



HP-2 PARTIALLY REINFORCED MEMBRANE SYSTEM

Installation Guidelines

DESCRIPTION

The Acrymax HP-2 Systems are fluid applied partially reinforced membrane systems for weatherproofing historic metal or “tin” roofs or other acceptable substrates. Critical areas of the roof such as seams, flashing details, valleys, gutters and other areas requiring strengthening are reinforced with high strength polyester reinforcement. After completion of all reinforcement the entire roof including the reinforced areas are coated with 2 to 3 coats of Acrymax coatings depending on the desired final dry film thickness. The HP-2 systems cure to become durable, weatherproof, fully adhered elastomeric membranes with superior durability and weatherability. These membranes are easily maintainable and can be recoated periodically to extend the life of the system. The HP-2 Systems will yield a final membrane thickness of 40 - 50 mils on the reinforced areas and 15 - 25 mils on the unreinforced areas.

Acrymax coatings are waterborne materials that are safe and easy to apply. They provide an environmentally responsible method for roofing and weatherproofing applications.

APPLICATION EQUIPMENT

Acrymax coatings can be applied by brush, roller, or airless spray. Airless spray is the most efficient method of application where proper conditions and expertise exist. Spray equipment should be capable of 2500 – 3000 psi with output of 2 - 2.5 gallons per minute. A “Reverse-a-Clean” tip with .027 to .041 orifice

size is recommended. Application by roller or brush may require additional coats to achieve uniform membrane thickness, but total material requirements will generally remain the same. Rollers should be medium or long nap. (3/4” recommended)

INSTALLATION

Installation of the HP-2 system is accomplished in five (5) basic steps:

1. Repair
2. Preparation and Priming
3. Installation of Reinforcement
4. Application of Elastomeric Coatings
5. Inspection

1) Repair

Prior to the application of the Acrymax HP-2 System all necessary substrate and structural repairs must be made. If any unusual conditions exist then Preservation Products should be consulted before proceeding with application of the HP-2 System. Good roofing and construction practices must always be used.

2) Preparation and Priming

Acrymax coatings must have a clean surface to adhere to. Proper surface preparation is critically important for successful applications of all coating systems! All dirt, debris, oils, or other contaminants that can interfere with proper adhesion of coatings must be removed by the most effective method possible. High-pressure water is the recommended method when appropriate. Vacuuming, stiff brooming, wire-brushing, and low-pressure water washing also can be used. When high-pressure water washing is used it should be done at a pressure suitable to remove embedded dirt and contaminants without damaging the substrate that is being cleaned. Pressures of 2000-2500 psi are commonly used. Cleansers such as Trisodium Phosphate (TSP) or TSP substitutes that are suitable for paint preparation can be used as necessary. When cleansers are used make sure surfaces are thoroughly rinsed and no residue remains.

A tape test should be used to determine acceptability of the cleaned surface for coating application. This is done by applying masking tape to the surface to be coated, and then

peeling off the tape. If the adhesive side of the tape shows contaminants that will interfere with the adhesion of the coatings, then further cleaning or use of a primer may be necessary. Priming is not a substitute for proper cleaning. Immediately prior to coating application dust that may collect on the roof surface should be blown off with blowers.

“Tin” or metal surfaces:

Any existing coatings on surfaces to be coated with Acrymax must be removed or if allowed to remain they must be firmly adhered and in good condition. **Rust and Corrosion:** It is very important to recognize that inadequate preparation of corroded metal surfaces can lead to premature failure of the coating system. Rust must be removed using the most rigorous method suitable for the particular job. Wire brushing or sanding or other suitable methods must be done as necessary. Coatings must not be applied over loose untreated rust. After rust has been removed surfaces should be primed with HP-7000 Rust Inhibitive primer applied immediately after cleaning to prevent rust from reoccurring. HP-7000 should be applied at the rate of 1 gallon per 200-250 square feet. On roofs that exhibit minor or localized corrosion HP-7000 can be used to spot prime these areas. On other roofs HP-7000 may be required on the entire roof. All bare metal surfaces should be primed with a HP-7000 prior to applying coating system. Primer should only be used after thorough preparation of the surface to be primed. If severe rust is present it may be appropriate to use a rust converter on the rusted areas prior to using rust inhibitive primer. Consult Preservation Products for complete information on treatment of rusted metal.

Existing asphalt roofs:

Power washing at 2000-2500 psi is the best method for removing oxidation and contaminants from existing asphalt roofs. A low pressure wash with stiff brooming can be done if power washing is not possible. If after washing the surface still has a chalky finish then Acrymax AF-127 Primer should be used. AF-127 is applied at the rate of 200 – 250 square feet per gallon.

Concrete surfaces:

New concrete must be allowed to cure for 30 days. Power wash to remove all contaminants. If necessary acid etch with muriatic acid as per manufacturers instructions. After cleaning, prime surface with Acrymax AF-100 applied at the rate of 200 – 300 square feet per gallon.

Preparation of other surfaces:

Consult Preservation Products about preparation of other surfaces.

3) Installation of Reinforcement

All seams, flashings, transitions, and other critical areas requiring reinforcement should be completed with Poly-1 and Acrymax HP-1000 in the following manner:

1. Apply liberal coat of HP-1000 to area to be reinforced.
2. Embed appropriate width Poly-1 polyester fabric into this wet coat of HP-1000 making sure fabric conforms to surface and all edges are laid flat.
3. Apply additional Acrymax HP-1000 to completely saturate fabric.

The quantity of HP-1000 required for the reinforcement process depends on the fabric width used. The following guideline coating application rates per 100 lineal feet of reinforcement fabric should be used:

| | | | | | |
|--------------|-----|-----|-----|-----|------|
| Fabric Width | 4 | 6 | 12 | 18 | 40 |
| Gallons | 1.0 | 1.5 | 3.0 | 4.5 | 10.0 |

To calculate total material requirements for installing reinforcement determine total area in square feet to be reinforced. This number should be divided by 100 and then multiplied by 3. The result is the total number of gallons of HP-1000 required to install all reinforcement.

Note: During final application of the finish coats special attention should be given to these critical areas to build adequate membrane thickness and to create a weatherproof seal

4) Application of Elastomeric Coatings

Apply Acrymax coatings to achieve the desired minimum dry film thickness. Elastomeric coating systems will perform better when applied to achieve thicker dry films. The minimum dry film thickness to achieve good elastomeric properties is 15 mils. Number of

coats, coating application rates, and required dry film thicknesses are determined by the requirements of the specific project. Contrasting colors should be used for each coat to insure complete coverage.

15 Mil Membrane

1. Apply base coat of Acrymax HP-1000 at minimum application rate of 1 gallon per 100 sq. ft.
2. Apply finish coat of Acrymax HP-5000 at minimum application rate of 1 gallon per 100 sq. ft.

20 Mil Membrane

1. Apply base coat of Acrymax HP-1000 at minimum application rate of 1.25 gallons per 100 sq. ft.
2. Apply finish coat of Acrymax HP-5000 at minimum application rate of 1.25 gallons per 100 sq. ft.

25 Mil Membrane

1. Apply base coat of Acrymax HP-1000 at minimum application rate of 1 gallon per 100 sq. ft.
2. Apply intermediate coat of Acrymax HP-5000 at minimum application rate of 1 gallon per 100 sq. ft.
3. Apply finish coat of Acrymax HP-5000 at minimum application rate of 1 gallon per 100 sq.ft.

Notes:

1. Allow 2 to 4 hours minimum dry time between coats.
2. Gutter areas should be reinforced and coated with a minimum of 3 finish coats.
3. HP-1000 is always used as the basecoat for the HP-2 Systems. HP-1000 can also be used for the intermediate and finish coats. HP-5000 exhibits better overall physical properties that are beneficial as a finish coat.

5) INSPECTION

Inspect entire surface area coated and apply additional Acrymax Coatings as necessary to insure complete and uniform coverage. Special attention should be given to all reinforced areas to insure a weathertight seal.

LIMITATIONS

These are general guidelines for application of the Acrymax HP-2 Systems. The material

requirements and number of coats may vary depending on the specific job requirements. If unusual conditions exist, contact Preservation Products at 610-565-5755. Acrymax Fluid Applied Elastomeric roofing systems must be applied to structurally sound substrates. All surfaces must be clean and dry before application of coating system. The suitability of Acrymax coatings or systems for an intended use shall be solely up to the user. Drying time and coverage are not guaranteed. Acrymax roofing systems must not be applied over wet insulation or related materials. Failure of the substrate or failure of any existing coatings left remaining on surface that is coated does not constitute failure of the Acrymax coating or system. The Acrymax HP-2 Systems are designed for use on well drained roofs, however, they are acceptable for use where poor drainage causes temporary ponding. Acrymax Coatings should not be applied when rain or freezing temperatures are expected within 24 hours of application or before coating can dry.

WARRANTY

Limited material warranties are available for the HP-2 System when all materials are used in strict accordance with all of Acrymax's and Preservation Products written requirements and recommendations. The sole responsibility under this limited material warranty is for defective material and the only obligation shall be to either replace or refund the purchase price of the materials or part thereof proven to be defective. No statement by anyone may supersede this limited material warranty, except when done in writing by the Technical Service Office of Preservation Products in Media, PA.

SAFETY NOTES

1. Users should familiarize themselves with appropriate Material Safety Data Sheets (MSDS). MSDS should be available at all worksites where materials are being used.
2. Materials must be applied in accordance with all applicable local, state, and federal regulations.
3. A respirator should be used when spraying Acrymax coatings to protect from overspray particles.

4. When applying reflective white coatings to a roof, sunglasses should be used to protect eyes from glare.
5. Handle on pails should only be used to carry pail when on ground or roof and should not be used to hoist pail from ground to roof.
6. Translucent light panels should be clearly marked and safely protected from foot traffic.
7. All work must be performed in conformance with the safety procedures outlined in the current FALL PROTECTION GUIDE as published by the Occupational Safety and Health Administration (OSHA).
8. Care should be taken to avoid overhead powerlines and arcing potential.
9. Comply with all federal, state, and local regulations regarding lead based paint or other hazardous materials that may be encountered. Visit <http://www.epa.gov/lead> for information regarding lead paint that may be encountered during renovations.

GENERAL NOTES

Acrymax Coatings are waterborne, and as such application of these materials must not be done when rain or other conditions such as fog

or heavy dew are possible before coating can dry sufficiently to be resistant to these occurrences. Drying time is affected by numerous factors including temperature, direct sunlight, relative humidity, air movement, thickness and color of applied coating, etc.. Under proper conditions dry times for coatings will be from 1 to 2 hours, but under adverse conditions dry times can range from 8-12 hours or more. Application should not be done when temperatures are below 45°F or expected to drop below freezing before coating is dry. Special attention should be given to the dew point temperature because when this temperature is reached and dew forms the drying process of the coatings will cease.

PRESERVATION PRODUCTS INC

221 Brooke Street

Media, PA 19063

610-565-5755

800-553-0523

610-891-0834 Fax

Website: www.preservationproducts.com

e-mail: info@preservationproducts.com

Acrymax® is a registered trademark of Acrymax Technologies, Inc.

Publication: HP-2 Application Guidelines - June 2009