

GUIDE SPECIFICATION FOR SPECTRUM RE-KOTE TF: CONCRETE REPAIR MORTAR AND RESURFACER

SECTION 03 01 00

MAINTENANCE OF CONCRETE

Specifier Notes: This guide specification is written according to the Construction Specifications Institute (CSI) MasterFormat. 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® SPECTRUM RE-KOTE TF is a single-component, polymer-modified, rapid-hardening, cementitious concrete repair mortar designed for the renovation and resurfacing of deteriorated concrete surfaces. SPECTRUM RE-KOTE TF contains a migrating corrosion inhibitor. SPECTRUM RE-KOTE TF (trowel texture finish) is suitable for featheredge to ½" in depth as a cementitious resurfacer for concrete. SPECTRUM RE-KOTE TF is also a premium grade repair mortar designed to renovate and repair concrete from featheredge to 2" in depth depending on aggregate extension. The product is also suitable for vertical and overhead repairs.

SPECTRUM RE-KOTE TF is easy to use, versatile, and produces a horizontal repaired surface suitable for rubber-wheeled traffic. For overhead or vertical use, SPECTRUM RE-KOTE TF is an ideal choice for smoothing rough surfaces, repairing honeycombs, and dressing up bug holes. When mixed, the product's creamy consistency provides an excellent skim coating for swimming pools, concrete walls, balconies, etc. Because of its excellent bond strength, breathable properties, and freeze-thaw resistance, SPECTRUM RE-KOTE TF may be used for interior and/or exterior surfaces; below-, above- or on-grade.

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. This section specifies a single-component, polymer-modified, cementitious repair mortar and resurfacer suitable for horizontal, vertical and overhead applications.
- B. Repair mortar: Designed for repairs (discrete confined zones) from featheredge to ½" in depth. This product may be extended up to 50 percent by weight to perform repairs up to 2" in depth.
- C. Overlay system: Designed for horizontal overlays from featheredge to ½" maximum depth.

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.
- C. Section 03 50 00 – Cast Decks and Underlayment.
- D. Section 32 16 00 – Concrete Curbs and Gutters.

1.03 REFERENCES

- A. ACI 308: Recommended Practice for Curing Concrete.

- B. ASTM C109 / C109M-16a: Standard Test Method for Compressive Strength of Hydraulic Cement Mortars.
- C. ASTM C191: Standard Test Methods for Time of Setting of Hydraulic Cement by Vicat Needle.
- D. ICRI Technical Guide No. 310.2-1997.

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. Apply only when ambient and surface temperatures are 45° F (7.2° C) and rising.
- B. Do not apply if the ambient temperature is expected to fall below 45° F (7.2° C) within 24 hours after placement.
- C. Do not apply when rain is imminent.
- D. Protect from conditions that may cause early water loss: high winds, low humidity, high temperature and direct sunlight.

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. Website www.wrmeadows.com.

2.02 MATERIALS

- A. Cementitious mortar: a single-component, polymer-modified, cementitious-based, overlay repair mortar suitable for horizontal, vertical and overhead applications.
 - 1. Performance-Based Specification: The mortar shall be single-component, shrinkage compensating and shall be compatible with cementitious materials, brick, and block. Has waterproofing characteristics, which when cured, produces the following properties:
 - a. Compressive Strength (ASTM C109):

Minimum, 1 day:	2,500 psi (17.2 MPa)
28 day:	6,500 psi (44.8 MPa)
 - b. Set Times (ASTM C191):

Initial Set:	1 hour
Final Set:	2 hours

2. Proprietary-Based Specification:
 - a. SPECTRUM RE-KOTE TF by W. R. MEADOWS.

2.03 ACCESSORIES

- A. Concrete Curing Compound: 1100-CLEAR CURING COMPOUND, 2220-WHITE PIGMENTED CURING COMPOUND or VOCOMP®-30 CURING AND SEALING COMPOUND by W. R. MEADOWS INC.
- B. Crack Repair Epoxy: REZI-WELD™ LV STATE by W. R. MEADOWS.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine surfaces to receive cementitious mortar. 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. Prepare concrete substrate in accordance with ICRI Technical Guideline No. 310.2-1997.
- B. Mechanically roughen concrete substrate to an ICRI surface profile of CSP-4 or higher using mechanical means or high pressure water-blast (minimum 5,000 psi)
- C. Remove all unsound concrete to provide a profiled, porous surface.
- D. Completely remove all dirt, grease, oil, toppings, coatings, topical penetrating treatments or any other deleterious materials.
- E. Detail existing cracks, either by injecting or gravity feeding a low viscosity epoxy.
- F. Saturate concrete substrate to a saturated, surface dry (SSD) condition, free of standing water.

3.03 MIXING

- A. Pour 1.75 quarts of the recommended water into a clean mixing container.
- B. Slowly add powder and mix using a mortar-type mixer to a desired consistency by using up the remaining water as recommended for the application type.
- C. Mix for three minutes or until a lump-free and homogeneous consistency is obtained using a variable speed drill with a paddle mixer at 400-600 rpm.
- D. Mix only enough material that can be placed and finished in 30 minutes at 77° F (25° C).

3.04 REPAIR MORTAR APPLICATION

- A. Prime saturated, surface dry substrate with slurry coat of repair mortar consisting of two parts repair mortar to one part water.
- B. Allow slurry coat to become tacky.
- C. Apply repair mortar into repair zone substrate by compacting the material against the properly prepared and primed substrate.
- D. Finish surface with steel or wood float, or sponge float.

- E. Apply water-based curing compound immediately following application at manufacturer's recommended coverage rates. Alternatively cure repair mortar in accordance with ACI 308.

3.05 CONCRETE RESURFACER APPLICATION

- A. Apply a base-coat of the properly mixed and prepared surface either by a flexible blade, steel, wood float, or hopper sprayer, filling in the low or deteriorated areas.
- B. Apply the base coat to a maximum depth of 1/2" and allow to dry prior to application of topcoat. Drying times are typically 2 - 6 hours depending on environmental conditions.
- C. Proceed with placement of the topcoat may once the base-coat has dried, removing any high spots or rough areas of the base-coat using a rubbing stone.
- D. Ensure the base-coat has not been contaminated with dirt, oil, greases, paints, or any material that will hinder bonding of the topcoat. Clean areas that have been contaminated prior to proceeding.
- E. Pre-dampen the base-coat and apply topcoat by flexible blade trowel or hopper sprayer to a uniform, smooth surface.
- F. Broom the topcoat within 10 minutes of placement if a broom finish is required.
- G. Apply a water based curing and sealing compound in two coats according to manufacturer's published instructions and coverage rates.

END OF SECTION