

# **ARS-2SP**

## **PARTIALLY REINFORCED ELASTOMERIC MEMBRANE SYSTEM for SINGLE-PLY ROOFS**

### **APPLICATION GUIDE**

#### **1. DESCRIPTION**

The Acrymax ARS-2SP Elastomeric Systems are partially reinforced fluid applied elastomeric roof systems for protection, maintenance and weatherproofing of existing single-ply membranes including EPDM, Hypalon, and PVC. In addition to seams, other critical areas of the existing membrane are reinforced with high-strength polyester reinforcement. This combination of Acrymax AF-130 Elastomeric Coatings and Poly-1 Reinforcement provides a weatherproof, monolithic roof covering with superior weatherability and durability. The ARS-2SP Systems once applied provide the basis for sustainable and easily maintainable systems. The long-term cost benefits offered by this state-of-the-art technology include lower life cycle costs and energy savings. Acrymax coatings are waterborne materials that are VOC compliant and exceed all regulatory requirements. They offer an environmentally responsible method for roofing and weatherproofing applications.

The ARS-2SP Systems include the following:

System designation	Membrane thickness (mils) <i>Un-reinforced areas</i>	Membrane thickness (mils) <i>reinforced areas</i>
ARS-2(SP20XT)	20 average, 17 minimum	45 average, 42 minimum
ARS-2(SP30XT)	30 average, 27 minimum	50 average, 47 minimum

#### **2. MATERIALS**

The materials used in the ARS-1SP System may include AF-130BC Basecoat, AF-130XT High-strength Finish-coat, Poly-1 Polyester Reinforcement Fabric and PR-101 Wash-Primer.

#### **3. APPLICATION EQUIPMENT**

Acrymax AF-130 Coatings can be applied by brush, roller, or spray. Airless spray is the most efficient method of application where proper conditions and expertise exist. Suggested spray equipment should be capable of 2500 – 3000 psi with output of 2 - 2.5 gallons per minute. 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.

#### **4. INSTALLATION**

Installation of the ARS-2SP Systems are accomplished in five (5) basic steps: (a) Preparation, (b) Repair, (c) Application of Poly-1 Reinforcement with AF-130BC Basecoat, (d) Application of elastomeric membrane, and (e) Inspection

## ***(a) Preparation***

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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 is the recommended method. Low-pressure water washing with vigorous scrubbing can also be used. EPDM roofs must be washed with PR-101 EPDM Wash-Primer as per product instructions. PR-101 is applied to the roof surface with low pressure spray, allowed to stand for 5-15 minutes, and then powerwashed off. On other single-ply roofs washing with water and a solution of TSP or a biodegradable substitute should be done. Powerwashing should be done at 2000 psi or greater. All residues from any cleaner used must be thoroughly rinsed from the surface. When high-pressure water washing is used it should be done in a manner suitable to remove dirt and contaminants without damaging seams in the existing membrane or the substrate that is being cleaned. Care must also be taken to make sure that water does not intrude into the building or the existing roofing system.

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***

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All necessary repairs must be done according to good construction practices. Acrymax coatings should not be applied over roofing, insulation, or related materials that are saturated with moisture. For applications over existing roof systems a complete inspection must be made, including core cuts and moisture detection scans where necessary, to determine if and where excess moisture exists. Any wet insulation must be replaced with new materials of equal thickness. Acrymax AF-130BC should be used with Poly-1 polyester reinforcement fabric in appropriate widths to repair and reinforce all defective areas in the existing roof surface.

## ***(c) Application of Poly-1 Reinforcement with AF-130BC Basecoat***

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Before application of coatings 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 required materials must be applied and minimum dry film thickness achieved.

### **Seams, flashings, penetrations, transitions, and other detail areas requiring reinforcement**

All seams must be reinforced with Poly-1 and AF-130BC. Additionally all flashings, penetrations, transitions, and other detail areas requiring reinforcement should also be completed with Poly-1 and Acrymax AF-130BC in the following manner:

1. Apply heavy coat of AF-130BC to area to be covered.
2. Embed appropriate width Poly-1 polyester 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 apply Poly-1 Fabric Reinforcement on seams or penetrations:

4" width 1.0 gallons	6" width 1.5 gallons	12" width 3.0 gallons	18" width 4.5 gallons
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**Note:** The estimated material requirements are for materials that are required to apply tack coat used to embed Poly-1 and to provide first saturating coat of Acrymax. During application of liquid

applied elastomeric membrane the seams and detail areas that have been reinforced with Poly-1 must be thoroughly coated with Acrymax coatings to provide a completely watertight seal. Special attention should be given to insure complete and adequate coverage at these critical areas.

#### ***(d) Application of Elastomeric Membrane***

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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 compressed air or blowers before application of coatings.

##### **ARS-2(A20)**

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1. **Basecoat** - Apply 1<sup>st</sup> 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. Allow to dry a minimum of 2 to 4 hours.
2. **Finish Coat** - Apply 2<sup>nd</sup> 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.

##### **ARS-2(A30XT)**

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1. **Basecoat** - Apply 1<sup>st</sup> 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 a minimum of 2 to 4 hours.
2. **Intermediate Coat** - Apply 2<sup>nd</sup> 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. Allow to dry a minimum of 2 to 4 hours.
3. **Finish Coat** - Apply 3<sup>rd</sup> 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 consecutive application of AF-130 coating should be applied in a perpendicular direction to the previous coat. During final application of the Acrymax finish coats special attention should be given to coating flashings and any other critical areas so as to build adequate membrane thickness. When applied by roller it can be difficult to get a uniform finish coating thickness. It can be best when applying by roller to apply additional coats to achieve uniform film thickness. Total material requirements will stay the same. In any event all specified material must be applied and minimum membrane thickness achieved.

#### ***(e) Inspection***

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

## **5. LIMITATIONS**

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These are general guidelines for application of the Acrymax ARS-2SP Systems. 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, it is 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**

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Acrymax offers limited material warranties for the ARS-2SP Systems 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 are applied by an Acrymax approved applicator may qualify for system warranties covering labor and material. (Consult Acrymax)

### **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. 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.
3. 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.
4. Consult ACRYMAX TECHNOLOGIES if any deviations from published specifications are considered. Unapproved deviations from application 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.
5. Applicator must comply with all applicable local, state, and federal regulations if lead based paint or other hazardous materials are encountered.
6. Roofing is hazardous work and coatings are very slippery when wet. Comply with fall protection rules and regulations.

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