

ELASTOMERIC COATING SYSTEM

Substrate:

BUR with Gravel

Mastic Type:

**229AR Elastomeric
Trowel Grade**

Primer:

108 Asphalt Primer

Coating:

**229AR Elastomeric
Brush Grade**

The following KARNAK Roof Restoration System is intended to be applied over sound, dry, existing gravel covered built-up roofing with positive drainage.

BENEFITS & ADVANTAGES:

- Tough, flexible elastic, rubber-like film with excellent weather resistance.
- Avoids roof replacement and adds life to the existing roof system.
- Application causes no disruption of activities inside building.
- Primer penetrates to revitalize the base surface.
- Rubberized asphalt coating covers weathered and cracked surfaces.

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 flashings, curbs, fasteners, penetrations and general repairs to inactive coal tar 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 **108 Asphalt Primer:** General purpose, penetrating asphalt primer that penetrates pores to revitalize the base surface for subsequent coatings to be applied.
- 1.5 **229AR-Elastomeric Brush Grade:** A single component, SBS rubber reinforced asphalt which forms a highly elastomeric roof coating barrier.

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 gravel. Do not apply over brittle roof surfaces.
- C. Remove as much gravel as possible without damaging the existing roof system by hydro vacuuming the roof to leave as smooth and even a surface profile as possible prior to the start of the coating application.

RESTORATION COATING SYSTEM

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- D. If existing gravel is to be reused, it must be washed free of dirt and silt.
- E. A moisture survey should 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. New cold-applied modified bitumen roofs and should weather 90-180 days before installing coating system. New BUR roofs should also age 90-180 days unless special considerations are taken.
- F. Adhesion of the coatings should be tested over all applicable roof surfaces prior to the system application.
- G. A mockup using 229AR Elastomeric Brush Grade should be done to verify coverage amounts needed prior to bidding or quoting the project.
- H. Do not apply any coating if rain is expected within 24 hours after application.

2.2 Preparation:

- A. Repair all cracks, splits, holes and large blisters with 229AR Elastomeric Trowel Grade 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 hanging branches and vegetation that extend onto the roof.
- C. Surfaces not cleaned by hydro vacuuming should be power-washed 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 base flashings, roof penetrations, drains, cracks, holes, large blisters and splits with 229AR Elastomeric Trowel Grade and 5540 Resat-Mat prior to applying coating.
 - a. Scrape area to repair clean to remove all gravel.
 - b. Apply 229AR Elastomeric Trowel Grade in a 1/8" thickness by 8" width directly over the area to repair with a trowel.
 - c. While still wet, immediately embed 6" wide Resat-Mat into the wet 229AR Elastomeric Trowel Grade. Use the brush to remove any wrinkles or fishmouths.
 - d. Immediately trowel apply an additional 1/8" thick by 8" wide application of 229AR Elastomeric Trowel Grade over the embedded Resat-Mat to completely cover the fabric, feathering the 229AR Elastomeric Trowel Grade out to the roof surface. No fabric should be visible.
 - e. Total coverage of 229AR Elastomeric Trowel Grade in this application is approximately 18 lineal feet per gallon.
 - f. Allow 229AR Elastomeric Trowel Grade to cure 48-72 hours before application of subsequent coating.

2.4 Primer Application:

- A. Application of 108 Asphalt Primer should take place with temperatures are 40°F-100°F and humidity levels are 85% or less.
- B. Prime entire roof surface with 108 Asphalt Primer at the rate of 0.5 to 1 gallon per 100 sq. ft., depending on the porosity and irregularity of the surface.
- C. Apply 108 Asphalt Primer by roof brush or airless spray equipment.
- D. Allow primer to cure 8-10 hours before applying subsequent coatings.

2.5 Coating Application:

- A. Application of the 229AR Elastomeric Brush Grade should take place when temperatures are 40°F-100°F and humidity levels are 85% or less.
- B. Mix 229AR Elastomeric Brush Grade thoroughly just prior to using. Ensure product is mixed to a homogenous consistency.
- C. Starting at one end of the roof, pour directly from the container and spread with a roof brush one coat of 229AR Elastomeric Brush Grade at the rate of 7 to 8 gallons per 100 sq. ft.
- D. Apply the coating evenly and brush in all directions to force the coating in cracks and crevices.

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- E. If applying by spray, use a standard mastic pump and apply in one coat with a 50% overlap of the spray pattern to obtain a uniform and continuous film.
- F. After application of 229AR Elastomeric Brush Grade is completed, standard gravel meeting ASTM D 1863 (no pea-size gravel) should be applied at the rate of 400 lbs. per 100 sq. ft. resulting in full and complete coverage of the roof surface with approximately 50 percent of the gravel solidly adhered in the asphalt restaurant.

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.

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|---|----------------------------|
| A. 799 Wash-N-Prep: | 1 quart per 1,600 sq. ft. |
| B. 229AR Elastomeric Trowel Grade: | 18 lineal feet per gallon |
| C. 5540 Resat-Mat: | 6" x 300' per roll |
| D. 108 Asphalt Primer | 0.5-1 gal. per 100 sq. ft. |
| E. 229AR Elastomeric Brush Grade: | 7-8 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 recommended use of KARNAK products listed are predicated on tests believed to be reliable. However, since such application and use is beyond our control, we do not guarantee the results to be obtained. 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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