

**SECTION 07 17 50  
WATER REPELLENTS**

**PART 1 - GENERAL**

**1.1 DESCRIPTION**

Water repellent coating for external and internal masonry surfaces.

**1.2 RELATED WORK**

Concrete masonry units: Section 04 20 00, UNIT MASONRY.

**1.3 MANUFACTURER'S QUALIFICATIONS**

A. Manufacturer Qualifications: Company with minimum 15 years of experience in manufacturing of specified products.

**1.4 APPLICATOR'S QUALIFICATIONS**

A. Company with minimum of 5 years experience in application of specified products on projects of similar size and scope, and is acceptable to product manufacturer.

**1.5 APPLICATOR'S QUALIFICATIONS**

A. Publications listed below form a part of this specification to the extent referenced. Publications are referenced in the text by the basic designation only.

B. American Society for Testing and Materials (ASTM):  
C666.....Test Methods for Freeze-Thaw Durability.  
C672.....Scaling Resistance.  
D658-44.....Abrasion Resistance

**1.6 SUBMITTALS**

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Product Data: Provide data for material description, physical properties, recommended storage conditions, shelf life, precautions, and joint and crack sealants, with temperature range for application of water-repellent impregnating agent.
- C. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.
- D. Certificates:
  - 1. Compliance of material with specification requirements.
  - 2. Manufacturer's qualifications as specified.
  - 3. Applicator's qualifications as specified.

**1.7 DELIVERY**

Deliver materials to job site in original sealed containers identified with manufacturer's name and brand.

**1.8 WARRANTY**

A. Provide ten-year manufacturer's warranty.

**PART 2 - PRODUCTS****2.1 Masonry Water-Repellent Coating:**

- A. High-performance, water-based, VOC-compliant, clear silane/siloxane sealer used for dense, vertical masonry brick and concrete masonry surfaces.
- B. Sealer shall have the following minimum performance:
  - 1. Flash Point, ASTM D3278: Greater than 212 degrees F (100 degrees C).
  - 2. Leakage on Brick Wall, ASTM E514: Greater than 94.8 percent reduction.
  - 3. Moisture-Vapor Transmission Rate, ASTM D1653, 75 degrees F (24 degrees C):
    - a. 49.8 g/sf/24 hours.
    - b. 86 percent of untreated substrate.
  - 4. Accelerated Weathering, QUV, 1,500 hours: No change.
  - 5. Solids and Active Ingredients: 12 percent by weight.
  - 6. Specific Gravity: 1.0.
  - 7. Density: 8.3 lbs per gal.
  - 8. Penetration, average depth, depending upon substrate: 1/16 to 3/8 inch (1.6 to 9.5 mm).
  - 9. VOC Content: Less than 2.09 lbs per gal (250 g/L), less water and exempt solvents.

**PART 3 - EXECUTION****3.1 EXAMINATION**

A. Verify exterior and interior substrate surfaces are durable; free of frozen matter, dampness, loose particles, cracks, pits, projections, or foreign matter detrimental to application of water-repellent system.

**3.2 INSTALLATION**

- A. Protect adjacent surfaces not designated to receive waterproofing.
- B. As a minimum, clean and prepare surfaces to receive waterproofing by removing all loose and flaking particles, grease and laitance with the use of a stiff bristle push broom and or washing. Care should be taken not to inject water into the substrate during washing.
- C. Make all necessary repairs to existing substrate.

- D. Do not apply waterproofing to surfaces unacceptable to manufacturer. Seal any damaged mortar, cracks and joints with patching material approved by the water repellent manufacturer.

**3.3 APPLICATION**

- A. Spray or brush-apply coating in accordance with manufacturer's instructions.
- B. Thoroughly apply coating materials into joints, crevices, and open spaces.
- C. Apply two coats of water-repellent coating at a total rate of 100-sq. ft/gal (2.3 sq. m/L).
- D. Apply water repellent material by low pressure (less than 15 psi. / 103.4 kPa) spray in a wet on wet fashion allowing coating to run down surface 12-15 inches (30.48- 38.1 cm). First coat should not dry before second coat is applied.

**3.4 CLEANING**

- A. Immediately clean adjacent work not scheduled to receive water-repellent coating in accordance with manufacturer's instructions.

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