

ARS-2-C30XT INSTALLATION GUIDE

PARTIALLY REINFORCED COATING SYSTEM

Concrete Roofs

1. DESCRIPTION

The Acrymax ARS-2-C30XT Elastomeric Roof System is a partially reinforced fluid applied elastomeric roof system for protection, maintenance and weatherproofing of concrete roofs. Roof penetrations, flashings, and other critical areas of the roof are reinforced and then the roof is covered with a high performance elastomeric coating system to provide a weatherproof, monolithic roof covering with superior weatherability and durability. The ARS-2-C30XT system once applied provides the basis for a sustainable and easily maintainable roof system. The long-term cost benefits offered by this state-of-the-art technology include lower life cycle costs and energy savings. Acrymax coatings are VOC compliant waterborne materials that provide an environmentally responsible method for roofing and weatherproofing applications.

Average membrane thickness provided by the ARS-2-C30XT System is 30 mils on the un-reinforced areas and 50 mils on the reinforced areas.

2. MATERIALS

The materials used in the ARS-2-C30XT System may include but not be limited to:

- AF-130BC Basecoat
- AF-130 Finish-coat
- Poly-1 Reinforcement Fabric
- AF-100 Sealer-Primer
- AF-315 Fibrated Acrylic
- AF-136 Patching Compound

3. APPLICATION EQUIPMENT

Acrymax AF-130 roof coatings can be applied by brush, roller, or 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 tip size .027 to .041. Application by roller or brush may require additional coats to achieve uniform membrane thickness, but material requirements will generally remain the same. Rollers should be medium or long nap. (3/4” recommended)

4. INSTALLATION

Installation of the ARS-2-C30XT System is accomplished in six (6) basic steps:

- a. Preparation
- b. Repair
- c. Priming
- d. Installation of reinforcement
- e. Application of coatings
- f. Inspection

(a) Preparation

Acrymax AF-130 coatings must have a clean surface to adhere to. Proper surface preparation is the key to successful applications. All dirt, debris, oils etc. must be removed by the most effective method possible. High-pressure water (2500 psi minimum) is the preferred method. Vacuuming, stiff brooming, and low-pressure water washing can also be used. High-pressure water washing should be done at a pressure suitable to remove embedded dirt and contaminants without damaging the substrate that is being cleaned and care must be taken to make sure that water

does not intrude into the building. Cleaner such as TSP (or biodegradable alternative) should be used as necessary. All residues must be thoroughly rinsed off.

A tape test should be used to determine acceptability of 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.

(b) Repair

All necessary repairs must be done according to good construction practices. Unsound areas including spalled or pitted areas must be repaired and made flush with the surrounding areas. Concrete repairs should be done using concrete that is modified with admixtures containing acrylic resins. Any concrete repairs must be allowed to cure before application of Acrymax coatings. New concrete should generally be allowed to cure for 28 days before coating. *Consult Acrymax.* Acrymax AF-130BC should be used with Poly-1 reinforcement fabric in appropriate widths to repair and reinforce cracks and other defective areas in the existing roof surface. Acrymax AF-136 Patching Compound, AF-315 Fibrated Acryllc, Modified Concrete Patching Materials, or urethane sealant should be used to fill all cracks as necessary.

(c) Priming

Prime concrete surfaces with AF-100 prior to application of Acrymax coating system. Primer application rates may vary depending on the porosity of the concrete. Application rates generally will be 200-250 square feet per gallon. Porous surfaces may require application at rate of 150 – 200 square feet per gallon. Previously painted or coated surfaces usually do not require primer, however any existing coatings left remaining on the roof must be in good condition and well adhered. Adhesion test should be done to verify adequate adhesion of Acrymax coatings to any existing coatings left remaining on roof surface.

(d) Installation of Reinforcement

Before application of roof coating system verify that the surface to be coated is cleaned and prepared properly. At any time during application of the Acrymax system if roof surface becomes contaminated with dirt, dust or other materials that will interfere with adhesion of the coatings then cleaning measures must be taken to restore the surface to a suitable condition.

All flashings, roof penetrations, transitions, and other detail areas requiring reinforcement should be completed with Poly-1 and Acrymax AF-130BC in the following manner:

1. Apply liberal coat of AF-130BC to area to be reinforced.
2. Immediately embed the appropriate width Poly-1 reinforcement fabric into this wet coat of AF-130BC. Apply without wrinkles, air pockets, or fishmouths. Poly-1 Fabric is available in 4", 6", 12", 18", and 40" widths.
3. Apply additional Acrymax AF-130BC to completely saturate fabric. Total AF-130BC used to embed and saturate Poly-1 should be 3 gallons per 100 square feet of reinforced area.

Estimated Acrymax AF-130BC per 100 linear feet required to install Poly-1 Fabric Reinforcement:

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

Note: The estimated material requirements are for coating materials that are required for the tack coat that is used to embed Poly-1 and for the saturating coat that is applied after reinforcement has been installed. Areas that are reinforced must be coated again with each subsequent application of coatings that are part of the roof coating system. Special attention should be given to insure complete and adequate coverage at these critical areas.

(e) Application of Coatings

Apply Acrymax Elastomeric Membrane using the appropriate AF-130 coatings in the color desired. **Contrasting colors should be used for each coat.** White is the suggested finish color for energy efficiency and reduced thermal

stress on the roof. Dust should be blown off of surfaces to be coated with blowers immediately before application of coatings.

1. **Basecoat** - Apply 1st coat of elastomeric coating using Acrymax AF-130BC applied in a uniform manner at the minimum application rate of 1.25 gallons per 100 square feet per coat. Allow to dry.
2. **Intermediate Coat** - Apply 2nd coat of elastomeric coating using Acrymax AF-130 applied in a uniform manner at the minimum application rate of 1.25 gallons per 100 square feet. Allow to dry.
3. **Finish Coat** - Apply 3rd coat of elastomeric coating using Acrymax AF-130XT applied in a uniform manner at the minimum application rate of 1.25 gallons per 100 square feet.

Notes: Each coat should be applied in a perpendicular direction to the previous coat. During application of the coating system special attention should be given to flashings and any other critical areas so as to build required membrane thickness. When applied by roller additional coats may be necessary to achieve uniform film thickness. Total material requirements will stay the same. All specified material must be applied and minimum membrane thickness achieved.

(f) Inspection

Inspect entire roof area and touch-up deficient areas with additional Acrymax AF-130XT as necessary to insure complete and uniform coverage. Special attention should be given to critical areas of roof, ie: details, roof penetrations, etc.

5. LIMITATIONS

These are general guidelines for application of the Acrymax ARS-2-C30XT System. The material requirements may vary depending on the specific job requirements. If unusual conditions exist, contact Acrymax Technical Service at 610-566-7470. Acrymax Fluid Applied Elastomeric roofing systems must be applied to structurally sound substrates. All surfaces must be clean and dry before application of roofing. 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 does not constitute failure of the Acrymax coating or system. Acrymax 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 before coating is dry.

6. WARRANTY

Acrymax offers limited material warranties for the ARS-2-C30XT System when all materials are used in strict accordance with all of Acrymax's written requirements and recommendations and required dry film thicknesses are achieved. Acrymax's sole responsibility under this limited material warranty is for defective material and Acrymax's obligation shall not exceed the purchase price of the Acrymax materials used or part thereof proven to be defective. Submittal of required documentation is required for warranty. Consult Acrymax for details. This warranty gives specific legal rights and you may have other legal rights that vary from state to state. No statement by anyone may supersede this limited material warranty, except when done in writing by Acrymax's Technical Service Office in Media, PA. Specific jobs that meet certain requirements, are pre-approved by Acrymax, and applied by an Acrymax approved applicator may qualify for system warranties covering labor and material. (Consult Acrymax)

INSTALLATION NOTES:

1. Acrymax coatings are waterborne. Consequently 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 2 to 4 hours, but under adverse conditions dry times can range to 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.

2. Coatings should be allowed to dry thoroughly between coats. *Minimum* dry time between coats is 4 hours.
3. 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.
4. 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 cases minimum dry film thickness must be achieved.
5. Surfaces must always be clean before application of AF-130 Coatings. Care must be taken to insure that on-site manufacturing emissions or extended time intervals after original cleaning do not interfere with any stage of the coating applications. If either condition occurs then cleaning may be required again.
6. Adequate coating thickness is essential to performance. If the applicator is unfamiliar in gauging application rates, we suggest that a controllable area be measured and the specified material be applied. In all cases all minimum specified material must be applied and proper minimum dry film thicknesses must be achieved. Care must be taken to insure that all areas completed including all flashings, roof penetrations, etc. are coated sufficiently to insure a watertight seal.
7. Consult ACRYMAX TECHNOLOGIES if any deviations from published specifications are considered. Unapproved deviations from installation guidelines and specified material requirements may seriously affect the coating system performance, and shall be undertaken at the specifier's, applicator's or building owner's own risk.
8. Applicator must comply with all applicable local, state, and federal regulations if lead based paint or other hazardous materials are encountered.
9. Roofing is hazardous work and coatings are very slippery when wet. Comply with fall protection rules and regulations.

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