

This document is intended to provide guidelines for the proper specification and application of Acrymax Coating Systems and Acrymax materials as furnished by Acrymax Technologies Inc. These guidelines are not project specific and should be modified as required to meet the needs of particular projects. It is the responsibility of the owner, specifier, and/or applicator to ensure that these guidelines, if used, are consistent with the requirements of the project.

Guideline Specification ACRYMAX ARS-3-A20

Protective – Reflective – Color Coating System for Asphalt Roofs 099653 Elastomeric Coatings

PART 1 – GENERAL

1.01 SUMMARY

- A. Provide labor and materials necessary to install a protective, architectural color, or reflective coating system
- B. Section(s) related to this section may include:
 - 1. Painting and Coating Division 09 - Section 099000

1.02 REFERENCES

- A. American Society for Testing and Materials (ASTM) Annual Book of ASTM Standards.
 - 1. D 6083 Standard Specification for Liquid Applied Acrylic Coating Used in Roofing.
 - 2. Volume 04.04 Roofing and Waterproofing
 - 3. Volume 06.01 Paint- Tests for Chemical, Physical, and Optical Properties; Appearance.

1.03 SYSTEM DESCRIPTION

- A. The ARS-3-A20 System is an elastomeric coating system designed to provide protection, architectural color, or reflectivity to acceptable asphalt substrates. This system provides for a 20 mil membrane. Coatings to be used in coating system shall meet or exceed all requirements listed in ASTM D-6083 Standard Specification for Liquid Applied Acrylic Coatings Used in Roofing.

1.04 SUBMITTALS

- A. Submit Acrymax product data sheets and installation instructions.
- B. Verify field measurements and submit materials list, including quantities to be used to achieve specified membrane thickness.
- C. Submit 2 year applicator warranty against defects in workmanship. Warranty shall be signed by an authorized representative of the applicator.
- D. Submit sample copy of Acrymax 5 Year Material Warranty.
- E. Submit Material Safety Data Sheets (MSDS) for all coating products to be used.
- F. Submit manufacturers standard color chart, or if special colors, prepare and submit representative samples of each color specified.
- G. Submit applicator's completed project reference list.

1.05 QUALITY ASSURANCE

- A. Applicator Qualifications: Applicator shall have proven experience in the installation of work similar to that required for this project.
- B. Manufacturer Qualifications: The manufacturer shall have manufactured elastomeric coatings for a minimum of 20 years and shall provide reference list of successful applications.
- C. Provide all primers and coatings as manufactured and/or approved in writing by Acrymax Technologies.
- D. *Acrymax Applicators Daily Log* providing project information and describing weather conditions at times of application of system must be kept by project foreman.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Furnish Acrymax Coating system materials and component accessories in manufacturer's original containers clearly indicating the Acrymax label and other identifying information including batch number and manufacturing date.
- B. Store materials in a dry location, protected until installation in accordance with Acrymax instructions.
- C. Protect materials against freezing. Store materials between 40°F and 100°F. Protect from extreme heat. Do not store in direct sunlight.

1.07 PROJECT CONDITIONS

- A. Substrate: Prior to starting coating system installation work, complete all work necessary to provide suitable surface for application of the Acrymax coating system. Substrate shall be smooth, dry, and free of debris.
- B. The material requirements specified herein are for typical conditions. The number of gallons required may need to be increased to account for uneven application, applicator inefficiencies, surface texture, or other conditions. In all events minimum dry film thickness must be achieved.
- C. Install drains or take other corrective action to correct or prevent excess ponding water.

1.08 ENVIRONMENTAL CONDITIONS

- A. It is the responsibility of the applicator to determine if present and forecast weather conditions are acceptable for application of Acrymax coatings.
- B. Do not apply Acrymax coatings when rain, fog, snow, or freezing temperatures are possible within 24 hours or before coating can dry.
- C. Do not apply coatings when the temperature of surfaces to be coated and/or surrounding air temperatures are less than 50°F.
- D. During extremely hot conditions do not apply coatings, or apply coatings in thinner applications to prevent blistering. Additional coats will be required to achieve specified dry film thickness.
- E. Do not apply Acrymax coatings when temperatures are within 5°F of the dew point or when dew point can be reached before the coatings have sufficiently dried or cured. Special consideration must be given during spring and autumn when rapid temperature changes near sunset can occur. Shortened workdays may be required.
- F. Allow wet surfaces to dry thoroughly and to attain temperature and conditions specified before proceeding with or continuing coating operation.
- G. Wind conditions and the potential for overspray must be considered during application of coatings to avoid damage to adjacent surfaces or completed work.

1.09 SAFETY REQUIREMENTS

- A. Users should familiarize themselves with appropriate Material Safety Data Sheets (MSDS). MSDS must be kept and made available at all worksites where materials are being used.
- B. Materials shall be applied in accordance with all applicable local, state, and federal regulations.
- C. A respirator should be used when spraying Acrymax coatings to protect applicators from overspray particles.
- D. When applying reflective white or light color coatings to a roof, sunglasses should be used to protect eyes from glare.
- E. Handle on pails should not be used to hoist pail from ground to roof.
- F. Translucent light panels should be clearly marked and safely protected from foot traffic.
- G. All work shall 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).
- H. If hazardous materials such as lead paint or asbestos are encountered notify appropriate personnel and comply with all applicable local, state, and federal regulations.

1.10 WORK SEQUENCE

- A. Sequence of installation is at the Applicator's discretion providing it does not disrupt operations or activities of the occupants of the building.

1.11 WARRANTY

- A. Warranty shall be 5 year material warranty.
(Consult with Acrymax about specific Acrymax warranty requirements and conditions.)

- B. Furnish applicator warranty with minimum 2 year coverage.

PART 2 - PRODUCTS

2.01 ELASTOMERIC COATING SYSTEM

- A. Manufacturer: Acrymax Technologies Inc. 221 Brooke Street
 1. 221 Brooke Street; Media, PA 19063; Telephone (610) 566-7470,; FAX (610) 891-0834; email info@acrymax.com; website http://www.acrymax.com
- B. Substitutions: Substitutions if allowed must be approved by specifier before submission of bids.

2.02 MATERIALS

- A. Acrymax ARS-3-A20 System shall include but not be limited to:
 1. AF-130BC Basecoat Elastomeric Coating
 2. AF-130 Elastomeric Coating
- B. Acrymax Minimum Material Properties
 1. Elastomeric Coatings - Elastomeric coatings shall be water-dispersed 100% acrylic elastomeric coatings. Materials shall exhibit the following properties:
 a. Liquid Coating Property Requirements

	AF-130BC	AF-130	ASTM
Weight Per Gallon	12.1 +/- .3 lbs	12.1 +/- .3 lbs	D1475
Solids by Weight	66.9 +/- 2.0	66.9 +/- 2.0	D1644
Solids by Volume	50.8 +/- .5	50.8 +/- .5	D2697
Viscosity	95 – 115 kU	95- 110 kU	D562

b. Cured Film Typical Physical Properties

	AF-130BC	AF-130	ASTM
Low Temp. Flexibility	Pass @ -15° F	pass @ -15° F	D522
Elongation at break @74° F	245%	245%	D2370
Elongation at break @0° F	130%	130%	D2370
Tensile strength at break @74° F	240 psi	240 psi	D2370
Tensile strength at break @0° F	660 psi	660 psi	D2370
Permeance	<20 perms	<20 perms	D1653
Accelerated weathering	No effect	No effect	D4798
Fungi Resistance	Zero rating	Zero rating	G21

2.03 APPLICATION EQUIPMENT

- A. Acrymax coatings shall be applied by brush, roller, or spray. Spray application should be done with airless spray equipment. Application by roller or brush may require additional coats, but material requirements will generally remain the same. In all cases, the specified minimum membrane thickness must be achieved.

2.04 RELATED MATERIALS

- A. Primers
 1. Acrymax AF-127 Acrylic Primer
- B. Sealants
 1. Polyurethane
 2. Acrylic

PART 3 - EXECUTION

3.01 MANUFACTURERS INSTRUCTIONS

- A. Compliance: Comply with manufacturer’s product data, technical bulletins, recommendations,

MSDS, and installation instructions.

3.02 EXAMINATION

- A. Examine the substrate. Do not proceed until all unsatisfactory conditions have been corrected and substrate is acceptable. Applicator shall be responsible for providing a proper substrate to receive the Acrymax coating system.
- B. Verify that all roof drains are clear and in working condition.
- C. Verify that all air intake equipment and air conditioning units are closed or protected during application of coatings.

3.03 PREPARATION

- A. Surfaces to be coated must be sound and free of any contaminants that would interfere with proper adhesion of coatings. Powerwashing at minimum 2500 psi is required. Powerbrooming or other suitable methods may also be used as necessary.
- B. Substrate: Prior to starting coating system installation work, complete all repairs necessary to provide a sound substrate. Substrate shall be clean, dry, and free of debris.

3.04 INSTALLATION

- A. **Primer** – If necessary, AF-127 primer shall be used over asphaltic surfaces to promote adhesion to oxidized surfaces. AF-127 Primer shall be used on all granulated surfaces. Roofs that have previously been coated with aluminized coatings shall be primed with AF-127 Primer to prevent “leafing”. Use of primer is not a substitute for proper cleaning of surfaces to receive coatings.
- B. **Basecoat** - Apply basecoat of AF-130BC to entire roof surface. Minimum application rate shall be 1.25 gallons per 100 square feet. Basecoat shall be done in a color that provides contrast to finish coat.
- C. **Finish Coat** - Apply finish coat of AF-130 in specified color to all surfaces previously coated. Minimum application rate is 1.25 gallons per 100 square feet.
- D. *Minimum* dry film thickness of applied coating system shall be 17 mils.
- E. If necessary apply additional AF-130, where required, to insure that specified minimum membrane thickness is achieved. Applicator shall achieve proper membrane thickness according to specification.
- F. Edges of coating application shall be done in an aesthetically acceptable manner.
- G. Coatings must be applied in uniform manner and heavy puddles of coating on roof are not acceptable.

3.05 FIELD QUALITY REQUIREMENTS

- A. At the start of the installation, periodically as work progresses, and upon final completion provide the services of an Acrymax technical representative for inspections and advice as necessary.
- B. Verify final minimum film thickness as specified. If specified dry film thickness has not been achieved, application of additional coating will be required.
- C. Visually inspect critical areas of the roof including roof transitions, seams and penetrations and touch up with additional Acrymax coatings to insure complete and adequate coverage.
- D. Manufacturer reserves the right to perform post installation testing for conformance to specification. Any areas that do not meet the minimum standards for application of the ARS-3-A20 System as specified herein shall be corrected at the applicator’s expense. Manufacturer’s inspection shall not constitute acceptance of responsibility for any improper application of materials.

3.06 PROTECTION & CLEANING

- A. Surfaces not intended to receive the Acrymax system should be protected with temporary protection measures during application of the system. At end of project remove this temporary protection and if it has not been effective then all damaged or soiled surfaces must be cleaned, repaired, or replaced to the satisfaction of architect or building owner.
- B. Remove waste, surplus materials and debris resulting from application of the coating system.

END OF SECTION