

PROGUARD MIP (MANUFACTURED IN PLACE) SPECIFICATION MINERAL MODIFIED BITUMEN MEMBRANE SYSTEM

10 YEAR STANDARD ACRYLIC (FABRIC SEAMS)

INSTALLATION GUIDE SPECIFICATION 07570

PART 1 GENERAL

1.01. SUMMARY

A. Provide labor, materials, equipment and supervision necessary to install spray-applied seam polyester reinforced elastomeric acrylic coating of system as outlined in this specification for the installation of MIP Membrane over a Mod Bit Membrane.

B. The manufacturer's application instruction for each product utilized is to be considered part of these specifications and should be followed at all times.

1.02. QUALITY ASSURANCE

A. Supplier Qualifications: The Proguard MIP Membrane System, as supplied by ProGuard Group (PGG) is approved for use on the project.

B. Applicator Qualifications: The applicator shall be approved by The Proguard Group to apply the system. Manufacturer's written verification of applicator approval is required.

C. Field Quality Control: Upon completion of the Proguard Metal Refurbish System installation, an inspection by The Proguard Group or PGG's designated third party inspection firm may be required. Consult with PGG for details and warranty requirements.

1.03. SUBMITTALS

A. Product Data: Submit Proguard product data sheets and installation instructions.

B. Submit material safety data sheets.

1.04. PRODUCT DELIVERY, STORAGE AND HANDLING

A. Containers and Packaging: Deliver materials in original sealed containers, clearly marked with manufacturer's logo, full product name, and lot number(s).

B. Storage and Handling: Store materials between 40°F and 100°F with careful handling to prevent damage to products. If conditions exceed these ranges, special consideration in storage must be taken. Do not store at high temperatures or in direct sunlight.

C. Protection: Protect all materials from freezing and other damage during transit, handling, storage, and installation.

PROGUARD MIP MODIFIED BITUMEN SPEC - 10 YEAR



1.05. PROJECT CONDITIONS

- A. Consult the coating manufacturer for recommendations on the proper system to use on project substrate and at expected substrate and ambient temperatures. Under no condition shall the coating be applied when the substrate temperature is expected to be below 40°F or is expected to reach freezing within 24 hours. Do not apply coatings when wind velocity is above 15 mph.
- B. Do not apply materials unless surface to receive 100% acrylic coating is clean and dry.
- C. If any area under the Cap Sheet is saturated, it must be removed before application.
- D. The entire system shall be fully adhered to the surface on which it is applied. Voids left under the system caused by bridging is not acceptable.
- E. Install all material in strict accordance with all published safety, weather, or applicable regulations of the manufacturer and/or federal agencies, which have jurisdiction.

1.06. DETAIL WORK

- A. Refer to ProGuard's Detail Drawings for preparation and finishing of drains, vents, ducts, flashing, parapet walls, etc. The contractor should outline this work before work commences, and shall be performed observing good trade practices.

PART 2 PRODUCTS

2.01. SPRAY-APPLIED ELASTOMERIC, ACRYLIC COATING SYSTEM

- A. The coating shall be the spray applied ProGuard MIP membrane coating system, manufactured by The ProGuard group.
- B. Physical Properties of Cured Coating System:

PROPERTIES	ASTM METHOD	RESULT	PG-2100 EC
Tensile Strength, psi (Max@ 73°F)	06083/ 0-412	Minimum 200	>200
% Elongation @ Break (73°F)	06083/ 0-412	Minimum 100	>100%
Wet Adhesion to Specified Substrate	06083	Minimum 2.0 ply	>2.0
Permeance, perms	06083	Maximum 60	<60
Volume Solids %	06083	> 50	55.0
Weight Solids %	06083	> 65	65.0

PROGUARD MIP MODIFIED BITUMEN SPEC - 10 YEAR



2.02. ACCESSORIES AND MISCELLANEOUS MATERIALS

- A. Polyester fabric must be at least 3.ounce such as Hanes PF
- B. Flashing and waterproof coverings for expansion joints shall be compatible with the PG coatings.
- C. Miscellaneous materials such as adhesives, elastomeric caulking compounds, Metal, vents and drains shall be a composite part of the roof system and shall be compatible with the coating materials.

PART 3 EXECUTION

3.01. MANUFACTURER'S INSTRUCTIONS

- A. Compliance: Comply with manufacturer's product data, including product technical bulletins and product guide specification instructions

3.02. EXAMINATION

- A. Inspect surfaces, which will receive the coating system to make sure they are clean, smooth, sound, properly prepared, and free of moisture, dirt, debris, or other contamination.
- B. Verify that all roof penetrations, mechanical equipment, cants, edge metal, and other on-roof items are in place and secure.
- C. Verify that all critical areas around the immediate vicinity of the spray area are suitably protected.
- D. Verify that all roof drains are clean and in working order.
- E. Verify that all air conditioning and air intake vents are suitably protected or closed.

3.03. SURFACE PREPARATION

A. GENERAL

- a. Existing roofing materials shall be securely fastened to meet wind uplift requirements.
- b. All roofing surfaces shall be free of loose material, grease, soft asphalt, and other materials that could interfere with adhesion. Typically this can be achieved by power washing. Severe contamination may require industrial cleaning products. Check with your Proguard Representative for recommendations.
- c Areas of ponded water must be repaired with the application of SPF or the installation of additional drains.

B. MOD BIT MEMBRANE

- a The Cap Sheet roof should be repaired and made watertight according to manufacturers recommended procedures.

PROGUARD MIP MODIFIED BITUMEN SPEC - 10 YEAR



- b. The whole roof should be coated with Proguard SS Base bleed resistant basecoat to achieve 10 dry mils (approximate rate of 1 1/2 gallon per 100 square ft)
- c. All penetrations and edges should be sealed with polyester fabric and with PG-Caulk Flashing Sealant and polyester fabric.
- d. Reseal around all mechanical equipment and roof penetrations with PG-Caulk Flashing Sealant and polyester fabric.
- f. All valley areas, waterways, drain areas or other area where there is the possibility of water accumulation
 - i. Apply Proguard SS Base in a 45 inch wide strip at a rate of 2 gallons per 100 square feet.
 - ii. In the wet coating. Immediately embed the 40 inch wide Hanes-40 "polyester reinforcing fabric. To insure a completely smooth surface use a light broom to saturate the fabric and work out all fabric wrinkles and fish mouths.
 - iii. Immediately apply a second coat of ProguardSS Base to surface of the fabric at a rate of 1 gallon per 100 square feet.
 - iv. Both the first and second coats shall extend at least two inches beyond the edges of the polyester
 - v. Large areas may need multiple widths of fabric. In these areas the fabric should be overlapped at least 4 inches.
 - vi. Coating and fabric should always extend at least six inches above the maximum potential waterline.
- g. All seams should receive coating and fabric as follows:
 - i. Apply PG SS Base Basecoat at the rate of 20 dry mils, approximately 6 inches wide, at all seams, horizontal and vertical. Immediately embed 4 inch wide Hanes-40 polyester reinforcing fabric into the wet coating, with a second coat of basecoat coat being immediately applied on top of the fabric at the rate of 10 dry mils. Both the first and second coats shall extend a minimum of 2 inches beyond the edges of the polyester reinforcing fabric
- h. Allow to dry for at least 12 to 24 hours, preferably 72 hours.

3.04. APPLICATION

A. Elastomeric Acrylic Coating System:

- i. After thorough preparation as necessary, including the application of the self leveling basecoat, the entire roof shall receive additional cool roof coating to achieve total minimum dry film thickness 30 dry mils of coating (including basecoat), additional coating should be applied evenly in two separate coats.
- ii. The first topcoat coat shall be spray or roller applied at the rate of a minimum of 10 dry mils of coating (a rate of approximately 1.25 gallons/sq)

PROGUARD MIP MODIFIED BITUMEN SPEC - 10 YEAR



- b. Apply the second Topcoat at a rate of approximately 1.25 gallons per 100 square feet to achieve the specified thickness
- c. These minimum recommendations for material usage are for ideal conditions. The number of gallons per 100 square feet may need to increase due to uneven application, roof profile, wind conditions while spraying, or other variables.
- d. No coating shall be applied if weather will not allow it to dry prior to exposure to precipitation or freezing temperatures.
- e. Allow to thoroughly dry before exposing to foot traffic.

3.05. FIELD QUALITY REQUIREMENTS

A. Inspection by the coating manufacturer's representative shall be made to verify the proper installation of the system. Any areas that do not meet the minimum standards for application as specified herein shall be corrected at the contractor's expense.

3.06. CLEANING

A. Surfaces not intended to receive spray polyurethane foam insulation and/or elastomeric coating materials shall be protected during the application of the system. Should this protection not be effective, or not be provided, provided, the respective surfaces shall be restored to their proper conditions by

B. Cleaning, repairing or replacing. All debris from completion of work shall be completely removed from the project site. The site shall be left in a broom-clean condition.

3.07. MATERIAL

B. The following materials are available from The Proguard group:

- a. ProGuard 2100 EC series-100% acrylic, high performance elastomeric roof coating
- b. ProGuard SS Base- Self leveling granulated surface primer
- c. PGcaulk - Acrylic Flashing sealant.
- d. Hanes fabric 40 series - 40 inch Polyester Fabric
- e. Hanes fabric 4 series - 4" Polyester Fabric

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. The prospective user should determine the suitability of our materials and installation recommendations before adopting them for commercial use.
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