

Below Grade Waterproofing

**Section 07120 or 07 16 13
Waterproofing Membrane**

F/C MEMBRANE

PART I: GENERAL

1.01 DESCRIPTION

Provide labor, materials, equipment and supervision necessary to complete the application of product to existing substrate.

1.02 QUALITY ASSURANCE

Products shall be installed by a trained applicator with a minimum of five years experience and meet the requirements of the specifier.

1.03 SUBMITTALS

- A. Manufacturer's current product data bulletin.
- B. The trained applicator shall prepare a test panel of the application as a submittal for approval of proper application and adhesion.
- C. The trained applicator shall submit to the specifier a list of five projects that he has completed within the last five years, exhibiting the applicator's skills. The list shall include project name, location, and description of work and completion date.

1.04 PRODUCT DELIVERY, STORAGE & HANDLING

- A. Deliver all products and all accessories in original labeled, sealed, and undamaged containers or bundles.
- B. Store all products in accordance with manufacturer's printed instructions.
- C. Handle products in accordance with manufacturer's printed instructions.

1.05 JOB CONDITIONS

All products shall be applied at substrate and ambient temperatures of 40°F or above. A minimum temperature of 40°F shall be maintained 24 hours after completion of work. Protect products from weather and other damage for a period of 24 hours after installation. Do not apply products to frozen surfaces.

1.06 COORDINATION & SCHEDULING

The work requires close coordination with related sections and trades.

PART II: PRODUCTS

2.01 MANUFACTURERS

The following manufacturers are approved for the project.

Conproco Corporation

2.02 MATERIALS

F/C Membrane: A polymer modified, flexible membrane for positive side waterproofing of concrete and masonry.

2.03 PERFORMANCE CHARACTERISTICS

General Physical Properties: The products shall meet or exceed the following performance standards:

Physical state and appearance		Light gray powder
Base		Portland cement
pH	Wet mix	>12
Water/cement ratio		0.55
Durometer hardness	ASTM D2240	60 – 70
Water penetration and leakage	ASTM E514	100% reduction
Resistance to hydrostatic pressure	CRD-48-73	Passes at 46 ft. (20 psi) maximum of test
Carbon-arc weathering	ASTM G152	2000 hours – no effect

PART III: EXECUTION

3.01 GENERAL

- A. Installation shall be performed strictly in accordance with manufacturer's current product data bulletin.
- B. Examine substrates and conditions under which materials will be installed. Do not proceed with installation until unsatisfactory conditions are corrected.
- C. Coordinate installation with adjacent work to ensure proper sequence of construction. Protect adjacent areas and landscaping from contact due to mixing, handling, and application of materials.

3.02 SURFACE PREPARATION

- A. Prior to application remove any dirt, debris, grease, oil or other contaminants that will inhibit proper bond.
- B. Inspect the substrate to verify it is free of ridges and sharp projections.
- C. Cracks: Visible hairline cracks (up to 1/16") shall be cleaned and pre-stripped with one coat of F/C Membrane a minimum distance of 2" on each side of crack to yield a total thickness of 40-50 mils. Large cracks (over 1/8" in width) shall be filled with suitable sealant. Detail sealed cracks with base coat material a distance of 2" on each side of joint to yield a total thickness of 40-50 mils and embed the reinforcing mesh.
- D. Control Joints: Seal secondary control joints with a polyurethane sealant. Sealant shall be applied to inside area of joint. Detail sealed joints with base coat material a distance of 2" on each side of joint to yield a total thickness of 40-50 mils and embed the reinforcing mesh.

3.03 MIXING

- A. Mechanically mix using a low speed drill (400 – 600 rpm) and mixing paddle or mortar mixer.
- B. Pour 5 quarts of potable water into a clean mixing vessel and slowly add all of the powder. Add up to 2 pints of additional water for workability.
- C. Mix continuously for 3 minutes to a uniform consistency.
- D. Allow to "breathe" for 1 minute. This will improve workability and open time.
- E. Do not over mix, as this will entrain excess air.

F. Do not retemper.

3.04 APPLICATION

- A. Apply with roller, brush, spray or trowel in an even coat to achieve desired appearance. Do not exceed 50 mils. as thicker applications will cause mud cracking.
- B. Extend membrane onto the horizontal surface.
- C. Brushing or back rolling to ensure proper bond.

3.05 CURING

Protect from direct sunlight, wind, rain, and frost during the curing period.

3.06 JOB SITE CLEANUP

- A. Material left over at the job site by the approved applicator shall be removed.
- B. All adjacent surfaces and materials shall be cleaned.
- C. Cured material must be removed mechanically.
- D. Clean tools and equipment with water immediately after use.

*****END OF SECTION*****



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