

### WHITE REFLECTIVE COATING SYSTEM

**Substrate:**

**Existing Concrete Roof  
Deck**

**Mastic Type:**

**502MS Karna-Flex**

**Base Coat:**

**502 Self-Priming Base  
Coat**

**Finish Coat:**

**502 RC-W Elasto-Kote  
Finish White**

The following KARNAK Roof Restoration System is intended to be applied over sound, dry, existing concrete roof decks with positive drainage.

**BENEFITS & ADVANTAGES:**

- Energy Star® listed reflective coating reduces energy consumption by lowering air conditioning requirements.
- Can provide an energy savings “payback” based on building design, energy consumption needs and insulation levels.
- Application causes no disruption of activities inside building.
- Seals and protects concrete roofing systems.
- Sustainable - Avoids roof replacement and adds life to the existing roof system.
- Reflective coating prevents harmful UV rays from prematurely deteriorating roofing systems.

**PART 1 – MATERIALS**

- 1.1 **799 Wash-N-Prep:** Concentrated liquid TSP substitute specifically designed to clean roof surfaces prior to applying coatings.
- 1.2 **502MS Karna-Flex:** An elastomeric, thermoplastic-rubber sealant formulated for sealing and repairing flashings, curbs, fasteners, penetrations and general repairs to concrete roofs prior to applying applicable coatings.
- 1.3 **5540 Resat-Mat:** Spunlaced polyester fabric for reinforcing mastics and coatings over irregular, rough surfaces as well as smooth surfaces.
- 1.4 **502 Self-Priming Base Coat:** A highly elastic, SEBS thermoplastic rubber-based elastomeric coating that bonds directly to concrete to produce a firm, self-priming base coat for subsequent coatings.
- 1.5 **502 RC-W Elasto-Kote Finish White:** A highly elastic and reflective SEBS thermoplastic rubber coating exhibiting outstanding color stability and weatherability. It imparts excellent elongation properties making it ideal for coating concrete roofs.

**PART 2 – APPLICATION:****2.1 General:**

- A. Read all applicable product data sheets and SDS for appropriate application and preparation guidelines.
- B. All roof surfaces to be coated should be smooth, sound, clean, dry and free of dirt, loose coating, grease, oil, dust and debris. Do not apply over brittle roof surfaces.
- C. Roof deck must have positive drainage.

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- D. Adhesion of the coatings should be tested over all applicable roof surfaces prior to the system application.

### **2.2 Preparation:**

- A. Repair all cracks by V-cutting and sealing with a paintable one-component urethane caulk or 502MS Karna-Flex. Finish sealing by applying Karna-Flex and 5540 Resat-Mat in a three-course application or other appropriate materials. Seal all other defective areas that may affect the waterproofing integrity of the existing roof system.
- B. Cut away low hanging branches and vegetation that extend onto the roof.
- C. Power-wash all surfaces to be coated with 799 Wash-N-Prep Roof Cleaner and water maintaining a minimum of 2000 psi. Take all necessary precautions to avoid damage to the roof system when power washing.
  - a. Dilute 799 Wash-N-Prep with water at a 16:1 ratio for normal cleaning.
  - b. Apply diluted cleaning agent directly to the roof surface with a Hudson-type sprayer or using a stiff nylon brush by dipping the brush into a bucket of diluted cleaner. Cleaner may also be added in full strength to the detergent reservoir for injection dilution at a 16:1 ratio.
  - c. Rinse all surfaces thoroughly with a heavy duty power washer using clean water to completely remove all residues. Do not allow dirty solution to pool on the roof and dry.
  - d. Allow the roof to completely dry before applying KARNAK coating products.

### **2.3 Repairs:**

- A. Apply Karna-Flex in a 1/16' - 1/8" thickness by 8" width directly over the crack or area to repair with a 'chip-type' brush.
- B. While still wet, immediately embed 6" wide Resat-Mat into the wet Karna-Flex. Use the brush to remove any wrinkles or fishmouths.
- C. Immediately brush apply an additional 1/16" - 1/8" thick by 8" wide application of Karna-Flex over the embedded Resat-Mat to completely cover the fabric, feathering the Karna-Flex out to the roof surface. No fabric should be visible.
- D. Total coverage of Karna-Flex in this application is approximately 20 lineal feet per gallon.
- E. Allow Karna-Flex to cure 24-48 hours before application of the subsequent coating.

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## **2.4 Sealing Penetrations & Flashings:**

- A. Seal all base flashings, perimeters, roof penetrations and drain areas with Karna-Flex and 5540 Resat-Mat.
- B. Apply Karna-Flex in a 1/16" – 1/8" thickness by 8" width directly over the area to repair.
- C. While still wet, immediately embed 6" wide Resat-Mat into the wet Karna-Flex.
- D. Immediately apply an additional 1/16" – 1/8" thick by 8" wide application of Karna-Flex over the embedded Resat-Mat to completely cover the fabric, feathering the Karna-Flex out to the roof surface. No fabric should be visible.
- E. Total coverage of Karna-Flex in this application is approximately 20 lineal feet per gallon.
- F. Install fabric reinforcement a minimum of 6" inches vertically up above all penetrations and a minimum of 6" out onto the field of roof.
- G. Allow Karna-Flex to completely dry 24-48 hours before application of the subsequent base coating.

## **2.5 Base Coat Application:**

- A. Application of 502 Self-Priming Base Coat should take place when temperatures are 40°F-100°F and humidity levels are 85% or less.
- B. Thoroughly mix the 502 Self-Priming Base Coat to overcome any settling that may have occurred. Mix the product to a homogenous consistency.
- C. Starting at one end of the roof, apply one coat of 502 Self-Priming Base Coat at the rate of 1.5 gallons per 100 sq. ft. with a 3/4" nap roller or airless spray equipment.
- D. Apply coating evenly, working in the same direction. Don't overwork the coating or attempt "touch-ups" while the coating is still wet. All to dry 6-12 hours before applying subsequent coatings.
- E. Do not apply if rain is expected within 24 hours after application.

## **2.6 Finish Coat Application:**

- A. Application of 502 RC-W Elasto-Kote Finish White should take place when temperatures are 40°F-100°F and humidity levels are 85% or less.
- B. Thoroughly mix the 502 RC-W Elasto-Kote Finish White to overcome any settling that may have occurred. Mix the product to a homogenous consistency.

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- C. Starting at one end of the roof, apply one coat of 502 RC-W Elasto-Kote Finish White at the rate of 1.5 gallons per 100 sq. ft. with 3/4" nap roller or airless spray equipment.
- D. Apply 502 RC-W Elasto-Kote Finish White perpendicular to the 502 Self-Priming Base Coat.
- E. Apply coating evenly working in the same direction. Don't overwork the coating or attempt "touch-ups" while the coating is still wet.
- F. Do not apply if rain is expected within 24 hours after application.

### 2.7 Material List & Coverage Rates:

Note: The below listed coverage rates are for estimating purposes only. Actual amounts may vary depending upon the irregularity and porosity of the roof surface, measurements taken and applicator installation.

- |  |                           |
|--|---------------------------|
| A. <b>799 Wash-N-Prep:</b>                   | 1 quart per 1,600 sq. ft. |
| B. <b>502MS Karna-Flex:</b>                  | 20 lineal feet per gallon |
| C. <b>5540 Resat-Mat:</b>                    | 6" x 300' per roll        |
| D. <b>502 Self-Priming Base Coat:</b>        | 1.5 gal. per 100 sq. ft.  |
| E. <b>502 RC-W Elasto-Kote Finish White:</b> | 1.5 gal. per 100 sq. ft.  |

This specification is based upon information and/or pictures provided to us by the applicator/contractor. KARNAK has not inspected the roof or independently verified any of the information provided. KARNAK is relying solely on the applicator/contractor to determine that the roof structure and condition of the roof makes the roof an appropriate candidate for coating, and that a moisture test or other procedure has been performed to verify that the substrate is not wet. The recommended use of KARNAK products listed are predicated on tests believed to be reliable. However, since such application and use is beyond our control, we do not guarantee the results to be obtained. The above specification is offered as a service to the specifier. KARNAK does not practice architecture nor engineering and recommends that you consult a registered architect, engineer and/or roofing consultant. Accordingly KARNAK disclaims all liability in connection with the use of this specification.

### KARNAK

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