

SPECIAL SPECIFICATION

SECTION 07190S

WATER REPELLENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Water repellent coating applied to exterior and interior concrete stone surfaces.

1.02 RELATED SECTIONS

- A. Section 03300S-Cast-In-Place Concrete: Concrete surfaces.
- B. Section 07900S - Joint Sealants.

1.03 REFERENCES

- A. ASTM D 1653 - Water Vapor Transmission of Organic Coating Films.
- B. ASTM D 5703 - Preparatory Surface Cleaning for Clay Brick Masonry.
- C. ASTM E 514 - Water Penetration and Leakage Through Masonry.
- D. FS SS-W-110 - Water Repellent, Colorless Silicone, Resin Base.

1.04 SYSTEM DESCRIPTION

- A. Applied Penetrant: Material to restrict moisture absorption in material being treated as recommended by manufacturer for specific substrate.

1.05 SUBMITTALS

- A. Product Data: Submit details of product description, tests performed, limitations to coating, and chemical properties including percentage of solids.
- B. Manufacturer's Installation Instructions: Submit special procedures and conditions requiring special attention, and cautionary procedures required during application.
- C. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- B. Applicator Qualifications: Company specializing in performing the Work of this section with minimum three years documented experience and approved by manufacturer.

1.07 MOCK-UP

- A. Prepare nominal surface 36 inch by 36 inch in size.
- B. Prepare brick surface 36 inch by 36 inch in size, in accordance with ASTM D 5703.
- C. Locate where directed.
- D. Testing: Test mock-up with 5/8-inch garden hose with spray nozzle located approximately 10 feet from wall and aimed upward so water strikes at 45 degree downward angle.
 - 1. Do not begin testing until mock-up has fully cured, minimum 20 days unless longer period recommended by manufacturer.
 - 2. Run water continuously for minimum three hours and observe back side of mock-up for water penetration and leakage.
 - 3. If leakage is detected make changes as needed and retest; retest until no leakage is detected.
- E. Mock-up may not remain as part of the Work.

1.08 PRE-INSTALLATION MEETING

- A. Convene minimum one week prior to commencing mock-up for this section.

1.09 DELIVERY, STORAGE, AND HANDLING

- A. Protect coating liquid from freezing.

1.10 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply coating when ambient surface temperature is lower than 50 degrees F or higher than 100 degrees F.
- B. Do not apply coating when wind velocity exceeds manufacturer recommendations.

1.11 WARRANTY

- A. Provide five-year manufacturer warranty for water repellents.

PART 2 - PRODUCTS

2.01 WATER REPELLENTS

- A. Manufacturers:
 - 1. Dayton Superior Corporation.
 - 2. Euclid Chemical Company.
 - 3. L & M Construction Chemicals, Inc.

4. Pecora Corporation.
5. ProSoCo.
6. Sonneborn Building Products.

2.02 COMPONENTS

- A. High Solids Acrylic Water Repellent: High-solids acrylic emulsion film-forming type water repellent, containing 15 percent or more solids by volume, with maximum 3.3 pounds per gallon VOC content.
 1. Moisture Vapor Transmission: Maximum 28.33 perms or 50 percent compared to untreated surfaces, ASTM D 1653.
 2. Resistance to Accelerated Weathering: No loss in repellency after 2,500 hours, ASTM G 53.
 3. Apply to concrete.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify joint sealants are installed and cured.
- B. Verify surfaces to be coated are dry, clean, and free of efflorescence, oil, or other matter detrimental to application of coating.

3.02 PREPARATION

- A. Delay Work until concrete substrate is cured a minimum of 60 days.
- B. Remove loose particles and foreign matter.
- C. Remove oil or foreign substance with a chemical solvent which will not effect coating.
- D. Scrub and rinse surfaces with water and let dry.

3.03 APPLICATION

- A. Apply at a rate of min 1.3 ounces per square foot by airless spray.
- B. Apply in two continuous, uniform coats.

3.04 PROTECTION OF INSTALLED CONSTRUCTION

- A. Protect adjacent surfaces not scheduled to receive coating.
- B. Protect landscaping, property, and vehicles.

- C. If applied to unscheduled surfaces, remove immediately by methods as instructed by coating manufacturer.

END OF SECTION