SECTION 07 19 00 - WATER REPELLENTS for Vertical Masonry.

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Water repellent coating applied to exterior/interior concrete masonry surfaces.

B. Related Sections:
Section 07 19 16 – Silane Water Repellents
Section 07 19 19 – Silicone Water Repellents
Section 07 19 23 – Siloxane Water Repellents

1.2 SUBMITTALS

A. Certifications: Submit manufacturer's certification of conformance to specified surface preparation and application rates.

B. Test Results: Submit test results of initial and final RILEM test and final spray test.

C. Contract Closeout Submittals: Submit Letter of Certification under provisions of appropriate close out section.

1.3 QUALITY ASSURANCE

A. Qualifications: Manufacturer: Company specializing in manufacturing Products specified with minimum 5 years documented experience.
Applicator: Company specializing in performing the work of this Section with minimum 5 years documented experience.

B. Regulatory Requirements: Comply with applicable rules and regulations of Pollution-Control Regulatory Agency having jurisdiction regarding volatile organic compounds (VOC) and use of hydrocarbon solvents.

C. Field Samples:
Prior to water repellent application, apply water repellent coating to field mock-up sample.
Apply water repellent at an initial rate of application as determined by the manufacturer as presumed necessary to pass the RILEM water tube uptake test results specified.
Allow seven days for the sample to cure. Perform a RILEM water tube uptake test on the treated area conducted by or supervised by the manufacturer's representative. Place one tube on the block surface and one tube on a mortar joint.
Results: Absorption shall be not less than 1.0 milliliter of water using a RILEM water uptake tube at 60 mph wind driven rain equivalent. Apply additional repellent when tests results indicate failing results and retest until passing tests are achieved.

Coverage rate for entire project shall be that which is used to for the mock-up sample passing test.

D. Meets ASTM-C309, Type 1 Class A and B for curing compounds.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Section 01 60 00 - Materials and Equipment: Transport, handle, store, and protect products.

B. Protect coating liquid from freezing.

1.5 PROJECT CONDITIONS

A. Environmental Requirements: Do not apply Product during the following conditions:
Both ambient and surface temperatures are below 40 degrees F.
Substrate surfaces have cured less than 30 days.
Rain or temperatures below 40 degrees F are predicted for a period of 24 hours.
Surface moisture readings as measured by an electronic moisture meter exceed 20%.

1.6 WARRANTY

General contractor must provide a written manufacture's warranty prior to project completion. Said warranty from manufacturer will include replacement of materials to repair any deficiencies reported for a period of no less than ten (10) years. Said warranty must be in writing from the coating's manufacturer. Applicator must provide a one-year performance and workmanship warranty for one year.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Subject to compliance with project requirements, the following manufacturer may be used.

Rainguard, Huntington Beach, CA 888-765-7070.

2.2 MATERIALS
Description: Clear penetrating water repellent comprising of silane, siloxane, blends of silane and siloxanes, waterborne and VOC compliant.

A. Products:

1. Rainguard: Concrete Sealer Silane/Siloxane (1 Flood Coat)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine surfaces and adjacent areas where products will be applied and verify that surfaces conform to specifications and manufacturer's requirements for substrate conditions. Do not proceed until satisfactory conditions have been corrected.

B. Verify joint sealants are installed and cured.

C. Beginning of application indicates acceptance of substrate conditions.

3.2 PREPARATION

A. Surface cracks, holes, or other imperfections that exceed 1/64 of an inch shall be filled with pointing mortar. Masonry joints found to be unsound, hollow, or otherwise defective shall be raked out to a depth of 1/2 inch and

pointed with mortar.

B. Remove loose particles and foreign matter. Remove oil or foreign substance with a cleaning agent which will not affect coating.

C. Scrub and rinse surfaces with water, and let dry.

D. Protect adjacent surfaces not scheduled to receive coating. If applied on unscheduled surfaces, remove immediately, by approved method.

E. Protect landscaping, property, and vehicles from over spray and drift.

3.3 APPLICATION

A. Apply material using a Flood-Coat application while avoiding atomization.

3.4 FIELD QUALITY CONTROL

A. Manufacturer's Field Services: Provide services of a manufacturer-authorized technical service representative to inspect and approve the substrate before application, to instruct the applicator on the product and application method to be used, and to field test the in-place surfaces after application.

B. Spray Test: After water repellent has dried, spray coated surfaces with water. After surfaces have adequately dried, recoat surfaces that show water absorption.

C. Water Uptake Test: Perform a RILEM Water Uptake test on a minimum of 5 locations on the completed project to confirm conformance to minimum results stated in Part 1 hereinbefore. Conduct test on upper and lower portions of the masonry surfaces and on an equal number of joints and block surfaces. Tests shall be conducted by the manufacturer’s representative.

D. Furnish written certification that surface preparation and rate of application is completed in accordance with specification requirements and the manufacturer’s recommendations. Furnish results of in-place RILEM and spray test.

3.5 CLEANING

A. Immediately clean water repellent from adjoining surfaces soiled or damaged by water repellent application as work progresses.

B. Repair damage caused by water repellent application.

C. Comply with manufacturer's published instructions for cleaning.

END OF SECTION