



# Application Guideline

## ACRYLIC-FABRIC ROOF RESTORATION SYSTEM OVER CONCRETE

To ensure warranty eligibility, each job must be approved by American WeatherStar before it begins.

### PART 1 - GENERAL

#### 1.01 DESCRIPTION

- A. The intention of this guideline is to outline the procedures for the application of American WeatherStar reflective roof coatings for the purpose of coating **STRUCTURAL CONCRETE DECK ROOFS** and **OTHER CONCRETE SURFACES**. These suggested guidelines describe materials, methods, and conditions necessary for the proper application of the American WeatherStar roof coating system. Actual application requirements may vary and are the responsibility of the contractor.
- B. This guideline may not outline all procedures for preparation and finishing of penetrations, drains, flashings, etc. This work should be outlined separately by the contractor before the work commences and shall be performed observing good trade practices.

#### 1.02 APPROVED APPLICATOR

All American WeatherStar products shall be applied by a single, experienced, and competent contractor approved by American WeatherStar.

### PART 2 - PRODUCTS

#### 2.01 COATINGS AND RELATED MATERIALS

All materials used shall be manufactured by and or approved by American WeatherStar and shall meet the following specifications:

#### 2.02 ELASTOMERIC COATING SYSTEM

##### ACRYLIC 211

Type: Solar reflective coating  
Viscosity: 4,500 ± 500 cps  
Elongation: 233 ± 20%  
Tensile Strength: 273 ± 20 psi  
Volume Solids: 55 ± 2%  
Color: White, Gray, Tan

##### SILICONE 410

Type: UV resistant elastomeric  
Viscosity: 6,000 ± 1000 cps  
Elongation: 318%  
Tensile Strength: 500 psi  
Volume Solids: 69% ± 2%  
Color: White, Gray, or Tan

##### FABRIC BOND 930

Type: Primer/surface conditioner  
Viscosity: 600-800 cps  
Elongation: N/A  
Tensile Strength: N/A  
Color: Blue

##### POLYESTER FABRIC

Type: Spunbound polyester  
Viscosity: N/A  
Tensile Strength: 35 psi

##### ECOCLEANER 925

Type: Surface Cleaner  
VOC: 0 grams/liter  
Color: Clear

#### 2.03 DELIVERY AND STORAGE

- A. Materials shall be delivered in their original tightly-sealed containers or unopened packages, all clearly labeled with the manufacturer's name, file number, and batch numbers.
- B. Materials shall be stored out of the weather in their original tightly-sealed containers or unopened containers as recommended by the manufacturer.



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**2.04 WARRANTY**

- A. American WeatherStar warrants that the material supplied will meet or exceed physical properties as published. The contractor guarantees that workmanship will be free of defects in coating application. Since performance of existing roof substrate or previously applied coatings are beyond the control of American WeatherStar or the contractor, requests for additional warranty coverage shall be subject to prior approval by American WeatherStar.
- B. Comply with manufacturer's warranty application procedures. A Pre-Project Inspection Report should be submitted and approved prior to job commencement.

**PART 3 - INSTALLATION**

**3.01 SURFACE PREPARATION**

- A. Preparation shall include all requirements specified by American WeatherStar to ensure proper adhesion of the American WeatherStar products to the substrate. (An adhesion test may be necessary.)
- B. Preparation shall include, but not be limited to, the following:
  - 1. All unnecessary and non-functional equipment and debris shall be removed from the roof.
  - 2. Substrate must be pressure-washed. A minimum working pressure of 3,000 psi shall be used to remove all dirt, dust, any previous paints or coatings that are delaminating, as well as waste products (oil, oil-based roof cements, solvents, grease, animal fats, etc.). Use **ECOCLEANER 925** if necessary to remove all contaminants. Contact American WeatherStar for additional information.
  - 3. HVAC condensate drains shall be properly routed to roof drains or plumbed off the roof.
  - 4. Wet roof insulation and damaged membranes are to be removed and replaced as necessary to match existing specified material.
  - 5. All roof penetrations, curbs, vent stacks, and related roof penetrations are to be flashed in accordance with roof manufacturer's specifications.
  - 6. All laps and wall flashings are to be repaired in accordance with roof manufacturer's specifications.
  - 7. Contractor shall make every effort to mechanically eliminate all ponding water areas on the roof surface prior to application of any roof-coating product.

**3.02 PRIMER APPLICATION**

- A. Examine substrate to receive roof coating. Do not proceed with installation of the American WeatherStar roof coating until all problem areas have been corrected in a manner acceptable to the manufacturer.
- B. An adhesion test is recommended. Contact American WeatherStar for additional information.

**3.03 PREPARATION FOR COATING**

- A. American WeatherStar fabric should be installed using **FABRIC BOND 930** and 36"-40" rolls of American WeatherStar **POLYESTER FABRIC**.
  - 1. Lay the fabric out on the dry roof and pour the **FABRIC BOND 930** onto the fabric.
  - 2. Use rollers and roof brooms to push the **FABRIC BOND 930** into the fabric ensuring there are no fish-mouths, and the **POLYESTER FABRIC** lays flat as possible.
  - 3. The **FABRIC BOND 930** will penetrate the fabric and adhere to the roof substrate.
  - 4. Coverage rate for the **FABRIC BOND 930** is approximately 2-3 gallons per 100 square feet.



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**Note:** Porosity of concrete deck could increase actual application rate of **FABRIC BOND 930**.

- B. All penetrations and parapet walls are to be flashed using **POLYESTER FABRIC** and **FABRIC BOND 930**.
  - 1. Penetrations: The same procedure should be used on all penetrations using **FABRIC BOND 930** and either 4" or 6" **POLYESTER FABRIC**.
  - 2. Parapet Walls: The same procedure should be used on all parapet walls using 36"-40" **POLYESTER FABRIC** with one half of the fabric running up the wall.
  - 3. Allow 24-72 hours for coating to dry underneath the fabric before proceeding with top coats.

### 3.04 APPLICATION RATES

- A. **10 Year System Requirement (45 mil Acrylic System including Fabric)**
  - 1. **Base Coat:** Apply base coat of **ACRYLIC 211** roof coating at a rate of 1.5 gallons per 100 square feet.
  - 2. **Top Coat:** Apply a top coat of **ACRYLIC 211** roof coating at a rate of 1.5 gallons per 100 square feet.
- B. **15 Year System Requirement (50 mil Acrylic System including Fabric)**
  - 1. **Base Coat:** Apply base coat of **ACRYLIC 211** roof coating at a rate of 1.25 gallons per 100 square feet.
  - 2. **Intermediate Coat:** Apply an intermediate coat of **ACRYLIC 211** roof coating at a rate of 1.25 gallons per 100 square feet
  - 3. **Top Coat:** Apply a top coat of **HIGH TENSILE ACRYLIC 211** roof coating at a rate of 1.25 gallons per 100 square feet
- C. **20 Year System Requirement (58 mil Acrylic System including Fabric)**
  - 1. **Base Coat:** Apply base coat of **ACRYLIC 211** roof coating at a rate of 1.5 gallons per 100 square feet.
  - 2. **Intermediate Coat:** Apply an intermediate coat of **ACRYLIC 211** roof coating at a rate of 1.5 gallons per 100 square feet
  - 3. **Top Coat:** Apply a top coat of **HIGH TENSILE ACRYLIC 211** roof coating at a rate of 1.5 gallons per 100 square feet

**Note:** Final mil requirements include a 15 mil fabric thickness for all systems listed above.

- D. Each coat must be allowed to dry for 24-48 hours depending on humidity and temperature. The roof is to be inspected for defects, flaws or holidays and repaired if necessary.
- E. Each contractor should estimate coating requirements based on actual experience and needs to figure in losses due to applicator experience, surface texture, wind, waste, and other factors that can affect actual gallons required.
- F. It is the applicator's responsibility to verify wet and dry mil thickness during the application process to ensure proper dry mil thickness of the total roofing system.

### 3.05 PONDING

- A. Known ponding water areas are to be repaired using commonly acceptable roofing practices so as to allow proper drainage of roof area.
- B. Ponding water areas are a sign of possible mechanical failure in the roof. Water is to be intentionally diverted from ponding areas using accepted roofing practices. Ponded areas which evaporate within 7 days (under 1/2" deep) can be top coated with **SILICONE 410** to increase water resistance.
- C. Application of **SILICONE 410** is to be made at 2 gallons per 100 square feet.



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- D. The **SILICONE 410** is to be extended 2 feet beyond the ponded area.

### 3.06 RESTRICTIONS/LIMITATIONS

This system is to be used only in conjunction with commonly accepted roofing standards but not limited to the following:

- A. No application of materials shall commence during inclement weather or when precipitation is imminent.
- B. No materials are to be applied to wet, dirty, or frozen surfaces.
- C. In conjunction with the final inspection, all debris, containers, materials and equipment are to be properly removed from the job site. Grounds are to be cleaned, undamaged, and acceptable to the owner.
- D. Reflectivity of coatings may be reduced if roof surface is not cleaned on a regularly scheduled basis.

**Caution:** Do not apply within two hours of sunset, rain, fog or freezing temperatures. The American WeatherStar roof coating system must be completely dry before exposing to water or foot traffic. Keep American WeatherStar containers covered when not in use. Dispose of all containers in accordance with state and local environmental regulations. Keep away from children. If ingested, DO NOT induce vomiting. Call physician immediately.