

Below Grade Waterproofing

Section 07145 or 07 16 00
Negative Side Waterproofing

CONPRO SEAL

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 area on the structure 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

Conpro Seal: A brush-applied, cement-based negative side, below grade waterproofing. Available in gray or white.

2.03 PERFORMANCE CHARACTERISTICS

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

Physical state and appearance		Fine, gray or white powder		
Base		Portland cement		
pH	Wet mix	>12		
Water/cement ratio		0.65		
Density	Wet mix	93 lbs./ft. ³		
Water penetration and leakage	ASTM E514	100% reduction		
Resistance to hydrostatic pressure	CRD-48-73	80% reduction in leakage on 12 ft. of water – 2 inch concrete block		
		7 Days	14 Days	28 Days
Compressive strength – psi	ASTM C109	5500	6250	6500
Tensile strength – psi	ASTM C307	460	560	680

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. Grind or abrasive blast (CSP 3) to achieve an open-pored surface. This is essential to allow the crystalline structure to grow into the cement capillaries. Refer to ICRI Surface Preparation Guide 03732 for information about Concrete Surface Profile (CSP).
- C. Stop active leaks with Conpro Plug.
- D. Stop weeping water with Conpro Stop.
- E. Saturate with clean water, (saturated surface dry/SSD). Wall should be wet when Conpro Seal is applied.

3.03 MIXING

- A. Mechanically mix using a low speed drill (400 – 600 rpm) and mixing paddle or mortar mixer.
- B. Pour 6 quarts of potable water into a clean mixing vessel and slowly add all of the powder. Substitute 1 quart of K-88 Admix for 1 quart of water to improve performance and curing.
- C. Mix continuously for 3 minutes to a uniform, lump-free, slurry-like consistency.
- D. Add up to 2 pints of additional water if needed.
- E. Allow to “breathe” for 1 minute. This will improve workability and open time.

F. Do not over mix, as this will entrain air.

G. Do not re-temper.

3.04 APPLICATION

A. At the time of application, surfaces should be saturated surface dry (SSD) but hold no standing water.

B. Clean and pre-stripe non-structural cracks (up to 1/16 inch) with one 4 inch wide, 50 mils. application of material.

C. Dynamic cracks, joints, and transitions (wall-to-slab) must be properly detailed with a closed cell backer rod and polyurethane sealant. Refer to SWRI Sealants, The Professionals' Guide.

D. Apply 4 – 6 inch wide stripe of material over cured sealant. Embed mesh fabric while material is plastic.

E. Apply a 50 mils. coat over the entire surface with a stiff bristle brush or spray.

F. Work the first coat into the substrate using a circular or figure 8 pattern to fill all voids and pores.

G. Do not exceed 60 mils. per coat.

H. Apply a second coat once the first coat is thumb-print hard.

3.05 CURING

Protect repair 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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