KARNAK CORPORATION
THE SEAL OF QUALITY

APPLICATION GUIDELINES

WHITE REFLECTIVE COATING SYSTEM

Substrate:
EPDM

Mastic Type:
502MS Karna-Flex

Primer/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 EPDM roofing systems with positive drainage.

BENEFITS & ADVANTAGES:

- Tough, SEBS rubber coating that forms a flexible, elastic film.
- Excellent adhesion to prepared EPDM surfaces.
- 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 **507 SPC Primer/Wash:** Water-based cleaner designed specifically to safely clean and prepare EPDM roof surfaces for subsequent coatings and mastics.

1.2 **502MS Karna-Flex:** An elastomeric, thermoplastic-rubber sealant formulated for sealing and repairing seams, flashings, curbs, fasteners, penetrations and general repairs to EPDM roofs.

1.3 **5540 Resat-Mat:** Spunlaced polyester fabric for reinforcing mastics and coatings when sealing seams and flashings on single-ply roofs.

1.4 **502 Self-Priming Base Coat:** A highly elastic, SEBS thermoplastic rubber-based elastomeric coating that bonds directly to prepared EPDM membrane 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 EPDM roofing systems

PART 2 – APPLICATION:

2.1 **General:**

A. Read all applicable product data sheets and SDS for appropriate application and preparation guidelines.

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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 EPDM roof membrane surfaces must be dry and thoroughly cleaned to remove all dirt, dust, talc, rust, oxidation or other contaminants.
B. Cut away low handing branches and vegetation that extend onto the roof.
C. Starting at the low end of the roof, apply 507 SPC Primer/Wash to the entire roof surface in a 3-4' foot arc pattern using an agricultural type sprayer. Apply at the rate of 500 sq.ft. per gallon.
D. Allow the 507 SPC Primer/Wash to stand for approximately 10 minutes.
E. Clean EPDM roof with a commercial power washer (2,000-3,000 psi). When cleaning the EPDM, it should be done slowly and close to the surface in order to remove mica and inorganic release agents.
F. Rinse thoroughly with power washer. The rinse step may be done at a faster pace than the cleaning step. The final rinse water should be clean with no soap bubbles present. Allow roof to completely dry.
    a. Note: Due to the rinse water possible containing dirt, mold, mildew, algae and diluted 507 SPC Primer/Wash product, do not allow rinse to flow into drains or sewers leading to open bodies of water (lakes, ponds, streams, etc.). Do not dispose of the neat 507 SPD Primer/Wash into drains, sewers, or open bodies of water. Rinse water from downspouts could stain concrete parking lots and decks as it flows to municipal drains. Because of this, temporary hoses should be used to direct the rinse water.

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2.3 **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 0.5 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.

2.4 **Repairs:**

A. Seal and repair all seams, base flashings, roof penetrations, drains, cuts, holes, and splits with 502MS Karna-Flex and Resat-Mat in a three-course application prior to applying subsequent coating.
    a. 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.
    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.

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.

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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 the first coat of 502 RC-W Elasto-Kote Finish White at the rate of 1.25 – 1.5 gallons per 100 sq. ft. with 3/4" nap roller or airless spray equipment. Allow coating to dry 6-12 hours before application of subsequent coating.
D. Apply a second coat of 502 RC-W Elasto-Kote Finish White at the rate of 1.25 – 1.5 gallons per 100 sq. ft. perpendicular to the previously applied finish coat.
E. Apply each 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.
- Due to solvents in the coatings, EPDM membranes may wrinkle after application. This condition generally relaxes over time as the coating system weathers and the solvents evaporate.

A.	**507 SPC Primer/Wash:**	1 gallon per 500 sq. ft.
B.	**502MS Karna-Flex:**	20 lineal feet per gallon
C.	**5540 Resat-Mat:**	6" x 300' per roll
D.	**502 Self-Priming Base Coat:**	0.5 gal. per 100 sq. ft.
E.	**502 RC-W Elasto-Kote Finish White:**	2.5 - 3 gallons per 100 sq. ft.

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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.

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