

**SECTION 07 14 16
COLD FLUID-APPLIED WATERPROOFING**

PART 1 – GENERAL

1.1 SCOPE

- A. Provide all of the labor, materials, equipment and services to furnish and install the cold applied, liquid waterproofing membrane.

1.2 REFERENCES

- A. ASTM D 146-97 - Standard Test Methods for Sampling and Testing Bitumen-Saturated Felts and Fabrics Used in Roofing and Waterproofing.
- B. ASTM D 412-98a (2002) e1 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers-Tension.
- C. ASTM E 96-00e1 (Method B) - Standard Test Methods for Water Vapor Transmission of Materials.
- D. ASTM D 1228 - Methods of Testing Asphalt Insulating Siding Surfaced with Mineral Granules.
- E. ASTM C 836 - Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course.

1.3 SUBMITTALS

- A. Submit manufacturer's product data and application instructions.

1.4 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. Store adhesives and primers at temperatures of 40oF (5oC) and above to facilitate handling.
- D. Do not store at temperatures above 90oF (32oC) for extended periods.
- E. Protect materials during handling and application to prevent damage or contamination.

1.5 ENVIRONMENTAL REQUIREMENTS

- A. Product not intended for uses subject to abuse or permanent exposure to the elements.
- B. Do not apply membrane when air, material, or surface temperatures are expected to fall below 40 deg F within 4 hours of completed application.
- C. Do not apply membrane if rainfall is forecast or imminent within 24 hours.

- D. Do not apply to frozen concrete.
- E. Membrane can be applied to green concrete.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. Approved manufacturers:
 - 1. W.R. Meadows, Inc.
 - 2. Sonneborn
 - 3. W.R. Grace Construction

2.2 MATERIALS

- A. Waterproofing Membrane: a single component polymer-modified, cold applied, liquid waterproofing membrane.
 - 1. Performance: Waterproofing membrane shall have the following properties as determined by laboratory testing:
 - a. Shore A Hardness, ASTM C 836, 40-50
 - b. Tensile Strength, ASTM D 412, 15 psi (0.10 Mpa)
 - c. Elongation, ASTM D 12, 1500 %
 - d. Water Vapor Permeability, ASTM E 96 0.03 perm s @ 45 mils (dry)
 - e. Water Vapor Transmission, ASTM E 96 0.01 gram s/m 2/hr @ 45 mils (dry)
 - f. Water Absorption, ASTM D 1228, 0.7 % @ 72 hours
 - g. Flexibility, ASTM D 146 (2" mandrel), Pass @ -20oF (-29oC)
 - h. Viscosity, uncured @ 72oF (22oC), 10,000-15,000 CPS

2.3 ACCESSORIES

- A. Concrete Repair Materials: Provide per manufacturer's recommendations.
- B. Waterproofing Protection Course: Provide per manufacturer's recommendations.
- C. Rolled Matrix Drainage System: Provide per manufacturer's recommendations.

PART 3 - EXECUTION

3.1 EXAMINATION

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

3.2 SURFACE PREPARATION

- A. Protect adjacent surfaces not designated to receive waterproofing.
- B. Clean and prepare surfaces to receive waterproofing in accordance with

manufacturer's instructions.

- C. Do not apply waterproofing to surfaces unacceptable to manufacturer.
- D. Concrete surfaces must be clean, relatively smooth and free of standing water. E. Patch all holes and voids and smooth out any surface misalignments.
- F. Remove and patch all concrete form ties.
- G. Apply primer coat of membrane diluted 4:1 with water if necessary to reduce blistering on concrete surfaces at a coverage rate of 100-150 ft²/U.S. gal (13.9 m²/3.78 L) by spraying or rolling.
- H. Allow primer coat to dry before proceeding to membrane application.

3.3 APPLICATION

- A. Apply waterproofing membrane system in accordance with manufacturer's instructions.
- B. Thoroughly mechanically mix membrane prior to application.
- C. Apply membrane by spray, roller or brush at a minimum coverage rate of 20-25 ft²/U.S. gal (1.9-2.3m²/3.78L) providing a thickness of 60 wet mils.
- D. Frequently inspect surface area with a wet mil gauge to ensure consistent thickness.
- E. Work material into any fluted rib forming indentations.
- F. Cured thickness of membrane should be 45 mils.
- G. Avoid use of products that contain tars, solvents, pitches, polysulfide polymers, or PVC materials that may come into contact with waterproofing membrane system.

3.04 PROTECTION

- A. Protect membrane with application of waterproofing protection course, drainage board, or other approved material.
- B. Backfill immediately using care to avoid damaging waterproofing membrane system.

- END OF SECTION -