KARNAK CORPORATION
THE SEAL OF QUALITY

APPLICATION GUIDELINES

WHITE REFLECTIVE COATING SYSTEM

Substrates:
TPO, PVC, Hypalon, EP Single-Ply Membranes

Mastic Type:
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 and dry TPO, PVC, Hypalon or EP roofing systems with positive drainage. Roof surfaces should be weathered a minimum of four (4) years for best results.

BENEFITS & ADVANTAGES:

- Tough, SEBS rubber coating that forms a flexible, elastic film.
- Excellent adhesion to aged thermoplastic membranes such as TPO, PVC, Hypalon and EP.
- 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.
- Sustainable - Avoids roof replacement and adds life to the existing roof system.
- System seals flashings and seams to form a seamless membrane with excellent elongation and tensile strength properties.

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 **Karna-Flex:** An elastomeric, thermoplastic-rubber sealant formulated for sealing and repairing seams, flashings, curbs, fasteners, penetrations and general repairs to TPO, PVC, Hypalon and EP roofs.

1.3 **550 Patch-N-Go Self-Sealing Tape Fleece:** An absorbent fleece fabric with a highly adhesive butyl rubber compound used to seal seams and flashings on single-ply roofs.

1.4 **5540 Resat-Mat:** Spunlaced polyester fabric for reinforcing mastics and coatings when sealing seams and flashings on single-ply roofs.

1.5 **502 Self-Priming Base Coat:** A highly elastic, SEBS thermoplastic rubber-based elastomeric coating that bonds directly to TPO, PVC, Hypalon and EP single-ply membranes to produce a firm, self-priming base coat for subsequent coatings.

1.6 **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 TPO, PVC, Hypalon and EP roofing 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 and debris. 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.
D. Adhesion of the coatings should be tested over all applicable roof surfaces prior to the system application.

2.2 **Preparation:**

A. All single-ply roof membrane surfaces must be dry and thoroughly cleaned to remove all dirt, dust, rust, oxidation or other contaminants.
B. Cut away low handing 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.

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2.3 **Repairs:**

A. Seal and repair all seams, base flashings, roof penetrations, drains, cuts, holes, and splits with either 550 Patch-N-Go Self-Sealing Tape Fleece and Karna-Flex or 5540 Resat-Mat and Karna-Flex prior to applying coatings.

a. Option 1: Using 550 Patch-N-Go Fleece

i. Cut desired length of 550 Patch-N-Go Tape, remove release liner and position directly over seam or area to repair.

ii. Apply tape directly over the seam or area to repair exactly the first time. Press down firmly with a cloth pad or roller making sure the tape conforms to the roof surface. Smooth the tape working from the center out to the edges. The tape is pressure activated so this step is critical to ensure a tight seal.

iii. Apply Karna-Flex directly over the tape in a 1/16' thickness by 6" width to completely cover the fleece tape, feathering out to a smooth edge. Apply Karna-Flex with a 'chip-type' brush.

iv. Total coverage of Karna-Flex in this application is approximately 50 lineal feet per gallon.

v. Allow Karna-Flex to cure 24-48 hours before application of the subsequent coating.

b. Option 2: Using 5540 Resat-Mat

i. Apply Karna-Flex in a 1/16' - 1/8" thickness by 8" width directly over the seam or area to repair with a 'chip-type' brush.

ii. While still wet, immediately embed 6" wide Resat-Mat into the wet Karna-Flex. Use the brush to remove any wrinkles or fishmouths.

iii. 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.

iv. Total coverage of Karna-Flex in this application is approximately 20-25 lineal feet per gallon.

v. Allow Karna-Flex to cure 24-48 hours before application of the subsequent coating.

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2.4 **Primer/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 ¾" 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.

2.5 **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.
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.

2.6 **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. **799 Wash-N-Prep:** 1 quart per 1,600 sq.ft.

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B. **Karna-Flex:**
With 550 Patch-N-Go Tape: 50 lineal feet per gal.
With 5540 Resat-Mat 6": 20-25 lineal feet per gal.
C. **550 Patch-N-Go Self Sealing Tape Fleece:** 4" x 65.5' per roll
D. **5540 Resat-Mat:** 6" x 300' per roll
E. **502 Self-Priming Base Coat:** 1.5 gal. per 100 sq.ft.
F. **502 RC-W Elasto-Kote Finish White:** 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 above specification is offered as a service to the specifier. KARNAK Corporation 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.

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