

SECTION 07 14 00
FLUID-APPLIED WATERPROOFING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Fluid applied membrane waterproofing.
- B. Cant strips and other accessories.
- C. Drainage panels and Protection boards ~~and _____~~.

1.2 RELATED REQUIREMENTS

- A. Section 03 30 00 - Cast-in-Place Concrete: Concrete substrate.
- B. Section 04 20 00 - Unit Masonry: Masonry joints prepared to receive flashings.
- C. Section 07 21 13 - Thermal Insulation: Insulation used for protective cover.
- D. Section 07 60 00 - Flashing and Sheet Metal: Metal parapet covers, copings, and counter flashings.
- E. Section 07 92 00 - Joint Sealants: Sealing moving joints in waterproofed surfaces that are not part of work in this section.

1.3 REFERENCE STANDARDS

- A. 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency.
- B. ASTM C836/C836M - Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use With Separate Wearing Course.
- C. ASTM C1306 - Standard Test Method for Hydrostatic Pressure Resistance of a Liquid-Applied Waterproofing Membrane.
- D. ASTM D2939 - Standard Test Methods for Emulsified Bitumens Used As Protective Coatings; 2003.
- E. ASTM E96/E96M - Standard Test Methods For Water Vapor Transmission of Materials.
- F. ASTM E154/E154M - Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.
- G. ICC-ES AC29 - Acceptance Criteria for Cold, Liquid-Applied, Below-Grade, Exterior Dampproofing and Waterproofing Materials; ICC Evaluation Service, Inc..

1.4 SUBMITTALS

- A. Submit in accordance with 01 33 23 - Shop Drawings, Product Data, and Samples.
- B. Product Data: Provide data for membrane, surface conditioner, flexible flashings, joint cover sheet, and joint and crack sealants.
- C. Shop Drawings: Indicate special joint or termination conditions and conditions of interface with other materials.
- D. Certificate: Certify that products meet or exceed specified requirements.

- E. Manufacturer's Installation Instructions: Indicate special procedures, perimeter conditions requiring special attention, and acceptable installation temperatures.
- F. Warranty:
 - 1) Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
 - 2) Submit installer's certification that installation complies with all warranty conditions for the waterproof membrane.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacture of fluid-applied waterproofing membranes with three years experience.

1.6 FIELD CONDITIONS

- A. Maintain ambient temperatures above 40 degrees F (5 degrees C) for 24 hours before and during application and until cured.

1.7 WARRANTY

- A. Contractor shall correct defective Work within a five year period after Date of Substantial Completion; remove and replace materials concealing waterproofing at no cost to Owner.
- B. Provide five year manufacturer warranty for waterproofing failing to resist penetration of water, ~~and _____~~, except where such failures are the result of structural failures of building. Hairline cracking of concrete due to temperature change or shrinkage is not considered a structural failure.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Cold-Applied Acrylic Polymer Modified Waterproofing Manufacturer:
 - 1) DECO Products, Inc.; DECO 20 Seal: www.decoproducts.com.

2.2 WATERPROOFING APPLICATIONS

- A. Cold-Applied Acrylic Polymer Modified Waterproofing: Use **at all exterior below grade locations**.
 - 1) Cover with drainage panel.

2.3 MEMBRANE AND FLASHING MATERIALS

- A. Acrylic Waterproofing: Water-based, 100 percent acrylic.
 - 1) Cured Thickness: 17 mils (0.017 inches) (0.43 mm), minimum.
 - 2) Suitable for installation over concrete substrates.
- B. Flexible Flashings: Type recommended by membrane manufacturer.

2.4 ACCESSORIES

- A. Surface Conditioner: ~~_____ type~~, Compatible with membrane compound; as recommended by membrane manufacturer.
- B. Sealant for Joints and Cracks in Substrate: Type compatible with waterproofing material and as recommended by waterproofing manufacturer.
- C. Drainage Panel: 5/16 inch (8 mm) thick formed plastic, embossed with cover sheet; Delta Drain 2000 manufactured by Cosella-Dörken Products, Inc; www.cosella-dorken.com.
- D. Cant Strips: Premolded composition material.
- E. Counterflashings: As recommended by membrane and protection board manufacturer.

PART 3 EXECUTION**3.1 EXAMINATION**

- A. Verify existing conditions before starting work.
- B. Verify substrate surfaces are free of frozen matter, dampness, loose particles, cracks, pits, projections, penetrations, or foreign matter detrimental to adhesion or application of waterproofing system.
- C. Verify that substrate surfaces are smooth, free of honeycomb or pitting, and not detrimental to full contact bond of waterproofing materials.
- D. Verify that items that penetrate surfaces to receive waterproofing are securely installed.

3.2 PREPARATION

- A. Protect adjacent surfaces not designated to receive waterproofing.
- B. Clean and prepare surfaces to receive waterproofing in accordance with manufacturer's instructions. Vacuum substrate clean.
- C. Do not apply waterproofing to surfaces unacceptable to manufacturer.
- D. Fill non-moving joints and cracks with a filler compatible with waterproofing materials.
- E. Seal moving joints and joints with sealant, not rigid filler, using procedures recommended by sealant and waterproofing manufacturers.
- F. Prepare building expansion joints as indicated on drawings.
- G. Install cant strips at inside corners.

3.3 INSTALLATION

- A. Apply waterproofing in accordance with manufacturer's instructions to specified minimum thickness.
- B. Conform to NRCA Waterproofing and Dampproofing Manual drawing details as noted:
- C. Apply primer or surface conditioner at a rate recommended by manufacturer. Protect conditioner from rain or frost until dry.
- D. At joints and cracks less than 1/2 inch (13 mm) in width including joints between horizontal and vertical surfaces, apply 12 inch (300 mm) wide strip of joint cover sheet.
- E. At joints from 1/2 to 1 inch (13 to 25 mm) in width, loop joint cover sheet down into joint between 1-1/4 and 1-3/4 inch (31 and 44 mm). Extend sheet 6 inches (150 mm) on either side of expansion joint.
- ~~F. Extend membrane over cants and up intersecting surfaces at membrane perimeter minimum 6 inches (150 mm) above horizontal surface for first ply and _____ inches (_____ mm) at subsequent plies laid in shingle fashion.~~
- F. Apply extra thickness of waterproofing material at corners, intersections, and angles.
- G. Install flexible flashings and seal into waterproofing material. Seal items penetrating through membrane with flexible flashings.
- H. Seal membrane and flashings to adjoining surfaces. Install termination bar at all edges. Install counterflashing over all exposed edges.

3.4 INSTALLATION - DRAINAGE PANEL and PROTECTION BOARD

- A. Place drainage panel directly against membrane, butt joints, place to encourage drainage downward. Scribe and cut boards around projections, penetrations, and interruptions.

3.5 FIELD QUALITY CONTROL

- A. On completion of horizontal membrane installation, dam installation area in preparation for flood testing.
- B. When area is proven watertight, drain water and remove dam.

3.6 PROTECTION

- A. Do not permit traffic over unprotected or uncovered membrane.

END OF SECTION