

## WHITE REFLECTIVE COATING SYSTEM

### Substrate:

Cementitious Coated  
Spray Polyurethane  
Foam (CSPF)

### Mastic Type:

502MS Karna-Flex

### Base Coat:

502 Self Priming Base  
Coat

### Finish Coat:

502 RC-W Elasto-Kote  
White

## APPLICATION GUIDELINES

The following KARNAK Roof Restoration System is intended to be applied over sound and dry Cementitious Coated Spray Polyurethane Foam (CSPF) roofing systems with positive drainage.

### BENEFITS & ADVANTAGES:

- System seals flashings and penetrations to form a seamless elastomeric membrane with exceptional elongation and tensile strength properties.
- Excellent adhesion to prepared Cementitious Coated SPF (CSPF) surfaces.
- Thermoplastic rubber system produces an elastomeric film with excellent elongation.
- 502 RC-W Elasto-Kote is an 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.
- Avoids roof replacement and adds life to the existing roof system.

### 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 seams, flashings, curbs, fasteners, penetrations and general repairs to CSPF roofs.
- 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 rubber based elastomeric coating formulated to bond to cementitious coated spray polyurethane foam roofing to provide a firm base for subsequent coatings.
- 1.5 **502 RC-W Elasto-Kote White:** A highly elastic and reflective SEBS rubber coating exhibiting outstanding color stability and weatherability. This coating imparts excellent elongation properties making it ideal for coating use over SPF roof systems.

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## **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 sound, clean, dry and free of dirt, grease, oil, dust, debris and loose granules. Do not apply over brittle roof surfaces.
- C. It is highly recommended that a moisture survey be conducted. If 20% or more of the roof is considered wet this coating system should not be installed. Other reroofing options should be considered. If wet areas encompass less than 20%, all wet insulation and roofing materials should be removed and replaced with like materials prior to coating application.
  - a. Remove all wet or punctured foam down to the deck surface.
  - b. Re-foam the entire area using a “froth pack” roof foam kit or applicable foam installation equipment and allow to cure until the foam is solid to the touch. Make sure foam protrude beyond the surface of the roof.
  - c. For smaller repairs and details, use a thin wire and work back and forth to cut the excess foam down to the level of the original roof surface.
- D. All areas where the CSPF has been degraded or damaged must be removed and re-foamed.
- E. Adhesion of the coatings should be tested over all applicable roof surfaces prior to the system application.

### **2.2 Preparation:**

- A. Repair all cracks, splits, holes and where new and existing foam meet with 502MS Karna-Flex and 5540 Resat-Mat in a three-course application. 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.

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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 (48 hours or more if necessary) before applying KARNAK coating products. Any moisture left on the roof surface will likely cause blistering of the coating system.

### **2.3 Base Coat Application:**

- A. Application of the 502 Self Priming Base Coat should take place when temperatures are 40°F-100°F and humidity levels are 85% or less.
- B. 502 Self Priming Base Coat is a self-priming, thermoplastic, elastomeric SEBS rubber base coating formulated for use over CSPF and is light gray in color to allow for easy application of the white finish coat.
- C. Thoroughly mix the 502 Self Priming Base Coat to overcome any settling that may occur prior to application of coating.
- D. Starting at one end of roof, apply one coat of 502 Self Priming Base Coat over the entire roof at the rate of 2.0-2.5 gallons per 100 sq. ft. (32-40 wet mils).
- E. Apply with heavy-duty airless spray equipment, 3/4" nap roller or soft roof brush.
- F. If applying by spray, back-roll coating to produce positive adhesion to the surface.
- G. Apply coating evenly, working in the same direction. Don't overwork the coating or attempt "touch-ups" while the coating is still wet.
- H. Allow base coat to dry 24 hours before applying subsequent coatings.
- I. Do not apply if rain is expected within 24 hours after application.

### **2.4 Repairs:**

- A. Once the 502 Self Priming Base Coat has fully cured, repairs and detail sealing can begin. Seal and repair all voids and cracks in the foam, where new foam joins existing foam, as well as seal all base flashings, roof penetrations, roof perimeters and drains with Karna-Flex and Resat-Mat prior to applying subsequent coating.
  - a. Apply Karna-Flex in a 1/16' - 1/8" thickness by 8" width directly over the area to repair with a 'chip-type' brush.

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- 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 18-25 lineal feet per gallon.
- e. Allow Karna-Flex to cure 48-72 hours before application of subsequent coating.

### **2.5 Finish Coat Application:**

- A. Application of the 502 RC-W Elasto-Kote 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 White to overcome any settling that may occur.
- C. Apply one coat of 502 RC-W Elasto-Kote White over the entire roof previously coated with 502 Self Priming Base Coat at the rate of 1.5 gallons per 100 sq.ft. (24 wet mils).
- D. Apply with heavy-duty airless spray equipment, 3/4" nap roller or soft roofing brush perpendicular to the previously applied 502 Self Priming Base Coat.
- E. If applying by spray, back-roll coating to produce positive adhesion to the surface.
- F. Apply coating evenly, working in the same direction. Don't overwork the coating or attempt "touch-ups" while the coating is still wet.
- G. Allow the coating to dry 24 hours before making any touch-ups or applying additional coating.

### **2.6 OPTIONAL Finish Coat Application:**

- A. Apply a second application of 502 RC-W Elasto-Kote White at the rate of 1.5 gallons per 100 sq. ft. perpendicular to the previously applied finish coat.
- B. As before, apply coating evenly working in the same direction. Don't overwork the coating or attempt "touch-ups" while the coating is still wet.
- C. Allow the coating to dry 24 hours before making any touch-ups or applying additional coating.
- D. Do not apply if rain is expected within 24 hours after application.

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## 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>           | 18-25 lineal feet per gallon |
| C. <b>5540 Resat-Mat:</b>             | 6" x 300' per roll           |
| D. <b>502 Self Priming Base Coat:</b> | 2.0-2.5 gal. per 100 sq. ft. |
| E. <b>502 RC-W Elasto-Kote White:</b> | 1.5-3.0 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 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 CORPORATION

**330 Central Avenue Clark, NJ 07066 • 800.526.4236 • Fax 732.388.9422**

**[www.karnakcorp.com](http://www.karnakcorp.com)**

**Manufacturing: Ft. Lauderdale, FL • Chicago, IL • Kingman, AZ**

**Warehouses: Dallas, TX • Rancho Cucamonga, CA • Tukwila, WA**