**Section 07191**

**water repellent**

**(MERLEX MERSEAL II)**

 GENERAL NOTES TO SPECIFIER: THIS SPECIFICATION SECTION HAS BEEN PREPARED TO ASSIST DESIGN PROFESSIONALS IN THE PREPARATION OF PROJECT OR OFFICE MASTER SPECIFICATIONS. IT FOLLOWS GUIDELINES ESTABLISHED BY THE CONSTRUCTION SPECIFICATIONS INSTITUTE, AND THEREFORE MAY BE USED WITH MOST MASTER SPECIFICATION SYSTEMS WITH MINOR EDITING. EDIT CAREFULLY TO SUIT PROJECT REQUIREMENTS. MODIFY AS NECESSARY AND DELETE ITEMS THAT ARE NOT APPLICABLE. VERIFY THAT REFERENCED SECTION NUMBERS AND TITLES ARE CORRECT. (NUMBERS AND TITLES REFERENCED ARE BASED ON *MASTERFORMAT*, 1995 EDITION). THIS SECTION ASSUMES THE PROJECT MANUAL WILL CONTAIN COMPLETE DIVISION 1 DOCUMENTS INCLUDING SECTIONS 01330-SUBMITTAL PROCEDURES, 01620-PRODUCT OPTIONS, 01630-PRODUCT SUBSTITUTION PROCEDURES, 01660-PRODUCT STORAGE AND HANDLING REQUIREMENTS, 01770-CLOSEOUT PROCEDURES, AND 01780-CLOSEOUT SUBMITTALS. CLOSE COORDINATION WITH DIVISION 1 SECTIONS IS REQUIRED. IF THE PROJECT MANUAL DOES NOT CONTAIN THESE SECTIONS, ADDITIONAL INFORMATION SHOULD BE INCLUDED UNDER THE APPROPRIATE ARTICLES. THIS IS A PROPRIETARY SPECIFICATION FOR MERLEX STUCCO “MEREAL II” WATER REPELLENT. NOTES TO THE SPECIFIER ARE CONTAINED IN BOXES AND SHOULD BE DELETED FROM FINAL COPY. OPTIONAL ITEMS REQUIRING SELECTION BY THE SPECIFIER ARE ENCLOSED WITHIN BRACKETS, E.G: [35] [40] [45]. MAKE APPROPRIATE SELECTIONS AND DELETE OTHERS. OPTIONAL PARAGRAPHS REQUIRING SELECTION OF ONE OF THE OPTIONS ARE SEPARATED BY “OR” WITHIN A BOX, E.G: OR OPTIONAL PARAGRAPHS AND FEATURES THAT MAY BE SELECTED OR DELETED AS DESIRED ARE SHOWN IN BOLD FACE TYPE. DELETE BOLD FACE TYPE WHEN INCLUDING THESE PARAGRAPHS OR FEATURES.

**Part 1 - General**

1.01 Summary

A. Section Includes: Solvent-free, silane/siloxane, clear water repellent.

B. Related Sections:

1. Section 03300Cast-in-Place Concrete.

2. Section 03400Precast Concrete.

3. Section 04210Clay Masonry Units.

4. Section 04220Concrete Masonry Units.

5. Section 07920Joint Sealants

6. Section 09220Portland Cement Plaster.

INCLUDE APPROPRIATE LANGUAGE BELOW IF PRODUCTS SPECIFIED IN THIS SECTION ARE TO BE BID AS ALTERNATES. OTHERWISE DELETE FOLLOWING PARAGRAPH.

C. Alternates:

1. Reference Section 01230Alternates.

1.02 Submittals

A. Reference Section 01330Submittal Procedures; submit following items:

1. Product Data.

2. Samples: 12 inch (300 mm) square samples of each substrate indicated to be treated with the water repellent applied to half of each sample.

3. Quality Assurance/Control Submittals:

a. Qualifications: Manufacturer and applicator qualification data.

b. Certifications.

c. Manufacturer’s Installation Instructions.

B. Closeout Submittals: Refer to 01780Closeout Submittals; submit following items:

1. Special Warranties.

1.03 Quality Assurance

A. Qualifications:

1. Manufacturer Qualifications: Minimum five years experience in producing water repellents.

2. Applicator Qualifications: Licensed contractor with documented experience in application of water repellents.

B. Regulatory Requirements: Follow applicable rules and regulations of the pollution-control regulatory agency having jurisdiction over the Project.

C. **Certifications: Letter signed by manufacturer certifying that water repellent complies with local regulations governing use of volatile organic compounds (VOC).**

D. **Mock-Ups: Apply water repellent to substrate material mock-up, full or partial coverage as directed by Architect, and obtain Architect’s approval of completed mock-up prior to proceeding with application.**

OR

D. **Prior to performing water repellent work, apply a sample of approximately four sf (one m2) in an unobtrusive location, and obtain Architects approval of sample.**

1.04 Delivery, Storage, and Handling

A. Reference Section 01660Product Storage and Handling Requirements.

B. Store at 50 - 90 degrees F (10 - 32 degrees C).

C. Follow manufacturer’s instructions.

1.05 Project/SITE Conditions

A. Environmental Requirements:

1. Do not apply when ambient temperature is below 40 degrees F (4 degrees C) or above 100 degrees F (38 degrees C) or when predicted to exceed these limits within 24 hours.

2. Do not apply if rain is forecast within 24 hours.

B. Existing Conditions:

1. Do not apply to frozen or frost filled surfaces.

2. Do not apply to wet surfaces.

3. Allow new cementitious surfaces, including mortars, to cure minimum 28 days prior to application.

1.06 Warranty

A. Special Warranty: Written warranty executed by manufacturer agreeing to provide replacement water repellent material that fails to provide water repellency within a period of ten (10) years from date of [Substantial Completion] [Acceptance by Owner].

OTHER SPECIAL WARRANTIES ARE AVAILABLE ON A PROJECT BY PROJECT BASIS. CONTACT MERLEX REPRESENTATIVE FOR DETAILS.

**Part 2 - Products**

2.01 Manufacturer

A. Manufacturer: Merlex Stucco, Inc.
 2911 Orange-Olive Road
 Orange, CA 92865
 Tel: (714) 637-1700 Fax: (714) 637-4865

INSERT NAME, ADDRESS AND PHONE NUMBERS OF LOCAL REPRESENTATIVE BELOW.

1. Representative:

B. Product: MerSeal 2000

C. Substitutions: None permitted.

2.02 Materials

A. Water Repellent: Solvent free, ready-to-use silane/siloxane emulsion.

1. Physical Properties:

VOC Content EPA 24/ASTM D3960 and D5095 2.67 lbs per gal (323 g/l)

Water Repellency, Wind Driven Conditions ASTM E 514 89 percent reduction

Reduction in Water Absorption NCHRP 244, Series II 79 percent average

Reduction in Chloride Ion Intrusion NCHRP 244, Series II 80 percent average

Accelerated Weathering Test NCHRP 244, Series IV, Southern Exposure 91 percent reduction in soluble chloride; no discoloration

Resistance to Chloride Ion Penetration AASHTO T-259 and T-260 74 percent reduction in total chlorides

2. Other Properties:

a. Specific Gravity: 0.95

b. Auto-Ignition Temperature: 743 degrees F (395 degrees C)

c. Flash Point: None

**Part 3 - Execution**

3.01 Examination

A. Examine substrates upon which water repellent will be applied. Verify that surface is structurally sound, clean, free of dust, dirt, paint products, previously applied water repellents, efflorescence or other forms of contamination that could prevent proper penetration of water repellent.

1. Consult manufacturer’s representative if conditions exist that are not covered by, or cause conflict with, manufacturer’s installation instructions.

B. Sealant Coordination: Verify that joint sealants are installed and cured.

C. Coordinate with responsible entity to perform corrective work on unsatisfactory substrates.

D. Commencement of work by applicator is acceptance of substrate.

3.02 Preparation

A. Protect adjacent glass and metal surfaces and nearby plants and grass from direct contact or overspray.

3.03 APPLICATION

A. Use low-pressure spray equipment and follow manufacturer’s instructions for two coat application.

3.04 Cleaning

A. Clean drips, runs and overspray on non-treated surfaces before water repellent material is allowed to dry.

B. Remove protective coverings from adjacent surfaces.

C. Keep premises free from accumulation of waste and debris. Upon completion of work, remove surplus materials, waste and debris from site.

End of Section