KARNAK CORPORATION
THE SEAL OF QUALITY

APPLICATION GUIDELINES

SILVER REFLECTIVE COATING SYSTEM

Substrates:
Metal

Mastic Type:
229AR Elastomeric Trowel Grade

Finish Coat:
298 Alumin-R

The following KARNAK Roof Restoration System is intended to be applied over sound metal roofing systems.

BENEFITS & ADVANTAGES:

- Tough, flexible, rubber-like reflective coating with excellent weather resistance for longer service life.
- 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.
- Encapsulates surface rust on properly prepared metal surfaces and inhibits the formation of new rust.
- Sustainable - 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 **229AR Elastomeric Trowel Grade:** A single component, SBS rubber reinforced asphalt mastic for sealing and repairing seams, flashings, curbs, fasteners, penetrations and general repairs to all types of metal roofs prior to applying subsequent coating.

1.3 **5540 Resat-Mat:** Spunlaced polyester fabric for reinforcing mastics and coatings over irregular, rough surfaces as well as smooth surfaces.

1.4 **298 Alumin-R:** A premium grade, single component, SBS rubber modified asphalt reflective coating exhibiting outstanding color stability and weatherability.

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, loose coating, heavy flaking or pitting rust, grease, oil, foreign contaminants and debris.
C. All fasteners should be re-tightened or replaced as necessary. Stripped fasteners must be replaced with larger fasteners. All fasteners should include a neoprene washer.
D. Rusted through panels or sections must be replaced.

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E. Rusted areas should be wired brushed down to clean, stable metal.
F. Damaged skylights, if applicable, should be removed and replaced.
G. Remove all non-functioning vents, penetrations, antenna and non-working equipment.
H. Adhesion of the coatings should be tested over all applicable roof surfaces prior to the system application.

2.2 **Preparation:**

A. Cut away low handing branches and vegetation that extend onto the roof.
B. Remove all loose coating and repairs. Silicone caulking must be removed prior to coating system application.
C. Power-wash all surfaces to be coated with 799 Wash-N-Prep Roof Cleaner and water maintaining a minimum of 3,000 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 **Seam Sealing - Horizontal Seams & Penetrations:**

A. All horizontal seams, penetrations and cracks should be sealed using 6” wide 5540 Resat-Mat and 229AR Elastomeric Trowel Grade.
    a. Apply 229AR Elastomeric Trowel Grade over the seam in a 1/16” thickness by 8” width using a 3” or 4” ‘chip type’ brush. Cut bristles half way down to stiffen brush.
    b. While still wet, immediately embed 6” wide Resat-Mat into the wet 229AR Elastomeric Trowel Grade. Brush Resat-Mat to smooth out and removed any wrinkles or fishmouths.
    c. Apply a second and final application of 229AR Elastomeric Trowel Grade over the embedded Resat-

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Mat. Apply at an average thickness of 1/16" by 8" wide to completely cover the Resat-Mat, feathering out the 229AR Elastomeric Trowel Grade on to the roof surface. No fabric should be visible.

d. Total coverage of 229AR Elastomeric Trowel Grade in this application is approximately 20 lineal feet per gallon.
e. Allow all repairs to cure 24-48 hours before applying subsequent coating.

2.4 **Seam Sealing - Vertical Seams:**

A. For vertical seams less than 1/16" wide brush apply a 2" wide 'bead' by 1/16" thick application of 229AR Elastomeric Trowel Grade along the seam, back brushing the coating into the seam.
B. Total coverage of 229AR Elastomeric Trowel Grade in this application is approximately 160 lineal feet per gallon
C. For vertical seams open greater than 1/16" wide treat in the same manner as a Horizontal Seam and three-course with 229AR Elastomeric Trowel Grade and 5540 Resat-Mat as described above.
D. Allow all repairs to cure 24-48 hours before applying subsequent coating.

2.5 **Fastener Sealing:**

A. All fasteners must receive a dollop (swirl coat) of 229AR Elastomeric Trowel Grade using a 1" or 2" chip brush to completely encapsulate the fastener. Cut bristles halfway down to stiffen brush.
B. Applicator should "swirl" apply the 229AR Elastomeric Trowel Grade around the faster to ensure there is no trapped air between the 229AR Elastomeric Trowel Grade and the fastener.
C. 1 gallon of 229AR Elastomeric Trowel Grade covers approximately 250 fasteners in this application.
D. Allow all repairs to cure 24-48 hours before applying subsequent coating.

2.6 **Finish Coat Application:**

A. Application of 298 Alumin-R should take place when temperatures are 50°F-100°F and humidity levels are 85% or less. The best curing takes place when coating is applied during intermittent or full sun exposure.
B. Mechanically mix 298 Alumin-R for several minutes just prior to using.
C. Starting at the top of the roof, apply one coat of 298 Alumin-R at the rate of 1.5 – 2 gallons per 100 sq.ft. with heavy-duty

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airless sprayer (recommended for application over corrugated metal panels) or soft roofing brush.

D. If applying by brush, apply the coating in one direction. Do not overwork the coating.
E. If spraying, apply with a 50% overlap following the same direction to assure proper coverage.
F. Don't overwork the coating or attempt "touch-ups" while the coating is still wet.
G. Aluminum coating must be allowed to cure 24-48 hours before exposure to moisture of any type.

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.	**799 Wash-N-Prep:**	1 quart per 1,600 sq.ft.
B.	**229AR Elastomeric Trowel:**	
	Horizontal Seams	20 lineal feet per gallon
	Vertical Seams	160 lineal feet per gallon
C.	**5540 Resat-Mat:**	6" x 300' per roll
D.	**298 Alumin-R:**	1.5 - 2 gal. per 100 sq.ft.

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