or stiff consistency.

##### 1.03 References

ASTM C 109-90	Test Method for Compressive Strength of Hydraulic Cement Mortars - Modified.
ASTM C 666-90	Test Method for Resistance of Concrete to Rapid Freezing and Thawing.
ASTM C 1090-88	Test Method for Measuring Changes in Height of Cylindrical Specimens from Hydraulic Cement Grout. Master Builders Technologies
ASTM C 1107-91	Standard Specification for Packaged Hydraulic-Cement Grout (Non-shrink).
ACI 351	Grouting for Support of Equipment and Machinery.

##### 1.04 System Performance Requirements

- A. Provide a natural-aggregate nonshrink grout that when cured produces the following properties:
  1. Compressive Strength for flowable consistency (ASTM C 109 Modified): 3000 psi (21 MPa) at 3 days, 7000 psi (48 MPa) at 28 days.
  2. Resistance to rapid freezing-thawing (ASTM C 666, procedure A): 300 cycles - min RDF 90%.
  3. Passes ASTM C-1107 at a flowable consistency.

**PART 2 - PRODUCTS**

**2.01 Materials**

- A. Natural-Aggregate, Nonshrink Grout: "SET GROUT" by Master Builders, Inc.
- B. Forms: Wood, metal, or plastic, of sufficient strength to withstand pressure from the grout.
- C. Water: Drinkable.
- D. Curing Compounds: MB 429, MASTERKURE<sup>®</sup> CR, MASTERKURE<sup>®</sup> 200W by Master Builders, Inc.

**PART 3 - EXECUTION**

**3.01 Surface Preparation**

- A. Mechanically remove unsound concrete to the limits indicated on the drawings.
- B. Remove at least 1/4 in.(6mm) of existing concrete facing and continue removal as required to expose sound aggregate.
- C. Thoroughly clean the roughened surface of dirt, loose chips, and dust. Maintain substrate in a saturated condition for 24 hours prior to grouting. Surface should be saturated surface dry at time of grouting.

**3.02 Metal Preparation**

- A. Clean baseplates and other metal surfaces to be grouted to obtain maximum adhesion. Remove loose rust and scale by grinding or sanding.

**3.03 Formwork**

- A. Comply with grout manufacturers recommendations for form construction. Construct forms to be liquid tight.

**3.04 Mixing**

- A. Comply with grout manufacturer's recommendations for mixing procedures.
- B. Adjust water temperature to keep mixed grout temperature in the range of 50 °F (10 °C) and 90 °F (32 °C) minimum/maximum.
  - 1. Use cold or iced water to extend working time in hot weather or in large placements.
  - 2. Use warm water in cold conditions to achieve minimum as mixed temperatures.

**3.05 Installation**

- A. Place grout mixture into prepared areas from one side to the other. Avoid placing grout from opposite sides in order to prevent voids. Work material firmly into the bottom and sides to assure good bond and eliminate voids.
- B. Ensure that foundation and baseplate are within maximum/minimum placement temperatures. Shade foundation from summer sunlight under hot conditions. Warm foundation when foundation temperature is below 50 °F (10 °C).
- C. Wet cure exposed shoulders for 48 hours followed by two coats of curing compound for best results. The minimal requirement is to wet cure until grout has reached final set, followed by two coats of curing compounds.

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