



## GUIDELINE FOR WRITING SPECIFICATIONS WHEN USING

# R97 Water Repellent

Select Relevant Selection

## Division 07190 – Water Repellents

### Part 1 – GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Work of this section shall be governed by the Contract Documents. Provide materials, labor, equipment, and services necessary to furnish, deliver, and install all work of this section as shown on the drawings, as specified herein, and/or as required by job conditions.

#### 1.2 SUMMARY OF WORK

- A. This section includes, but is not limited to, the following:
  - a. Chemical treatment application to reduce water infiltration in natural stone, stucco, concrete, brick and other masonry substrates. Mock-ups will determine project specific coverage rates.

#### 1.3 REFERENCES

- A. Manufacturer's specifications and instructions.
- B. ASTM:
  - 1. D 1653 Method B, Condition A, - Test method to determine perm rating.
  - 2. D3960-93 - Practice for determining volatile organic compound content.

#### 1.4 SUBMITTAL

- A. See Section 01300 SUBMITTALS. Submit each item in this Article according to the Conditions of the Contract and Division 1 Specification Sections.
- B. Product Data: Submit manufacturer's specifications and installation instructions for products used including finishing materials and methods.
- C. Submit manufacturer's technical data sheet for each product indicated including chemical analysis and recommendations for their application and use. Include test reports and certifications substantiating that products comply with requirements.

- D. Submit a detailed plan for proposed application methods for each type of substrate for review and approval by owner or owner's representative's
- E. Samples: Provide sample installation of water repellent. Locations per the owner or owner's representatives directions.

### **1.5 QUALITY ASSURANCE**

- A. Mock-ups: Prepare sample for each type of substrate to be treated.
- B. Provide at least one person who shall be present at all times during the execution of the work of this section, who shall be thoroughly familiar with the specified requirements, and the materials and methods needed for their execution, and who shall direct all work performed under this section.
- C. Provide adequate numbers of workers skilled in the necessary crafts and properly informed of the specialized methods and materials to be used in this work.

### **1.6 TEST PANELS**

- A. Rilem testing shall take place on the test panels to determine efficacy and coverage rates as well as warrantee information. Cathedral Stone Products or an authorized distributor will oversee Rilem testing. Contact Cathedral Stone Prior to project for information on possible testing fees.
  - a. Projects requiring the 10 year warrantee are required to submit the following information prior to the application of product:
    - 1.
    - 2.
    - 3.
    - 4.
    - 5.
    - 6.
  - b. No warrantee will be issued on projects if application is started prior to testing completion.
- B. The Contractor shall arrange for preparing test panels to determine the coverage rates of each substrate. Size of testing area shall be no smaller than 1' SF.
- C. Contractor shall prepare a written report detailing results of testing including description of application methods employed.
- D. Each test panel must be carefully labeled, charted, and photographed.
- E. Approved test panels will become a part of the Work, and serve as the quality standard for similar type work on this project.
- F. Notify the owner's representative seven (7) days in advance of the dates and time when the test panels will be installed.

### **1.7 PROJECT/SITE CONDITIONS**

- A. Contractor shall be responsible for repairing damaged masonry prior to application of water repellent.
- B. Repairs shall be made by qualified mechanics skilled in the type of repairs required, to the satisfaction of the owner's representative.
- C. Cover air intakes, air conditioning vents and similar openings that may come in contact with the water repellent and residues fumes. Leave covers in place until application of water repellent is completed in the area.
- D. Protect trees, plants, foliage, storm sewers, and surrounding surfaces from water repellent.
- E. Take appropriate precautions to avoid harm to building occupants, pedestrians and nearby property. Terminate work when wind drift may cause contact with passerby or vehicles and adjacent property.

## **PART 2 – PRODUCTS**

### **2.1 MATERIALS**

#### **A. Water Repellent**

- 1. R97 water repellent, environmentally safe, 50 state VOC compliant, free of flammable solvents and fumes, caustics and MUST NOT contain Silanes, Siloxanes or derivatives of Silanes and or Siloxanes. Products must be compatible with all porous masonry substrates including repair and replacement materials. Acceptable products available through Cathedral Stone Products; contact Technical Reps - Tel: 410-782-9150; fax: 410-782-9155.
- 2. Testing requirements.
  - a. Water repellent must not contain or produce any VOC's
  - b. Minimum rating of 80 perms when applied to manufactures specification.
  - c. Water Repellant must not lower the WVT of the substrate by more than 1/3 of its pretreated value.

#### **B. Miscellaneous Equipment**

- 1. Natural bristle brushes
- 2. Rollers
- 3. Potable water
- 4. Rubber gloves
- 5. Eye and skin protection
- 6. Low pressure (10-25 psi.) Sprayer.

## **PART 3 – EXECUTION**

### **3.1 PREPARATION**

- A. Substrate must be clean, dry and free of foreign contaminants.
- B. Repair materials must be fully cured prior to applying water repellent.
- C. Protect adjacent masonry surfaces with drop cloths or other means where water repellent is not required. Special protection for windows is not required.
- D. Do not start work until surfaces to be coated are in proper condition to produce finished surfaces of uniform, satisfactory appearance.
- E. Mildew, algae and fungus should be removed using D/2 as recommended by the manufacturer.
- F. Remove dust and loose particulate matter from surfaces to receive coatings immediately prior to coating application.
- G. Cracks and spalls must be repaired and cured prior to application.
- H. To ensure even penetration, make sure any masonry repairs have been made with repair materials that are compatible to the substrate.
- I. Remove any previous or existing coatings before application of water repellent.
- J. Note\*\*: Substrate must be completely dry before coating. Do not work when precipitation is expected within 24 hours of installation. The water repellent needs adequate time to bond to the substrate. Moisture disrupts the curing process.

### **3.2 GENERAL APPLICATION OF WATER REPELLENT**

- A. Follow manufacturers' instructions.
- B. Clearly mark or identify areas that have been treated at the end of each shift.
- C. Apply water repellent in a systematic pattern to ensure complete.

### **3.3 CLEAN UP**

- A. During the work, remove from the site discarded cleaning and coating materials, rubbish, cans and rags at the end of each workday.
- B. Upon completion of work, remove all protective coverings and coatings, and clean window glass and other spattered surfaces. Remove spattered coatings by proper methods as recommended by manufacturer, using care not to damage adjacent surfaces.

## **PART 4 – CONTRACTOR QUALITY CONTROL**

### **4.1 QUALITY CONTROL**

- A. The implementation of a Contractor Quality Control Program does not relieve the Contractor from the responsibility to provide work in accordance with the Contract Documents, applicable codes, regulations, and governing authorities. The Contractor Quality Control Program shall include, but not be limited to, the elements

herein. These elements are provided only as a minimum starting point for the Contractor to use to generate the complete Contractor's Quality Control Program. Conform to all applicable provisions of Section 01400 CONTRACTOR QUALITY CONTROL.