

Below Grade Waterproofing

Section 07145 or 07 16 00
Cementitious Waterproofing

FOUNDATION COAT

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 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

Foundation Coat: Fiber-reinforced, cementitious coating for positive-side, below-grade waterproofing.

2.03 PERFORMANCE CHARACTERISTICS

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

Physical state and appearance		Gray or white powder with glass fibers		
Base		Portland cement		
PH	Wet mix	>12		
Water/cement ratio		0.55		
Setting time by vicat needle	ASTM C191	Initial 60 minutes – Final 270 minutes		
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		
Length change	ASTM C157	<500 μ strains @ 28 days		
		7 Days	14 Days	28 Days
Compressive strength – psi	ASTM C109	3325	3500	4240
With 2 quarts of <u>K-88 Admix</u>		5550	6050	6490
Tensile strength – psi	ASTM C307	560	620	680
Allowable design stress based on gross area of the CMU (IBC)				
Compressive stress – psi				
Standard block		45		
Ground block		85		
Shear stress		10		
Tensile stress in flexure, vertical span – psi		18		

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 of the waterproofing membrane remove any dirt, debris, grease, oil or other contaminants on the substrate that will inhibit bond.
- B. Repair spalled areas, static cracks and voids with Conpro Set or Foundation Coat.
- C. Substrate should have open-pored and textured surface.
- D. Saturate substrate with clean water (saturated surface dry/SSD). Walls should be wet when Foundation Coat is applied.
- E. For best results on concrete grind or abrasive blast (CSP 3). Refer to ICRI Surface Preparation Guide 03732 for information about Concrete Surface Profile (CSP).

3.03 MIXING

- A. Place 5 1/4 quarts of potable water in a clean mixer and blend in one 50 lb. bag of Foundation Coat. Adjust water addition to obtain mortar like consistency.
- B. Mix continuously for 3 minutes with a mortar mixer or low-speed drill with paddle.
- C. Allow to breathe for 1 minute and remix for 1 minute.
- D. Do not retemper

3.04 APPLICATION

- A. Concrete block:
 - 1. Spray the exterior of the wall with water until it is damp. Apply Foundation Coat to the exterior of the dampened wall with a steel trowel to a minimum thickness of 1/8".
 - 2. Mist the finished wall with water to promote proper cure.
- B. Cast concrete:
 - 1. Mix Foundation Coat replacing 1 quart of mixing water with 1 quart of K-88 Admix.
 - 2. Mist wall with water to a surface saturated dry condition.
 - 3. Apply Foundation Coat with a steel trowel to a minimum thickness of 1/8".

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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