

GUIDE SPECIFICATION FOR SPEED-E-ROC™: RAPID SETTING ANCHORING CEMENT GROUT

SECTION 03 62 13

NON-METALLIC, NON-SHRINK GROUTING

Specifier Notes: This guide specification is written according to the Construction Specifications Institute (CSI) format. The section must be carefully reviewed and edited by the architect or engineer to meet the requirements of the project. Coordinate this section with other specification sections and the drawings.

Specifier Notes: W. R. MEADOWS® SPEED-E-ROC is a pourable, rapid setting and hardening, high strength, hydraulic cement compound designed for anchoring and grouting. SPEED-E-ROC has a controlled expansion system and is non-shrink. SPEED-E-ROC has an initial set time of 10-20 minutes at 77° F (25° C) and obtains 5000 psi (34.4 MPa) in one hour.

SPEED-E-ROC is ideally suited for anchoring rails, bolts, ties, dowels, reinforcing steel, threaded rods, sign posts, parking meters, street signs, and ornamental steelwork into concrete or any other properly prepared, porous, hardened material. SPEED-E-ROC may be used as a precision, highly flowable and rapid-setting grout for machinery base plates, bearing plates, and columns. It is suitable for industrial, residential, and civil engineering applications. The product can be used in either interior or exterior applications; freeze-thaw and wet environments.

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Application of pourable, rapid setting, hydraulic cement compound.

1.02 RELATED SECTIONS

Specifier Notes: Edit the list of related sections as required for the project. List other sections dealing with work directly related to this section.

- A. Section 03 30 00 - Cast-in-Place Concrete.
- B. Section 03 40 00 - Precast Concrete.

1.03 REFERENCES

- A. ASTM C109/C109M-02 - Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2" or [50 mm] Cube Specimens).
- B. ASTM C191-01a - Standard Test Method for Time of Setting of Hydraulic Cement by Vicat Needle.

1.04 SUBMITTALS

- A. Comply with Section 01 33 00 - Submittal Procedures.
- B. Submit manufacturer's product data and application instructions.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

- B. Store materials in a clean, dry area in accordance with manufacturer's instructions.
- C. Protect materials during handling and application to prevent damage or contamination.

1.06 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply below 35° F (1.7° C) or above 90° F (32° C) or when rain is imminent.
- B. Protect from conditions that may cause early water loss: high winds, low humidity, high temperature, and direct sunlight.
- C. Protect from freezing for a minimum of 24 hours.

PART 2 PRODUCTS

2.01 MANUFACTURER

- A. W. R. MEADOWS, INC., PO Box 338, Hampshire, Illinois 60140-0338. (800) 342-5976. (847) 683-4500. Fax (847) 683-4544. Web Site www.wrmeadows.com.

2.02 MATERIALS

- A. Performance-Based Specification:
 - 1. Hydraulic cement compound: one-component, rapid setting and hardening, non-shrink, non-metallic compound that has the following properties as determined by laboratory testing:

a. Compressive Strength, ASTM C109	4,000 psi (27.6 MPa) @ 1 hour
	5,800 psi (40 MPa) @ 24 hours
	7,100 psi (48.9 MPa) @ 28 days
b. Set Time, ASTM C191	10-20 minutes
c. Controlled Expansion	0.15%
- B. Proprietary-Based Specification:
 - 1. SPEED-E-ROC anchoring cement grout by W. R. MEADOWS.

2.03 ACCESSORIES

- A. Form Release Agent: DUOGARD® by W. R. MEADOWS.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine surfaces to receive hydraulic cement compound. Notify architect or engineer if surfaces are not acceptable. Do not begin surface preparation or application until unacceptable conditions have been corrected.

3.02 SURFACE PREPARATION

- A. Anchoring into Concrete or Porous Hardened Material
 - 1. Ensure substrate is structurally sound and free of any contaminants that will adversely affect bond of hydraulic cement compound.
 - 2. Drill anchoring hole with a rotary percussion hammer.
 - 3. Ensure the anchor hole diameter is no larger than what is required for the anchor bolt and washer assembly to slide to the bottom of anchor hole and rest on bolt head.

4. Prepared surface must be dust-free and have a sufficient profile to ensure adequate mechanical lock.
 5. Pre-soak repair zone prior to application of hydraulic cement compound to a saturated, surface dry (SSD) condition and free of standing water.
- B. Grouting
1. Ensure substrate is structurally sound and free of any contaminants that will adversely affect bond of hydraulic cement compound.
 2. Prepared surface must be dust-free and have a sufficient profile to ensure adequate mechanical lock.
 3. Presoak repair zone prior to application of hydraulic cement compound to a saturated, surface dry (SSD) condition and free of standing water.
 4. Ensure forming system is watertight to avoid excessive leakage of hydraulic cement compound from the grout zone.

3.03 APPLICATION

- A. Mix hydraulic cement compound in accordance with manufacturer's instructions.
- B. Mix complete units using a mortar-type mixer.
- C. Alternatively, for small repairs, mix in a clean vessel, using a variable-speed drill with a mixing paddle designed for mixing mortars (not liquids) at 400-600 rpm.
- D. Pour 3/4 of the liquid component into the mixer.
- E. Slowly add dry component while mixing.
- F. Adjust mix consistency using the remaining 1/4 of container of liquid component.
- G. Mix for 3-5 minutes or until homogeneous and lump-free, pourable mixture is obtained.
- H. Pour properly mixed product immediately into prepared area.
- I. Crown or shape hydraulic cement compound to allow water flow away from the anchor.
- J. Coat hydraulic cement compound with acrylic concrete sealer or penetrating sealer.

END OF SECTION