

## AGED URETHANE ROOFS

### **PART 1: GENERAL**

#### **1.01 Description of Work**

- A. This specification is for the application of Roof Guardian Technologies (RGT) products and should be used only as a general guide.
- B. The coating system is designed to restore and protect aged urethane roofs from further degradation and extend the useful life of the roof.
- C. Additional details and specific areas of repair are to be selected, modified or added, as necessary.

#### **1.02 Quality Assurance**

- A. *Manufacturer Qualifications:* Manufactured Product shall have been commercially available for a minimum of ten (10) years
- B. *Requirements of Regulatory Agencies:* Furnish and apply all roofing materials in accordance with all regulatory agencies and approved building codes.
- C. *Contractor Qualifications:*
  - 1. Contractor shall have business stability and own proper equipment to prepare and apply materials as described herein.
  - 2. Contractor must provide proof of insurance including liability and workers compensation certificates.
  - 3. Contractor must be an approved applicator of RGT.

#### **1.03 Conformance Standards**

- A. Underwriters Laboratory (UL), Class A
- B. Factory Mutual (FM) Approved Guide

#### **1.04 Submittals**

- A. Manufacturer's technical product data, literature and contractor drawings and certificates shall be submitted.

#### **1.05 Product Storage And Handling**

- A. Deliver materials in manufacturer's original unopened containers bearing manufacturer's original label.
- B. Store and handle products in a manner ensuring no possibility of contamination.
- C. Store Materials at a minimum of 50°F prior to use.

#### **1.06 Job Condition**

- A. Environmental Requirements
  - 1. Do not begin work if rain is expected within 24 hours of application. Do not apply if weather does not permit complete cure prior to rain, fog, or temperatures falling below 50°F.
  - 2. All surfaces to be coated must not pond water. Water that evaporates within 48 hours is not considered ponding.
  - 3. All surfaces shall be clean, dry and structurally sound.

#### **1.07 Protection And Coordination**

- A. Owner will occupy the premises during the entire project. Cooperate with Owner during the construction operations to promote continued use of the facility.
- B. Coordinate scheduling with the Owner in order to relocate or protect vehicles, building occupants and building contents from damage during the construction operations.

#### **1.08 Warranty**

- A. A five (5) year material warranty is available. Contact Roof Guardian Technologies for more information.

## **PART 2: PRODUCTS**

### **2.01 General**

- A. All coatings system materials must be products of Roof Guardian Technologies, Inc.
  - 1. RG-170 Elastomeric is a 100% acrylic polymer elastomeric coating OR
  - 2. RG-180 Fibered White Elastomeric Coating
  - 3. RG-130 Gray Elastomeric Base is a 100% acrylic polymer elastomeric coating.
- B. Repair Options
  - 1. UT-40 Universal Tape®, a polyester fabric backed, synthetic butyl rubber adhesive tape.

### **2.02 Roof Coating System**

- A. Approved Manufacturer
- B. Approved Coating: RG-130 Elastomeric Roof Coating.
  - Vehicle Base ..... 100% Acrylic Resin
  - Tensile Strength@ 77°F (25°C) 170 p.s.i.
  - Elongation ..... 300% @ 75°F (24°C)
  - ..... 165% @ 0°F (-18°C)
  - Solids by wt..... 67 ± 2%
  - Solids by vol..... 52 ± 2%
  - Permeability ..... (ASTM E-96) 5 perms
  - VOC ..... < 50 g/l
- C. Approved Coating: RG-170 Elastomeric Roof Coating.
  - Vehicle Base ..... 100% Acrylic Resin
  - Tensile Strength@ 77°F (25°C) 170 p.s.i.
  - Elongation ..... 300% @ 75°F (24°C)
  - ..... 165% @ 0°F (-18°C)
  - Solids by wt..... 67 ± 2%
  - Solids by vol..... 52 ± 2%
  - Permeability ..... (ASTM E-96) 5 perms
  - VOC ..... < 50 g/l
- D. Approved Coating: RG-180 Fibered Elastomeric Roof Coating
  - Vehicle Base..... 100% Acrylic Resin
  - Weight per gallon (approx.)..... 11.7 lbs.
  - Solids by weight (ASTM 1644) ..... 67.8%
  - Solids by volume..... 52 ± 2%
  - Recycled content..... 28.5%
  - Elongation/Tensile @ 73°F ASTM D 2370
  - Initial Elongation..... 187%
  - Initial tensile Strength ..... 288psi
  - 1000 Hrs. Accelerated Weathering
  - Elongation..... 112%
  - Permeance ASTM D 1653 A..... 18.4 perms
  - Dry Time Sets to touch..... 1 hour
  - Between Coats..... 24 hrs minimum
  - VOC ..... < 50 g/l
  - Reflectivity ..... 86%
  - Therm. Emit. .... 89%

## **PART 3: EXECUTION**

### **3.01 Inspection**

- A. The roof surface must be clean, dry, free of ponding water, and structurally sound.
- B. Any discharge of fumes or possible contaminants must be noted. Contact RGT to determine if fumes or matter being exhausted will interfere with adhesion.

**ROOF GUARDIAN TECHNOLOGIES, INC. by STS Coatings, Inc.**

347 Hwy 289, Comfort, TX 78013  
(830)995-5177 phone (830) 995-5705 fax  
[WWW.STSCOATINGS.COM](http://WWW.STSCOATINGS.COM)

- C. Inspect the roof surface for cracks, blisters, chalking, crazing, and shrinking.
- D. Inspect flashing details including penetrations, curbs, expansion and transition joints, wall terminations, and drain details.
- E. Inspect and probe all field seams and patches.  
Inspect and determine if substrate, insulation or deck is deteriorated and should be replaced.
- F. Inspect for insulation fastener and/or plates backing out.

### 3.02 Surface Preparation

- A. Any necessary repairs or replacement of deck and/or insulation must be completed.
- B. Pressure wash the roof using pressure strong enough to clean but not damage the foam insulate. Detergent or TSP substitute may be used to remove excessive dirt; brushing with a firm bristle broom may be required in some areas.
- C. If mildew exists on the roof surface, remove by washing with a solution of detergent and bleach (1 tablespoon of laundry detergent with 1-2 pints of bleach in 1 gallon of water).
- D. Any repairs to the roof surface, flashings, penetrations, etc., as determined through inspection, must be completed before coating is applied, **Note: If a structurally sound, well sealed and watertight surface is not in place, the roof is not acceptable to receive the coating system.**
  - 1. Tighten or re-secure all terminations and assure all termination bars and reglets are properly caulked.
  - 2. Repair loose, open seams, holes, and splits with UT-40 Universal Tape®.
  - 3. To seal and reinforce areas around penetrations including vents, stacks, fans as well as curbs and drains, use UT-40 Tape.
  - 4. Perimeter metal drip edges must be secure and reinforced with UT-40 Tape.
  - 5. In low lying areas, around drains or other areas where potential water accumulation is possible, apply UT-40 over entire area, 24" minimum around drains.

### 3.03. Application

- A. General
  - 1. Inspect preliminary work for problem areas to ensure all preparatory work has been completed properly. Use a wet mil gauge to ensure proper coating requirement.
- B. Five (5) year Solar Reflectance Warranty system
  - 1. Apply RG-130 Gray Base Coat at the rate of 2.0 gallon per 100 sq. ft. (32 wet mils, 16.6 dry mils)
  - 2. Apply RG-170 Elastomeric White Coating at the rate of 2.0 gallons per 100 sq. ft. (32 wet mils, 16.6 dry mils) OR
  - 3. Apply RG-180 Fibered Elastomeric White Coating at the rate of 1.5 gallons per 100 sq. ft. (24 wet mils, 12.5 dry mils).
- D. Application Method
  - 1. Airless spray equipment – (recommended air pressure of 2,000 @ the tip. Tip size of .35 - .45.
  - 2. Medium nap roller.

### 3.04. Job Completion

- A. Inspect completed application and correct any defects.
- B. Manufacturer's representative may inspect the completed application and notify the Contractor of any defects in the application.
- C. Clean up all debris, excess materials, and equipment and remove from site.
- D. Restrict traffic to only essential personnel. Provide appropriate protection against traffic and construction activities on completed roofs.
- E. Consultants & architects take precedent if coverages required are greater than specs

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