

GUIDE SPECIFICATION FOR 1100: RESIN-BASED, WATER EMULSION CONCRETE CURING COMPOUND

SECTION 03 39 23

MEMBRANE CONCRETE CURING

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: 1100 resin-based, water emulsion concrete curing compound is formulated from hydrocarbon resins and may be used on interior, exterior, vertical, and horizontal concrete surfaces. Once applied, 1100 forms a liquid membrane that retains an optimum amount of water present in freshly placed concrete to allow complete hydration of the cement. **NOTE:** After approximately four weeks, the membrane begins to chemically break down. When the curing cycle is complete, the membrane will eventually dissipate from the surface. This process usually takes another 3 - 5 weeks under normal traffic, exposure to UV, and weathering conditions. 1100 meets maximum volatile organic compound (VOC) content limits of 350 g/L for concrete curing compounds as required by the U.S. EPA Architectural Coatings Rule.

1100 has been used on both interior and exterior applications where paint, resilient tile, or resilient flooring was applied later. Because of the wide variety of paints and adhesives for carpeting and resilient tile in use, contact the manufacturer of the flooring system for application approval over resin-type curing compounds. A small test application is also recommended.

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Surface preparation.
- B. Application of resin-based, water-based concrete curing 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 03300 - Cast-in-Place Concrete.

1.03 REFERENCES

- A. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
- B. AASHTO M 148 - Liquid Membrane Forming Compounds for Curing Concrete.

1.04 SUBMITTALS

- A. Comply with Section 01330 - 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. Keep product from freezing.
- D. Avoid direct contact with this product as it may cause mild to moderate irritation of the eyes and/or skin.
- E. Protect materials during handling and application to prevent damage or contamination.
- F. Do not mix with any compound containing solvent.
- G. Avoid aggressive mixing as foaming may occur.

1.06 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply product when air, surface, or material temperatures are expected to fall below 40° F (4° C) within four hours of expected application.
- B. Do not apply to frozen concrete.
- C. Do not use on dense or porous surfaces.

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. Performance Based Specification: Concrete curing compound shall be a water base, hydrocarbon resin curing compound meeting maximum volatile organic compound (VOC) content limits of 350 g/L for concrete curing compounds as required by the U.S. EPA Architectural Coatings Rule. Curing compound shall meet the following requirements:
 - 1. ASTM C309, Type 1, Class B.
 - 2. AASHTO M 148, Type 1, Class B.
- B. Proprietary Based Specification: 1100 Concrete Curing Compound by W. R. MEADOWS.

PART 3 EXECUTION

3.01 EXAMINATION

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

3.02 SURFACE PREPARATION

- A. Protect adjacent surfaces not designated to receive curing compound.

- B. Clean and prepare surfaces to receive curing compound in accordance with manufacturer's instructions.
- C. Concrete surface water should be dissipated when used on new concrete
- D. Concrete surfaces should not be marred by walking workers.

3.03 APPLICATION

- A. Apply curing compound in accordance with manufacturer's instructions.
- B. Ensure product is mixed for optimum performance. Avoid aggressive mixing as foaming may occur.
- C. Use sprayer with a Chapin 1949 sprayer that produces a flow rate of 0.5 GPM (1.9 LPM) per minute at a pressure of 40 psi (.276 MPa).
- D. Avoid puddling in low areas.

3.04 PROTECTION

- A. Restrict foot traffic for at least four hours; 12 hours is preferable.

END OF SECTION