KARNAK CORPORATION
THE SEAL OF QUALITY

APPLICATION GUIDELINES

WHITE REFLECTIVE COATING SYSTEM

Substrates:
Spray Polyurethane Foam (SPF) – Previously Coated

Mastic Type:
Karna-Flex WB

Base Coat:
407 EPDM & SPF Base Coat

Finish Coat:
505HS Mohave Coat White

The following KARNAK Roof Restoration System is intended to be applied over sound and dry Spray Polyurethane Foam (SPF) roofing systems with positive drainage that have been previously coated.

BENEFITS & ADVANTAGES:

- System seals flashings and penetrations to form a seamless elastomeric membrane with exceptional elongation and tensile strength properties.
- Substrate specific base coat has excellent adhesion to SPF surfaces.
- 505HS Mohave Coat White 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 **Karna-Flex WB:** An acrylic elastomeric mastic formulated for sealing and repairing seams, flashings, curbs, fasteners, penetrations and general repairs to SPF 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 **407 EPDM & SPF Base Coat:** 100% elastomeric acrylic coating specifically designed as a base coating for improved adhesion to Spray Polyurethane (SPF) roofing membranes and surfaces. The coating produces a film with excellent blister resistance.

1.5 **505HS Mohave Coat White:** A high solids, highly reflective, elastomeric roof coating exhibiting outstanding color stability, flexibility, mildew resistance and weatherability. Ideally suited for application over substrate specific base coat.

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, debris and loose foam.
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. All areas where the SPF has degraded 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 and holes with Karna-Flex WB and 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 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.

2.3 **Repairs:**

A. 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 and drains with Karna-Flex WB and 5540 Resat-Mat prior to applying coatings.

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a. Apply Karna-Flex WB in a 1/16' - 1/8" thickness by 8" width directly over the area to repair with a 'chip-type' brush.
b. While still wet, immediately embed 6" wide Resat-Mat into the wet Karna-Flex WB. 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 WB over the embedded Resat-Mat to completely cover the fabric, feathering the Karna-Flex WB out to the roof surface. No fabric should be visible.
d. Total coverage of Karna-Flex WB in this application is approximately 18-25 lineal feet per gallon.
e. Allow Karna-Flex WB to cure 24-48 hours before application of the subsequent coating.

2.4 **Base Coat Application:**

A. Application of 407 EPDM & SPF Base Coat should take place when temperatures are 40°F-100°F and humidity levels are 85% or less.
B. Thoroughly mix the 407 EPDM & SPF Base Coat to overcome any settling that may occurred. Mix the product to a homogenous consistency.
C. Starting at one end of the roof, apply one coat of 407 EPDM & SPF Base Coat at the rate of 1.5-2 gallons per 100 sq.ft. (24-32 wet mils) with a 3/4" nap roller or airless spray equipment. If spray applying be sure to back roll the base coat to achieve maximum adhesion and even coverage.
D. Apply coating evenly, working in the same direction. Don't overwork the base coat or attempt "touch-ups" while the coating is still wet. Allow base coat to dry 6-12 hours before coating over.
E. Do not apply if rain is expected within 24 hours after application.

2.5 **Finish Coat Application:**

A. Application of 505HS Mohave Coat should take place when temperatures are 40°F-100°F and humidity levels are 85% or less.
B. Thoroughly mix the 505HS Mohave 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 505HS Mohave Coat at the rate of 1.5 gallons per 100 sq.ft. (24 wet mils) with 3/4" nap roller or airless spray equipment. If spray

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applying be sure to back roll the base coat to achieve maximum adhesion and even coverage.

D. Apply the 505HS Mohave Coat perpendicular to the 407 EPDM & SPF Base Coat to achieve an even coverage.
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.
B.	**Karna-Flex WB:**	18-25 lineal feet per gallon
C.	**5540 Resat-Mat:**	6" x 300' per roll
D.	**407 EPDM & SPF Base Coat:**	1.5 - 2 gal. per 100 sq.ft.
E.	**505HS Mohave Coat White:**	1.5 gal. per 100 sq.ft.

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