

## SECTION 075600 - ROOF COATINGS

### PART 1 GENERAL

#### 1.1 SUMMARY

A. Section included:

1. Reflective roof coatings.

B. Related Sections:

1. Section 075216 – SBS Roofing.
2. Section 076200 – Sheet Metal Flashing and Trim.
3. Section 079200 – Joint Sealants.

C. References and Industry Standards

1. The following reference standards shall be applicable to this Section:
  - a. New York City Building Code, **current** edition, as amended, inclusive of:
    - Chapter 15 Roof Assemblies and Rooftop Structures
      - Section 1504.9 Reflectance
  - b. New York City Energy Conservation Construction Code, **current** edition:
    - Table C402.3 Minimum Roof Reflectance and Emittance Options
  - c. ANSI/CRRC S100 Standard.
2. Industry Standards:
  - ANSI (American National Standards Institute)
  - ASTM (American Society for Testing and Materials)
  - CRRC (Cool Roof Rating Council)

#### 1.2 SUBMITTALS

A. Product Data: Manufacturer's data sheets on each product to be used, including:

1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods.

B. Warranty: Submit a sample warranty identifying the terms and conditions stated in Warranty article.

#### 1.3 QUALITY ASSURANCE

A. Applicator Qualifications: Applicator shall be experienced in applying the same or similar materials.

- B. Regulatory Requirements: Comply with applicable codes, regulations, ordinances, and laws regarding use and application of products that contain volatile organic compounds (VOC).
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
  - 1. Finish areas designated by Architect.
  - 2. Do not proceed with remaining work until workmanship is approved by Architect.
  - 3. Rebuild mock-up area as required to produce acceptable work.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to project site in original, factory-sealed, unopened containers bearing manufacturer's name and label intact and legible with following information.
  - 1. Name of material.
  - 2. Manufacturer's stock number and date of manufacture.
- B. Store materials in protected and well ventilated area. Handle materials to avoid damage.

#### 1.5 PROJECT CONDITIONS

- A. Do not apply when surface temperature or weather conditions conflict with manufacturer's published requirements.
- B. Keep flammable products away from spark or flame. Do not allow the use of spark producing equipment during application and until all vapors have dissipated. Post "NO SMOKING" signs.
- C. Maintain work area in a neat and orderly condition, removing empty containers, rags, and rubbish daily from the site.

#### 1.6 WARRANTY

- A. Warranty: Provide manufacturer's standard limited material warranty.

### PART 2 - PRODUCTS

#### 2.1 REFLECTIVE ROOF COATINGS

- A. Low-VOC single component, moisture curing silicone coating.
  - 1. Produces a durable elastic coating with exceptional weathering and water resistance characteristics.
  - 2. ASTM D6694.
  - 3. Solids by Weight, ASTM D1644: 80 percent.
  - 4. Solids by Volume: 70 percent.
  - 5. Hardness, ASTM D2240: 50.
  - 6. Elongation, ASTM D2370: 267 percent at 73 degrees F, 282 percent at 0 degrees F.
  - 7. Tensile Strength, ASTM D2370: 486 PSI at 73 degrees F, 700 PSI at 0 degrees F.
  - 8. Permeance, ASTM E96: 5.9 perms.
  - 9. Color: White.
  - 10. Single Coat, Coverage Rate: 1-1/2 gallons per 100 square feet.
  - 11. Multi Coat, Coverage Rate: 1-1/2 gallons per 100 square feet, per coat.
  - 12. Dry Film Thickness: 22 mils per coat.

13. Solar Reflectance: Initial: 0.87, 3-year: 0.70.
  14. Thermal Emittance: Initial: 0.89, 3-year: 0.90.
  15. SRI: Initial: 110, 3-year: 86.
  16. Service Temperature: -15 to 180 degrees F.
  17. Cure Time: 2 to 8 hours.
- B. Acrylic-based polymer elastomeric roof coating.
1. Provides good resistance to UV degradation and the weather.
  2. Forms a highly elastic membrane to protect a variety of roof substrates.
  3. Solids by Weight: 63 percent.
  4. Solids by Volume: 50 percent.
  5. Elongation, ASTM D412: 450 percent.
  6. Tensile Strength, ASTM D412: 140 PSI.
  7. Color: White.
  8. Coverage Rate: 1-1/2 gallons per 100 square feet per coat.
  9. Wet Film Thickness: 32 mils.
  10. Solar Reflectance: Initial: 0.82.
  11. Thermal Emittance: Initial: 0.91.
  12. Service Temperature: -0 to 180 degrees F.
  13. VOC Content: 47 g/L.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Before work is started, applicator shall thoroughly examine all surfaces for any deficiencies.
- B. Notify Design-Professional-of-Record in writing of any defects.

### 3.2 SURFACE PREPARATION

- A. All surfaces should be clean, dry and free of dust, dirt, oil and other foreign matter.
- B. Repair all cracks and blisters.
- C. Weather surfaces as recommended by coating manufacturer.

### 3.3 APPLICATION

- A. Comply with manufacturer recommendations and approved submittals. Mix as recommended by manufacturer.
- B. Mix as recommended by manufacturer.

**END OF SECTION 075600**