

**SECTION 07 19 00**

**WATER REPELLENT COATING**

**PART 1 GENERAL**

**1.1 DESCRIPTION**

- A. Scope of work is indicated on drawings. The terms "seal," "sealed," "sealcoat" or "water repellent coating" as indicated in the Contract Documents, all refer to the work of this Section.

**1.2 RELATED WORK**

- A. Joint Sealers: Section 07 92 00.

**1.3 SUBMITTALS**

- A. Product Data: Catalog sheets, specifications, and installation instructions for each material specified.
- B. MSDS Sheets.
- C. Samples: Liquid water repellent; one quart.
- D. Quality Control Submittals:
  - 1. Test Reports: Laboratory certified test results.

**1.4 QUALITY ASSURANCE**

- A. Regulatory Requirements: Products submitted as equals for Type 1 water repellent shall be tested in accordance with ASTM E 514, modified as follows:
  - 1. Change paragraph 5.1 to read as follows:
    - 5.1 Test Specimens: single-wythe panels; 3 of ASTM C 216, Grade MW, Type FBS facing bricks and 3 of ASTM C 90, Type I, Grade N concrete masonry units laid in ASTM C 270, Type S mortar.
  - 2. Add the following Paragraphs to Section 7:
    - 7.1.7 Determine the average maximum rate of leakage for the test specimens prior to applying water repellent material.
    - 7.1.8 Thoroughly dry the test specimens and apply a single coat of the water repellent material at the rate of application prescribed by the manufacturer's written instructions. Use a low pressure (garden type) sprayer to apply coating.

## Replace Roof Phase V James J. Peters Medical Center

7.1.9 Determine the average maximum rate of leakage for the coated test specimens. Compute the percentage of reduction of leakage.

7.1.10 Expose coated test specimens to an unprotected outdoor exposure for a period of 6 months.

7.1.11 Thoroughly dry the test specimens and retest for the average maximum rate of leakage and compute the percentage of reduction of leakage.

7.1.12 Report average maximum rate of leakage of the uncoated and coated test specimens. Report the percentage of reduction of leakage of the coated test specimens.

3. Change Section 8 to read as follows:

8.1 The water repellent material shall have reduced the maximum rate of leakage by 90 percent or more after initial coating and when retested after 6 months.

4. Delete Paragraph 9.1.5.

B. Field Example:

1. Provide a sample application of not less than 100 sq ft to determine the application method most suitable for the existing substrate conditions and to assure that no staining or discoloration occurs.
2. Select a test area that most accurately represents the actual substrate conditions.
3. Notify the V.A. Resident Engineer in writing 5 days in advance of the proposed dates and time for the sample application.
4. After curing of the sample application, conduct water spray test to verify that the treatment repels moisture.
5. Do not proceed with the Work until the sample application has been approved by the V.A. Resident Engineer in writing.

### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the job site in original sealed containers, clearly marked with manufacturer's name, brand, and material description.

## Replace Roof Phase V James J. Peters Medical Center

- B. Store materials in conformance with the manufacturer's written instructions.

### 1.6 PROJECT CONDITIONS

- A. Do not apply water repellent on surfaces that contain moisture or frost. Comply with the manufacturer's written requirements for temperature and humidity conditions.
- B. Do not apply water repellent until restoration of the substrate has been completed and joint sealants applied.

## PART 2 PRODUCTS

### 2.1 MATERIALS

- A. Liquid Water Repellent
  - 1. Product Description: A non-toxic, silane/ siloxane-based, breathable, clear water repellent intended for single-coat application, that, after cure, leaves no visible surface residue, color, or gloss. Silicone or acrylic based materials are not acceptable.
  - 2. Type 1 Water Repellent: Enviroseal "Clear Double 7 for Brick", Hydrozo Coatings Company, Lincoln, NE. Provide all of manufacturer's V.O.C. compliant products which are recommended for the various materials applications; or V.A. Contracting Officer-approved equal.

## PART 3 EXECUTION

### 3.1 PREPARATION

- A. Protection: Protect existing construction not required to be treated.
- B. Surface Preparation: Comply with manufacturer's printed recommendations; including but not limited to removal of existing water repellents; and the following:
- C. All mortar and cement-based products shall cure for at least 28 days prior to commencing application of Water Repellent Coating.
- D. Verify the removal of dust, dirt, oil, efflorescence, loose particles, and all other foreign matter. Verify that all prepared surfaces have dried thoroughly.
- E. Commencement of application of Water Repellent Coating means acceptance of existing conditions.

## Replace Roof Phase V James J. Peters Medical Center

### 3.2 APPLICATION

- A. Apply one coat of water repellent. Apply material in accordance with the manufacturer's printed instructions and the approved field example.
- B. Apply water repellent material by low pressure airless spray method unless otherwise approved by the V.A. Resident Engineer.
- C. After curing of the water repellent, test all treated surfaces with a water spray. Dry and re-coat all areas that show water absorption. If necessary, repeat the application until degree of improved water repellency has been accepted by the V.A. Resident Engineer.

### 3.3 CLEANING

- A. Remove protective materials after water repellent Work has been completed.
- B. Restore all adjacent surfaces, defaced by the Work, to conditions equal to or better than those existing prior to the start of water repellent applications.

END OF SECTION