Elastomeric Acrylic Coatings

APPLICATION HANDBOOK

MULE-HIDE PRODUCTS

"The name trusted in roofing since 1906"

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Now that you've selected one of the best brands of Elastomeric Acrylic Coatings available today, please take the time to read through this application handbook carefully before beginning. The handbook is broken into sections that provide the basic steps for applying Mule-Hide Elastomeric Acrylic Coatings over various roofing substrates, skylights, and masonry walls.

GENERAL INFORMATION

ABOUT MULE-HIDE

Mule-Hide Elastomeric Acrylic Coatings are an economical alternative to extend the life of an existing roof. Advances in polymer chemistry have resulted in elastomeric coatings that provide lasting restoration, retrofit, or repair. This "liquid applied membrane" completely bonds to the surface as it dries; yet remains "elastomeric". It stretches as the substrate moves and then returns to its original shape without deformation.

Mule-Hide Elastomeric Coatings are lightweight,versatile and easy to repair. Mule-Hide Elastomeric Acrylic coatings are manufactured with strict quality control; you can count on quality that's consistent batch to batch.

Energy Efficient Roofs - Mule-Hide white A-300 Finish has been independently tested to EPA guidelines with results of initial solar reflectance values up to 86% and 3-year aged values up to 75%; plus emissivity values of 91%.

Reflectivity is the percentage of the sun's rays that are turned away from a roof and emissivity is the percentage of heat a roof lets out of a building. Mule-Hide A-300 FINISH can reduce surface temperatures of roofs as well as reducing interior temperature. Mule-Hide is an ENERGY STAR® Partner and your business can reap the rewards of the excellent reflectivity of Mule-Hide Coatings. Mule-Hide Products Co., Inc. manufactures products for professional roofing and coating applicators. Mule-Hide guarantees the quality of these products, and makes recommendations for their use and proper application procedures. Mule-Hide A-300 FINISH meets or exceeds

the standard specification for liquid-applied acrylic coatings used in roofing – ASTM D6083 (California's Title 24 specifications mandate the application of an ASTM D6083 compliant product as the top finish coat). No responsibility, however, is implied or assumed by Mule-Hide for the design, positioning, application or functional interrelation of any building components. This is the responsibility of the architect, engineer, applicator and building owner.

Mule-Hide makes acrylic coatings for applications over the following surfaces:

- Metal Roofs
  - Industrial/Commercial
  - Agricultural
  - Garage/Shed
    - RV
    - Camper
    - Mobile Home/Office
- BUR and Modified Bitumen Roofs
- EPDM and Hypalon Roofs
- New SPF (PUF) Roofs
- Masonry Walls
- Skylights

SAFETY FIRST

Mule-Hide Elastomeric Acrylic Coatings are water based, virtually eliminating concerns about hazardous materials. Even the cleaners (115) and primers (A-125) are non-hazardous, with one exception: Mule-Hide A-151 EPDM ReSurface Agent™ (A-151), which has a high pH (11.0 – 12.0). A-151 as supplied is described as a hazardous product under OSHA hazard communication standards. **WEAR PROTECTIVE CLOTHING, GLOVES, AND CHEMICAL SPLASH GOGGLES when applying A-151**. As with all chemicals, use caution and good industrial hygiene when handling and disposing of empty A-151 containers and ensure proper drainage for A-151 and rinse water run-off from the roof. Thorough rinsing sufficiently dilutes the A-151 so rinse water can be safely discharged onto the ground surface.

Never discharge A-151 (nor the rinse water generated) directly into any open body of water. If in doubt, always contact the local authorities prior to discharging to the soil surface. Refer to the A-151 Product Data Sheet (PDS) and the MSDS for additional information or contact Mule-Hide Technical Department, 1-800-786-1492.

1. Product Data Sheets (PDS) and Material Safety Data Sheets (MSDS) are available from the local distributor or can be downloaded from our website **www.mulehide.com**.
2. Remember, these are professional, commercial grade products. **Always read labels and product information prior to use.**
3. Always make sure any ladders being used are securely tied off and take the time to be aware of the surrounding area when on a roof. When near the edge of a roof, always work facing the edge, not with your back to it. Make sure airless sprayer hoses or cords are positioned to minimize the chance of tripping over them.
4. Never point a power washer or airless sprayer gun in the direction of a person. High pressure nozzles can cause injection wounds if held close to skin.
5. Follow OSHA recommendations. It is the responsibility of the applicator to comply with all local, state, federal building codes/ regulations and OSHA safety regulations.
6. Do not use open flames to accelerate the drying of any products. These products must air dry on their own.
7. Never work alone.
8. Mule-Hide recommends that applicators wear UV-rated sunglasses when applying the finish coating in bright sunshine.

CAUTION!
COATED AREAS BECOME EXTREMELY SLIPPERY WHEN WET.

ALWAYS MAKE SURE ALL WORK ENVIRONMENTS COMPLY WITH OSHA STANDARDS.

MATERIAL STORAGE

1. Keep A-151 away from all ignition sources (i.e., fire, sparks, and flames).
2. Do not store any products in areas where temperatures will fall below 45°F. **ACRYLIC PRODUCTS MUST BE PROTECTED FROM FREEZING AT ALL TIMES.**
3. Always store materials in their original containers as labeled by the manufacturer in a secure area to prevent theft, damage, or vandalism. Follow manufacturer's directions for proper protection of materials prior to and during installation. Any containers missing proper manufacturer's identification are not acceptable. All materials

at jobsite must have proper MSDS Sheets available at the site.
4. Read all container labels for additional information. Keep all containers tightly closed when not in use.
5. Dispose of materials and their containers in accordance with local, state, and federal government regulations.

GENERAL PRECAUTIONS

1. **Make sure all steps are followed for each product** as published in this handbook, including power washing with 115 CLEANER where stated.
2. Care should be taken when pressure washing so as not to cause damage or entrap moisture in the existing roof system.
3. All substrates to receive coatings must be clean, dry, and free of dirt, oil, loose granules and any substance such as loose asphalt that will adversely affect adhesion or performance of the elastomeric acrylic coatings. A spud bar works well to pry substances off, especially early in the day when the asphalt, etc. is colder. **Do not apply any acrylic coatings over damp or wet surfaces.**
4. **Do not apply Mule-Hide Acrylic Coatings over gravel surfaced or coal-tar-pitch roofs. Spudded surfaces are also not acceptable.**
5. **Do not apply Mule-Hide Acrylic Coatings over existing roof insulation or roofing membranes where moisture is trapped within the material. Coating over wet components will adversely affect the adhesion of the Mule-Hide Acrylic Coatings.**
6. **Do not apply Mule-Hide Acrylic Coatings over asphalt or asphalt products that have not aged for a minimum of 90 days. Coating over uncured asphalt products will cause staining and blistering of the Mule-Hide Acrylic Coatings.**
7. Ensure that the air space below the roofing system is properly ventilated. Poorly ventilated air spaces greatly increase the probability of condensation on the bottom of a metal roof panel or roof deck. In addition, fill any gaps in the insulation below the metal roof panels. Condensation occurs when warm moist air hits a cold surface. Properly ventilating the space below the roof and ensuring that the insulation has no gaps helps to equalize the attic temperature and outdoor temperature.
8. Be careful when repairing and/or replacing fasteners on metal roofs. Make sure there are no wires, conduit, or piping that may be penetrated when working with fasteners.

9. Masking or covering to prevent over-spray or accidental coating is required to provide protection of skylights, HVAC units etc., and other areas not scheduled for coating. The applicator is responsible for any product spills, spray drift, or over spray. Consider rolling or brushing a 15 foot perimeter and then spray applying the remainder to reduce the chance of overspray on adjacent surfaces.
10. If a roof has skylights or transits, use reduced pressure and a wide fan spray when cleaning with a power washer as most fiberglass panels and other non-load bearing roof components do not have the strength to withstand high pressure cleaning.
11. **Do not dilute any of the products.** Keep the lids on when not actively in use. Make sure all products are stored in their original containers in a cool (but not where cold temperatures could drop below 45°F), dry area. **Do not let the coating products freeze.**
12. Do not apply the Mule-Hide Acrylic Coatings on roof surfaces that do not provide positive drainage.

GETTING STARTED

General Tools & Equipment Needed:
Following is a list of power and/or hand tools and equipment that are typically needed to apply Mule-Hide Elastomeric Coatings:

1. Protective eyewear and gloves
2. Ladders and safety equipment (warning flags/lines, tie-offs, etc.)
3. Pressure washer & hoses
4. Stiff bristle broom and scrub brush (wire brush for metal roofs)
5. Ratchet or screw gun with sockets to remove and replace fasteners on metal roofs
6. Airless sprayer – 3000 psi minimum, 2 gallons per minute minimum material output recommended
7. Hoses & spray tip kits for sprayer
8. Open-end wrenches to tighten guns & hoses
9. 3″ short bristle paint brushes to apply A-200 FLASHING GRADE
10. Thick-napped paint covers, roller frames, and handles
11. Jiffy mixer or heavy duty drill and paddle to mix coatings prior to application
12. Electrical extension cords
13. Generator (optional)
14. Clean rags
15. Wet Mil Gauge

RECOMMENDED AIRLESS SPRAY EQUIPMENT GUIDE

The following recommendations are the minimum requirements for each product. It is important to make sure all equipment and hoses are properly cleaned and stored after each use.

A-125 METAL ROOF PRIMER

PUMP: Airless Spray Rig with a minimum material output of .75 gal at 3000 psi.

HOSES: Maximum of 300′ of high-pressure material hose. Hose ID's are available ½″ to ¼″. Whip hose length should be one (1) ID size smaller than rest of hose length.

SPRAY GUN: Airless Spray Gun. Gun must be equipped with swivel for handling ease. Gun must also be equipped with a Reverse-A-Clean nozzle.

SPRAY TIPS: Recommended orifice size is a .015″ - .027″ diameter wide-angle fan pattern. Ideal orifice size will vary with temperature. Always have spray tips at project site within the recommended orifice size range. Always use wet film gauge to determine if the proper mil thickness has been applied.

A-300 FINISH, A-300-FF FINISH, A-320 FINISH, A-301 SKYLIGHT FINISH

PUMP: Airless Spray Rig with a minimum material output of 2 gal per minute at 3000 psi.

HOSES: Maximum of 300′ of high-pressure material hose. Hose ID's are available ½″ to ¼″. Whip hose length should be one (1) ID size smaller than rest of hose length.

SPRAY GUN: Airless Spray Gun. Gun must be equipped with swivel for handling ease. Gun must also be equipped with a Reverse-A-Clean nozzle.

SPRAY TIPS: .025″ - .035″ orifice size is recommended, with a wide-angle fan pattern. Ideal orifice size will vary with the weather conditions. Always have spray tips at project site within the recommended orifice size range. Always use wet film gauge to determine the proper mil thickness has been applied.

A-400-W MASONRY WALL COATING

PUMP: Airless Spray Rig with a minimum material output of 1 gal per minute at 3000 psi.

HOSES: Maximum of 300′ of high-pressure material hose. Hose ID's are available ½″ to ¼″. Whip hose length should be (1) ID size smaller than rest of hose length.

SPRAY GUN: Airless Spray Gun. Gun must be equipped with swivel for handling ease. Gun must also be equipped with a Reverse-A-Clean nozzle.

SPRAY TIPS: .025″ - .035″ orifice size is recommended, with a wide-angle fan pattern. Ideal orifice size will vary with the weather conditions. Always have spray tips at project site within the recommended orifice size range. Always use wet film gauge to determine the proper mil thickness has been applied.

IMPORTANT TIPS

1. Remember to check with the local building inspector for any required permits or general requirements necessary to be in compliance with current local building codes.
2. Refer to NRCA guidelines for tools and materials necessary to repair an existing roof prior to application of the coatings.
3. In all cases, the existing roofing system must be in sound condition. Mule-Hide is NOT responsible for any defects in the existing roofing system. Mule-Hide requires proper surface preparation of the existing roofing system. Mule-Hide recommends repairs be made to correct any defects found in the existing roof system, in accordance with the published NRCA Repair Manual for Low-Slope Roofing Systems guidelines, prior to application of Mule-Hide Elastomeric Coatings.
4. When applying coatings over an existing roof under warranty, the building owner should check with the existing roofing system manufacturer, as this coating application may void the warranty.
5. Mule-Hide recommends *ADHESION TESTS prior to bidding the project* to ensure adhesion and compatibility between the coating and the substrate.
6. **Clean equipment while coating is still wet.** Mule-Hide 115 CLEANER is recommended. Thoroughly rinse all hoses and spray equipment at end of the day. Make sure all materials, debris, containers, etc. are removed from work area and properly disposed.

WARRANTY PROGRAM

Types of Warranties Available

5 yr Limited Material
10 yr Limited Material
5 yr System Warranty (Metal Roof Coating Systems only)
10 yr System Warranty (Metal Roof Coating Systems only)

The Warranties available are dependent on the existing roof surface covered, the products used, and the quantity of the coatings applied.

5-YEAR & 10-YEAR LIMITED MATERIAL WARRANTY

To qualify, application of Mule-Hide Elastomeric Acrylic Coatings must meet the guidelines as published in this handbook. No fee or inspection is required and the applicator is not required to be a Mule-Hide Warranty Eligible Applicator.

5 &10-YEAR METAL ROOF COATING SYSTEM WARRANTY (Labor and Material)

Available to a commercial building owner when a Mule-Hide Warranty Eligible Applicator applies Mule-Hide Elastomeric Acrylic Coatings in compliance with the Mule-Hide guidelines published in this handbook. Labor and material warranties are only available for coating metal roofs with positive drainage.

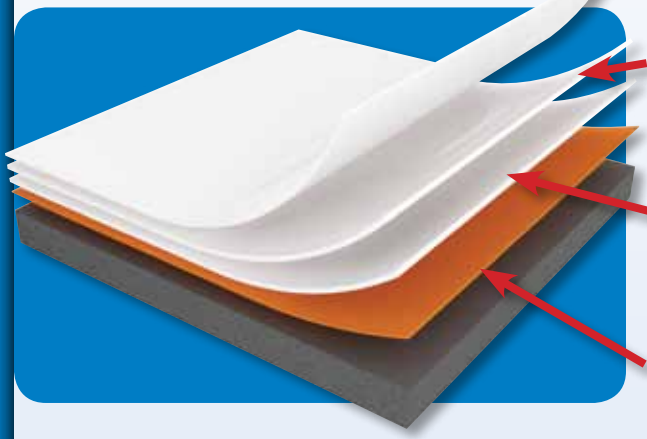
1. Substrate preparation and material application must be in accordance with Mule-Hide application guidelines.
2. Warranty Eligible Applicators must complete and submit a warranty application prior to the start of the project. Mule-Hide strongly recommends submitting the warranty application prior to bidding to provide an opportunity to review the products and determine their suitability for the intended application.
3. All Mule-Hide labeled products must be used as per Mule-Hide guidelines.
4. Upon completion of the project, the applicator must contact Mule-Hide to schedule an inspection of the roof system.
5. Upon confirmation of the completion of any punchlists generated during the inspection and payment of the warranty fee, a labor and material warranty can be issued.

To become a Warranty Eligible Applicator, contact your Mule-Hide Territory Manager For Warranty Applications, contact Mule-Hide Warranty Department, 1-800-786-1492 or your local Mule-Hide Representative. To locate a Representative or to submit an online warranty application, visit **www.mulehide.com**.

WARRANTY COVERAGE APPLICATION RATE GUIDELINES

The following information is provided for each type of substrate approved by Mule-Hide to receive Acrylic Coatings. The following coverage rates are required to receive the stated warranty.

METAL ROOF



A-320
Top Coat in Periodic Ponded Areas

A-300
2-Coats for 10yr Warranties

A-300
1-Coat for 5yr Warranty

A-125
Primer required on all Ferrous metal roofs

5-YEAR LIMITED MATERIAL WARRANTY
No Fee.

Required Product	Coverage Rates (minimums)
115 CLEANER	¼ gal. / 100 sf
A-125 PRIMER*	½ gal. / 100 sf
A-200 FLASHING GRADE	1 gal. / 100 lf of seams (3″ wide X 60 wet mils)
	1 gal. / 300-400 fasteners
A-300 FINISH	2 gal. / 100 sf (1 coat)
A-320 TOP COAT**	1 gal. / 100 sf in ponded areas

**Required on all ferrous metal substrates.*

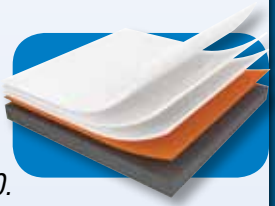
***A-320 is to be applied in areas of light ponding (not exceeding 48 hours). A-320 is to be installed as a top coat over A-300. A-320 should extend several feet in all directions beyond ponded area. Ponding areas exceeding 48 hours should be corrected prior to coating the roof. Please refer to Item 3 in the General Application Guidelines in this manual.*

10-YEAR LIMITED MATERIAL WARRANTY

No Fee.

Required Product	**Coverage Rates (minimums)**
115 CLEANER	¼ gal. / 100 sf
A-125 PRIMER*	½ gal. / 100 sf
A-200 FLASHING GRADE	1 gal. / 100 lf of seams (3″ wide X 60 wet mils) 1 gal. / 300-400 fasteners
A-300 FINISH	1-½ gal. / 100 sf per coat (2 coat min.)
Total Finish Coat	**3 gal. / 100 sf**
A-320 TOP COAT**	1-½ gal. / 100 sf in ponded areas

** Required on all ferrous metal substrates.*



*** A-320 is to be applied in areas of light ponding (not exceeding 48 hours). A-320 is to be installed as a top coat over the last coat of A-300. A-320 is not be used as a substitute for the second coat of A-300. A-320 should extend several feet in all directions beyond ponded area. Ponding areas exceeding 48 hours should be corrected prior to coating the roof. Please refer to Item 3 in the General Application Guidelines in this manual.*

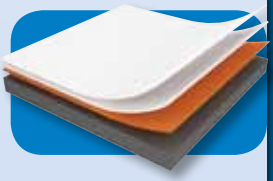
5-YEAR METAL ROOF COATING SYSTEM WARRANTY (Labor and Material)

Fee=4 cents per sf with $300.00 minimum.

Note: Must be applied by a Mule-Hide Warranty-Eligible Applicator

Required Product	**Coverage Rates (minimums)**
115 CLEANER	¼ gal. / 100 sf
A-125 PRIMER	½ gal. / 100 sf
A-200 FLASHING GRADE	1 gal. / 100 lf of seams (3″ wide X 60 wet mils) 1 gal. / 300-400 fasteners
A-300 FINISH	2 gal. / 100 sf (1 coat)
A-320 TOP COAT**	1 gal. / 100 sf in ponded areas

** Required on all ferrous metal substrates.*



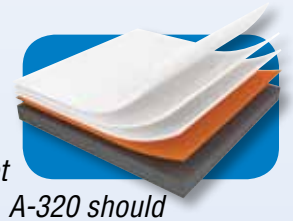
*** A-320 is to be applied in areas of light ponding (not exceeding 48 hours). A-320 is to be installed as a top coat over A-300. A-320 should extend several feet in all directions*

beyond ponded area. Ponding areas exceeding 48 hours should be corrected prior to coating the roof. Please refer to Item 3 in the General Application Guidelines in this manual.

10-YEAR METAL ROOF COATING SYSTEM WARRANTY
(Labor and Material)
Fee=7 cents per sf with $500.00 minimum.

Required Product	**Coverage Rates (minimums)**
115 CLEANER	¼ gal. / 100 sf
A-125 PRIMER*	½ gal. / 100 sf
A-200 FLASHING GRADE	1 gal. / 100 lf of seams (3″ wide X 60 wet mils) 1 gal. / 300-400 fasteners
A-300 FINISH	1-½ gal. / 100 sf per coat (2 coat min.)
Total Finish Coat	**3 gal. / 100 sf**
A-320 TOP COAT**	1-½ gal. / 100 sf in ponded areas

** Required on all ferrous metal substrates.*



*** A-320 is to be applied in areas of light ponding (not exceeding 48 hours). A-320 is to be installed as a top coat over the last coat of A-300. A-320 is not be used as a substitute for the second coat of A-300. A-320 should extend several feet in all directions beyond ponded area. Ponding areas exceeding 48 hours should be corrected prior to coating the roof. Please refer to Item 3 in the General Application Guidelines in this manual.*

BUR ROOF

A-320
2-Coats for
10yr Material
Warranty

A-320
1-Coat for
5yr Material
Warranty

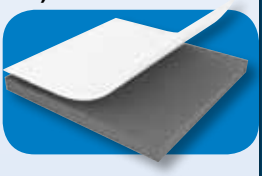
NEW SMOOTH BUR ROOF

(5 yrs or less, min 90-day cure req'd)

5-YEAR LIMITED MATERIAL WARRANTY

No Fee.

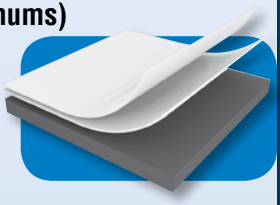
Required Product	Coverage Rates (minimums)
A-200 FLASHING GRADE	1 gal. / 12-½ sf (splits, cracks, etc.)
A-320 FINISH	2 gal. / 100 sf (1 coat)



10-YEAR LIMITED MATERIAL WARRANTY

No Fee.

Required Product	Coverage Rates (minimums)
A-200 FLASHING GRADE	1 gal. / 12-½ sf (splits, cracks, etc.)
A-320 FINISH	1-½ gal. / 100 sf per coat (2 coat min.)
Total Finish Coat	**3 gal. / 100 sf**



SMOOTH MOD BIT ROOF

5-YEAR LIMITED MATERIAL WARRANTY

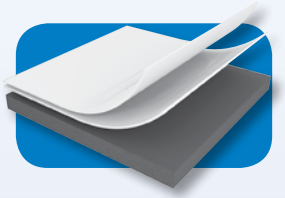
No Fee.

Required Product	Coverage Rates (minimums)
A-200 FLASHING GRADE	1 gal. / 12-½ sf (splits, cracks, etc.)
A-320 FINISH	2 gal. / 100 sf (1 coat)

10-YEAR LIMITED MATERIAL WARRANTY

No Fee.

Required Product	Coverage Rates (minimums)
A-200 FLASHING GRADE	1 gal. / 12-½ sf (splits, cracks, etc.)
A-320 FINISH	1-½ gal. / 100 sf per coat (2 coat min.)
Total Finish Coat	**3 gal. / 100 sf**



GRANULATED MOD BIT ROOF OR MINERAL SURFACE CAP SHEETS

5-YEAR LIMITED MATERIAL WARRANTY

No Fee.

Required Product	Coverage Rates (minimums)
A-200 FLASHING GRADE	1 gal. / 12-½ sf (splits, cracks, etc.)
A-320 FINISH	2 gal. / 100 sf (1 coat)

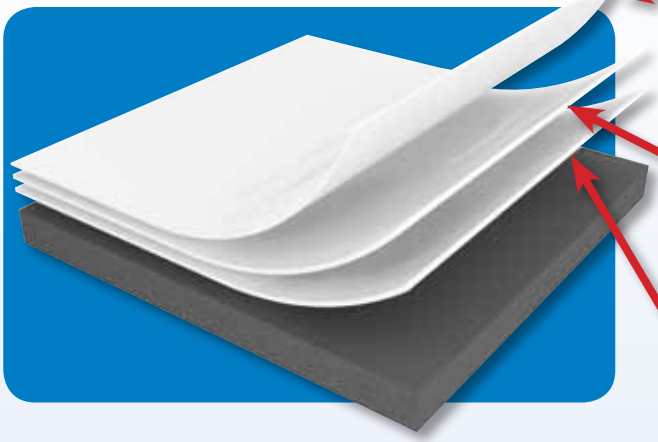
10-YEAR LIMITED MATERIAL WARRANTY

No Fee.

Required Product	Coverage Rates (minimums)
A-200 FLASHING GRADE	1 gal. / 12-½ sf (splits, cracks, etc.)
A-320 FINISH	2 gal. / 100 sf per coat (2 coat min.)
Total Finish Coat	**4 gal. / 100 sf**

AGED SMOOTH BUR ROOFS

(over 5 yrs old)



A-320
Top Coat in Periodic Ponded Areas

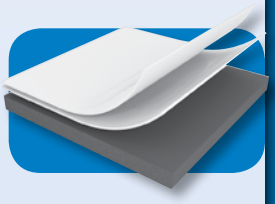
A-300
2-Coats for 10yr Material Warranty

A-300
1-Coat for 5yr Material Warranty

5-YEAR LIMITED MATERIAL WARRANTY

No Fee.

Required Product	**Coverage Rates (minimums)**
A-200 FLASHING GRADE	1 gal. / 12-½ sf (splits, cracks, etc.)
A-300 FINISH	2 gal. / 100 sf (1 coat)
A-320 TOP COAT**	1 gal. / 100 sf in ponded areas



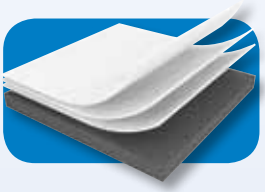
***A-320 is to be applied in areas of light ponding (not exceeding 48 hours). A-320 is to be installed as a top coat over A-300. A-320 should extend several feet in all directions beyond ponded area. Ponding areas exceeding 48 hours should be corrected prior to coating the roof. Please refer to Item 3 in the General Application Guidelines in this manual.*

AGED SMOOTH BUR ROOFS –CONT.

10 YEAR LIMITED MATERIAL WARRANTY

No Fee.

Required Product	**Coverage Rates (minimums)**
A-200 FLASHING GRADE	1 gal. / 12-½ sf (splits, cracks, etc.)
A-300 FINISH	1-½ gal. / 100 sf per coat (2 coat min.)
Total Finish Coat	**3 gal. / 100 sf**
A-320 TOP COAT**	1-½ gal. / 100 sf in ponded areas



*** A-320 is to be applied in areas of light ponding (not exceeding 48 hours). A-320 is to be installed as a top coat over the last coat of A-300. A-320 is not be used as a substitute for the second coat of A-300. A-320 should extend several feet in all directions beyond ponded area. Ponding areas exceeding 48 hours should be corrected prior to coating the roof. Please refer to Item 3 in the General Application Guidelines in this manual.*

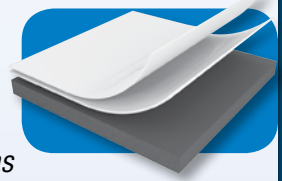
EPDM RESTORATION SYSTEM™

5-YEAR LIMITED MATERIAL WARRANTY*

No Fee.

Required Product	Coverage Rates (minimums)
A-151 ReSurface Agent™	500 sf / gal.
A-300 FINISH	2 gal. / 100 sf (1 coat)
A-320 TOP COAT**	1 gal. / 100 sf in ponded areas

** Warranty is not available if A-151 ReSurface Agent™ is not used.*



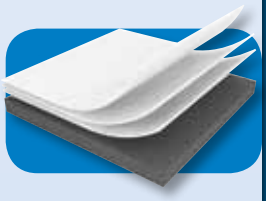
***A-320 is to be applied in areas of light ponding (not exceeding 48 hours). A-320 is to be installed as a top coat over A-300. A-320 should extend several feet in all directions beyond ponded area. Ponding areas exceeding 48 hours should be corrected prior to coating the roof. Please refer to Item 3 in the General Application Guidelines in this manual.*

10-YEAR LIMITED MATERIAL WARRANTY*

No Fee.

Required Product	Coverage Rates (minimums)
A-151 ReSurface Agent™	500 sf / gal.
A-300 FINISH	1-½ gal. / 100 sf per coat (2 coat min.)
Total Finish Coat	**3 gal. / 100 sf**
A-320 TOP COAT**	1-½ gal. / 100 sf in ponded areas

** Warranty is not available if A-151 ReSurface Agent™ is not used.*



***A-320 is to be applied in areas of light ponding (not exceeding 48 hours). A-320 is to be installed as a top coat over the last coat of A-300. A-320 is not be used as a substitute for the second coat of A-300. A-320 should extend several feet in all directions beyond ponded area. Ponding areas exceeding 48 hours should be corrected prior to coating the roof. Please refer to Item 3 in the General Application Guidelines in this manual.*

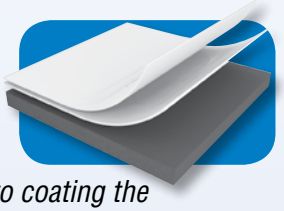
AGED HYPALON ROOF

(over 5 yrs old)

5-YEAR LIMITED MATERIAL WARRANTY

No Fee.

Required Product	Coverage Rates (minimums)
115 CLEANER	¼ gal. / 100 sf
A-200 FLASHING GRADE	1 gal. / 12-½ sf (splits, cracks, etc.)
A-300 FINISH	2 gal. / 100 sf (1 coat)
A-320 TOP COAT**	1 gal. / 100 sf in ponded areas

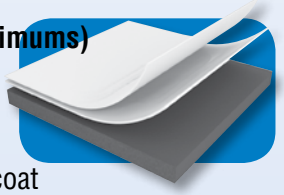


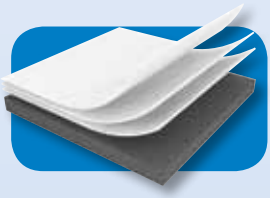
***A-320 is to be applied in areas of light ponding (not exceeding 48 hours). A-320 is to be installed as a top coat over A-300. A-320 should extend several feet in all directions beyond ponded area. Ponding areas exceeding 48 hours should be corrected prior to coating the roof. Please refer to Item 3 in the General Application Guidelines in this manual.*

10-YEAR LIMITED MATERIAL WARRANTY

No Fee.

Required Product	Coverage Rates (minimums)
115 CLEANER	¼ gal. / 100 sf
A-200 FLASHING GRADE	1 gal. / 12-½ sf (splits, cracks, etc.)
A-300 FINISH	1-½ gal. / 100 sf per coat (2 coat min.)
Total Finish Coat	**3 gal. / 100 sf**
A-320 TOP COAT**	1-½ gal. / 100 sf in ponded areas





***A-320 is to be applied in areas of light ponding (not exceeding 48 hours). A-320 is to be installed as a top coat over the last coat of A-300. A-320 is not be used as a substitute for the second coat of A-300. A-320 should extend several feet in all directions beyond ponded area. Ponding areas exceeding 48 hours should be corrected prior to coating the roof. Please refer to Item 3 in the General Application Guidelines in this manual.*

NEW SPF (PUF) TOP COAT

5-YEAR LIMITED MATERIAL WARRANTY

No Fee.

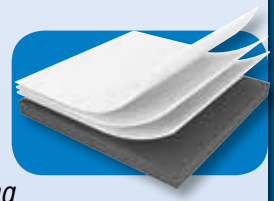
Required Product	Coverage Rates (minimums)
115 CLEANER	¼ gal. / 100 sf
A-200 FLASHING GRADE	1 gal. / 12-½ sf (splits, cracks, etc.)
A-300 FINISH	2 gal. / 100 sf (1 coat)
A-320 TOP COAT**	1 gal. / 100 sf in ponded areas

***A-320 is to be applied in areas of light ponding (not exceeding 48 hours). A-320 is to be installed as a top coat over A-300. A-320 should extend several feet in all directions beyond ponded area. Ponding areas exceeding 48 hours should be corrected prior to coating the roof. Please refer to Item 3 in the General Application Guidelines in this manual.*

10-YEAR LIMITED MATERIAL WARRANTY

No Fee.

Required Product	Coverage Rates (minimums)
A-200 FLASHING GRADE	1 gal. / 12-½ sf (splits, cracks, etc.)
A-300 FINISH	1-½ gal. / 100 sf per coat (2 coat min.)
Total Finish Coat	**3 gal. / 100 sf**
A-320 TOP COAT**	1-½ gal. / 100 sf in ponded areas



***A-320 is to be applied in areas of light ponding (not exceeding 48 hours). A-320 is to be installed as a top coat over the last coat of A-300. A-320 is not be used as a substitute for the second coat of A-300. A-320 should extend several feet in all directions beyond ponded area. Ponding areas exceeding 48 hours should be corrected prior to coating the roof. Please refer to Item 3 in the General Application Guidelines in this manual.*

MASONRY WALLS

5-YEAR LIMITED MATERIAL WARRANTY

No Fee.

Required Product	Coverage Rates (minimums)
115 CLEANER	¼ gal. / 100 sf
A-200 FLASHING GRADE	1 gal. / 100 lf of cracks*
A-400 MASONRY WALL COATING	1 to 2 gal. / 100 sf (1st coat)
	1 gal. / 100 sf (2nd coat)
Total Finish Coat	**2 to 3 gal. / 100 sf minimum**

** For cracks larger than 1/16″ up to a 1/8″ wide. Cracks larger than 1/8″ are to be repaired in accordance with published Masonry Institute of America guidelines prior to application of Mule-Hide Acrylic Coatings.*

SKYLIGHTS

5-YEAR LIMITED MATERIAL WARRANTY

No Fee.

Required Product	Coverage Rates (minimums)
115 CLEANER	¼ gal. / 100 sf (or clean with water)
A-200 FLASHING GRADE	1 gal. / 100 lf of seams (3″ wide X 60 wet mils)
A-301 FINISH	2 gal. / 100 sf (1 coat)

Any questions regarding these applications, please call Mule-Hide Technical Department 1-800-786-1492.

MULE-HIDE WARRANTY PROGRAM DISCLAIMER

Mule-Hide Products Co. Inc. warrants that its products are of professional grade and free of any and all manufacturing defects, and that they will meet all stated physical properties as outlined in this handbook and Product Data Sheets. Mule-Hide does not warrant the existing roof system or structural deck or other components not supplied by Mule-Hide. Any damages to the coatings system caused by ponding or by the existing roofing system, including but not limited to delamination, blistering, bleed-thru, deck deterioration or related failures are outside the scope of the Mule-Hide Warranty. Contact Mule-Hide Technical Department for additional information.

ESTIMATING GUIDELINES

1. Identify roof type to be coated, then review recommended product application guidelines and related Product Data Sheets.
2. Determine square footage of all areas to receive coating. To ensure accurate values, it is always best to physically measure the roof areas to be coated rather than trusting the building owner to provide the correct square footage. Refer to the coverage rates listed in the Warranty Selection Chart and calculate quantities of each required product.
3. If any rooftop monitors, HVAC equipment and ductwork are to be coated (optional), these items must be considered as maintenance items only – they are not part of any warranted roof coating system.
4. For HVAC penetrations, ridge vents, etc., estimate A-200 FLASHING GRADE at 50 to 75 linear ft per gal.
5. For Metal Roof Coating Systems:
   - Always add 20% to the total roof area to compensate for panel profile.
   - Examine the roof for areas of heavy rusting and determine the areas. Additional coats of primer may be required in heavily rusted areas.
   - Determine number of fasteners requiring actual replacement.
   - Field fastener coverage – estimate approximately 1 gal. of A-200 per 300-400 fastener heads.
   - Seams & End Lap Joints – estimate A-200 at 100 linear ft. per gal.
6. Contact Mule-Hide Technical Department for information relating to any additional system requirements prior to the start of the project.
7. Include warranty fees (when applicable).
8. Include appropriate tax & freight charges.
9. Application labor can only be determined by the coating applicator. Direct labor costs will vary according to:
   - Access to work area, product handling at work area
   - Condition of existing roof
   - Application technique (brush, roller or spray)
   - Spray equipment capacity (gallons per minute)
   - Screening, masking requirements
   - Packaging (5 gal. pails, 55 gal. drums, or 275 gal. totes)
   - Weather conditions
   - Crew size and experience

INSPECTING THE ROOF

Inspecting the existing roof is critical to ensure watertight integrity after application of the coating system. During the inspection, look for deficiencies and damage that need to be repaired or replaced before installing Mule-Hide's Elastomeric Acrylic Coatings. The following are some common deficiencies to look for on various roofing systems:

METAL ROOFING SYSTEMS

- Loose and missing fasteners
- Peeling and chalking of previous coatings
- Poorly attached vents
- Open seams and side laps
- Loose or cracked perimeter edge flashing
- Broken or improperly flashed soil pipes
- Ponding water stains - areas of dirt/debris accumulation
- Excessive rusting and holes in the metal
- Sufficient slope/deflected panels
- Suggested references
  - Manual for Inspection and Maintenance of Steep-slope Architectural Metal Panel Roof Assemblies: A Guide for Building Owners
  - Manual for Inspection and Maintenance of Low-slope Structural Metal Panel Roof Assemblies: A Guide for Building Owners

BUR / MODIFIED BITUMEN ROOFING SYSTEMS

- Blisters, ridges, and splits
- Erosion of exposed felts
- Open seams (fish mouths) and end laps
- Cracked and wrinkled flashings
- Peeling/heavily oxidized aluminized coating
- Ponding water stains - areas of dirt/debris accumulation
- Sufficient slope
- Suggested references
  - Repair Manual for Low-slope Membrane Roof Systems
  - Manual for Inspection and Maintenance of Built-up and Modified Bitumen Roof Systems: A Guide for Building Owners

SINGLE PLY ROOFING SYSTEMS

- Open seams (voids)
- Poorly adhered field and flashing membrane
- Cracked uncured flashings
- Open flashing terminations
- Missing perimeter attachment
- Ponding water stains - areas of dirt/debris accumulation
- Sufficient slope
- Suggested references
  - Repair Manual for Low-slope Membrane Roof Systems
  - SPRI/NRCA Manual of Roof Inspection, Maintenance and Emergency Repair for Existing Single-ply Roof Systems

1. Create an Inspection Summary Sheet for recording inspection findings and general details:
   - Measure and note the dimensions.
   - Note type of materials on existing roof – metal, BUR, MOD BIT, EPDM, Hypalon, Aluminum Coatings, etc.
   - Note age of roof and age of any existing materials used for repairs, etc.
   - Describe roof design – low-slope, metal panels, valleys, parapets, adjoining roofs, etc.
   - Determine and note surface conditions and leak areas including the cause and severity.
   - Determine size and materials needed to replace any wet damaged areas or materials needed for repairs.
   - Survey building owner to identify conditions that occur prior to leaks such as driving rain, high winds versus continual leakage.
   - Note newer penetrations or additions such as skylights, vents, etc.
   - Mule-Hide strongly recommends taking photos of the roof and any interior damage to the structure for documentation prior to the start of work.
   - Check all parapet walls and copings for possible water entry
   - Check walls that the roof abuts for general condition and possible water entry
   - Check for adequate slope and positive drainage. Mule-Hide strongly recommends using a 4′ level set on the roof surface to determine slope. Building code requires ¼″ per foot slope on new buildings
   - Look for signs of ponding water and other indicators of insufficient slope and drainage

2. Create a Checklist to ensure a thorough evaluation:

General Conditions

- ❑ Blisters
- ❑ Buckling
- ❑ Corrosion
- ❑ Cracking
- ❑ Alligatoring
- ❑ Debris
- ❑ Discoloration
- ❑ Fastener Seals
- ❑ Fasteners to be replaced
- ❑ Old Coatings – Condition
- ❑ Open joints
- ❑ Open seams
- ❑ Physical damage
- ❑ Ponding water – location, size, depth
- ❑ Punctures
- ❑ Soft Areas
- ❑ Fasteners – loose
- ❑ Moss or other vegetation

Flashings

- ❑ Corrosion
- ❑ Sagging
- ❑ Cracked Sealant
- ❑ Damaged Edges
- ❑ Supports Deformed Metal
- ❑ Coping/Flashings
- ❑ Damaged Gravel Stop
- ❑ Loose/Missing Fasteners
- ❑ Loose or Missing Metal Sections
- ❑ Missing Covers
- ❑ Open End Joints

Parapets, Sidewalls

- ❑ Cracked Sealant
- ❑ Crickets
- ❑ Damaged Material
- ❑ Grouting
- ❑ Loose/Missing Metal
- ❑ Loose or Missing Caps
- ❑ Vertical Laps
- ❑ Wrinkles

Drains

- ❑ Debris Free
- ❑ Down Spouts
- ❑ Flashings
- ❑ Gutters
- ❑ Strainers/Clamping Rings

Penetrations

- ❑ Access Panels
- ❑ Chimneys
- ❑ Conduit/Pipes
- ❑ Draw Bands
- ❑ Firewalls
- ❑ Guy Wires
- ❑ HVAC
- ❑ Side Walls, Parapets
- ❑ Skylights
- ❑ Supports
- ❑ Vents/Breathers

Adhesion Test

Yes / No

- ❑ Pass
- ❑ Fail

Slope / Drainage

Slope ___" per foot

- ❑ Positive Drainage
- ❑ Ponding <48 hours
- ❑ Ponding >48hours

Roof Type

- ❑ Bare Metal
- ❑ Aluminum
- ❑ Galvanized
- ❑ Galvalume
- ❑ Painted/Coated Steel
- ❑ Copper
- ❑ Lead Coated Copper
- ❑ New Smooth BUR-less than 5 yrs (# days cured___)
- ❑ Smooth Mod Bit (age___)
- ❑ Smooth Mod Bit (age___)
- ❑ Granulated Mod Bit Cap Sheet (age___)
- ❑ Mineral Surface BUR Cap Sheet (age___)
- ❑ Aged Smooth BUR-over 5 yrs (age___)
- ❑ EPDM
- ❑ Aged Hypalon-over 5 yrs (age___)
- ❑ New SPF/PUF (# days cured ___)
- ❑ Masonry Wall (age___)
- ❑ Skylights (age___)

If metal is painted/coated or if other roof type has existing coatings – if possible, determine the type of paint/coating.

Note: Mule-Hide Acrylic Coatings will NOT adhere to silicone coatings.

Note: Adhesion testing is recommended for all surfaces.

ADHESION TEST INSTRUCTIONS

Prior to bidding a project, Mule-Hide strongly recommends testing for adhesion to existing roof surfaces if the finish/coating is not known. Some metal finishes such as Kynar-500® and some coatings such as silicone are surfaces to which the acrylic products do not adhere well. When the surface material is not known, Mule-Hide recommends performing an adhesion test to determine if the acrylic products can adhere sufficiently to the cleaned existing surface. The product having direct contact should be the product used in the adhesion test. For example: If the surface is a painted metal and the primer is to be applied first, then the primer should be the product used to perform the adhesion test. If the intent is to just recoat the surface with one of the Mule-Hide FINISH coatings (A-300, A-320, A-301, A-400) then that coating should be used for the adhesion test. The rule of thumb is "when in doubt, perform an adhesion test."

Note: Some new metal roof surfaces could have protective oil on the surface and may require an aggressive cleaner.

1. Clean a small area of the roof surface the same way that the complete roof will be cleaned.
2. Apply one coat of the coating product in an area approximately 2 wide by 5 long. If your system requires A-125 – test with A-125, otherwise test with A-300, A-320, or A-400.
3. Immediately embed a one (1) inch wide by six (6) inch long strip of cloth fabric into the new coating.
4. Allow about two (2) inches of the fabric to protrude out of the coating on one end.
5. After positioning the fabric, apply a second coat to seal over the fabric, but leave the protruding 2 uncoated.
6. Allow the coating to cure for at least 72 hrs for basic adhesion test before attempting to remove the fabric.
7. Peel the fabric straight up and observe the coating.
   - If the coating peels off the roof surface with little to no effort, it is doubtful that the coating will adhere properly.
   - If there is difficulty in lifting the fabric, or the fabric separates from the new coating (leaving the new coating bonded to the existing coating), the odds are in favor of the new coating adhering sufficiently to the existing surface.
   - If coating over an existing aluminized coating and the coating peels off of the surface with little to no effort but there is aluminized coating on the back of the sample, the coating adheres well but the

substrate is in poor condition.
- Note: When in doubt as to the outcome of an adhesion test, contact Mule-Hide Technical Department to review test results.

8. Mule-Hide recommends performing an adhesion test on all surfaces prior to bidding

PERCENT SOLIDS - WET FILM-DRY FILM CHART

WET FILM (thickness) using "Mule-Hide Wet Film Gauge" will translate into APPROXIMATE DRY FILM (thickness) as shown below.

GALLONS PER 100 SQURE FEET	WET FILM MILS	% VOLUME SOLIDS (Approximate)	APPROXIMATE DRY FILM MILS
1	16	100	16.0
		90	14.4
		80	12.8
		70	11.2
		60	9.8
A-300 & A-320		50	8.0
		40	6.4
A-125		30	4.8
		20	3.2
2	32	100	32.0
		90	28.8
		80	25.6
		70	22.4
		60	19.2
A-300 & A-320		50	16.0
		40	12.8
		30	9.6
		20	6.4
3	48	100	48.0
		90	43.2
		80	38.4
		70	33.6
		60	28.8
A-300 & A-320		50	24.0
		40	19.2
		30	14.4
		20	9.6
4	64	100	64.0
		90	57.6
		80	51.2
		70	44.8
		60	38.4
A-300 & A-320		50	32.0
		40	25.6
		30	19.2
		20	12.8

CHECKING MIL THICKNESS

Mule-Hide offers a Wet Film Gauge that is easy to use and gauges applied coating thickness from 1 to 80 mils.

1. Pick one of the four sides of the gauge (selecting the side with the desired mil thickness) and place it vertically on the roof into the wet coating.
2. Lift up the gauge and look at the bottom notches. The notch showing wet coating that is also located just before the notch without wet coating will be the correct wet film thickness reading.
3. If all the notches have wet coating, wipe off the gauge and turn the gauge to the next higher mil side.
4. When finished, thoroughly wipe off the gauge, then store for your next wet film reading.

The "Percent Solids-Wet Mil-Dry Mil Chart" found on Page 35 is used to verify application rates either during installation using the Mule-Hide Wet Film Gauge or after installation using a Dry Film Thickness Gauge. To ensure proper application rates follow these instructions:

During Application – using Wet Film Gauge

1. Review application specifications to determine required application rate per coat (gallons per 100 square feet)
2. Refer to far left column in "Percent Solids* – Wet Mil – Dry Mil Chart" and find specified application rate.
3. After locating the specified application rate, read corresponding "Wet Film Mils" in next column to right. For ½ gallon increments take next lowest whole gallon value and multiply by 1.5. Example: Specification rate is 1-1/2 gallons per 100 square feet. Wet Film Mil thickness for 1 gallon per 100 square feet is 16 Wet Mils. 16 x 1.5 = 24. 24 Wet Mils are needed for 1-1/2 gallons per 100 square feet.
4. To maintain proper application rates, wet film thicknesses must be at or above those values shown in column 2.

** Percent Solids is based on the "Solids by Volume", which can be found in the physical properties charts in the PRODUCT INFORMATION section*

Note: On non-magnetic surfaces, the only non-destructive way to check coverage rates is by using the Wet Film Gauge during application of each coat.

After Application – using Dry Film Gauge

1. Review application specifications to determine required application rate for all coats including primers and finish coats (gallons per 100 square feet).
2. Refer to far left column in "Percent Solids – Wet Mil – Dry Mil Chart" and find specified application rate for each coat. If two finish coats are required, add coverage rates of each coat together.
3. Refer to Product Data Sheet and Physical Properties Chart to determine Percent Solids by Volume (3rd line down in Physical Properties Chart)
4. Find Percent Solids by Volume value in Column 3 of the Physical Properties Chart and then read to the right for the approximate dry mil thickness needed to meet specified coverage rates. Extrapolation can be used to determine Dry Film thickness when Percent Solids by Volume values are between listed values.
5. Add dry film thicknesses for primer and finish coats together to get total dry film thickness needed to meet specified application rates.
6. Use Dry Film Gauge to measure thicknesses of coating system. Take multiple readings throughout the roof to create an average value.
7. To prevent "false" values, do not take readings in areas where A-200 has been applied.

Note: Dry Film Thickness Gauges only work on magnetic surfaces.

COVERAGE RATES DISCLAIMER

Published coverage rates are based upon applying the products on clean, smooth, non-porous surfaces. Actual coverage rates may vary due to substrate conditions (deck profiles or surface texture), spillage, overspray, unused material left in opened containers and even the type of roller or brush used. To minimize this potential problem, an area should be laid out and coated at the recommended coverage rate using the intended equipment and checked when cured for actual dry film thickness (DFT).

Product Description, Basic Uses, Typical Physical Properties, and Cured Film Properties

CLEANERS AND PRIMERS

115 CLEANER

Product Description

Mule-Hide 115 CLEANER is a ready-to-use, environmentally friendly cleaner that is excellent at removing dirt, oil, and grease from metal roof decks. 115 CLEANER is available in 5 gallon pails or 55 gallon drums.

Uses

Mule-Hide 115 CLEANER is used as a general purpose cleaner prior to the coating of metal roof decks with Mule-Hide Acrylic Coatings Systems. Power washing with Mule-Hide 115 CLEANER effectively removes existing oil, dirt, or grease that would adversely affect the bonding of acrylic coatings

A-125 METAL ROOF PRIMER

Product Description

A-125 METAL ROOF PRIMER is a modified acrylic, high solids, zinc-rich primer that totally encapsulates existing rust and inhibits the development of new rust. A-125 provides excellent adhesion for subsequent coats on metal roofs. A-125 METAL ROOF PRIMER is available in 5 gallon pails or 55 gallon drums.

Uses

Primary use of this product is as a primer in the waterproofing and rust proofing of metal roof panels. Mule-Hide A-125 is designed to provide excellent adhesion to problem metal surfaces while it encapsulates rust.

TYPICAL PHYSICAL PROPERTIES

Weight Solids / Gallon	9.9 +/- 0.2 lbs.
(% by weight)	46.5 +/- 3
(% by volume)	35.1 +/- 3
Viscosity cps	3190 +/-1000
KU	105 +/- 5
pH	8.5-9.3
Service Temperature Range	- 45° F to 200° F
Application Temperature Range	40° F to 100° F

A-125 METAL ROOF PRIMER – CONT.

APPROXIMATE DRYING TIME (75° F @ 50% rel. hum.)
6 hours to recoat

CURED FILM PROPERTIES

Property	Test Method/Conditions	Result
Hardness, Shore A	ASTM D2240	70 +/- 5
Weathering Resistance	Atlas Weatherometer/ 5000 hrs.	No effect

A-151 RESURFACE AGENT™

Product Description

Mule-Hide A-151 EPDM ReSurface Agent™ is a ready-to-use, surface preparation agent that is excellent at removing dirt, oil, and grease from EPDM roof decks. A-151 promotes a "lock and key mechanism" which dramatically improves the adhesion of Mule-Hide A-300 FINISH to EPDM (old or new). A-151 RESURFACE AGENT™ is available in 5 gallon containers.

Uses

A-151 is designed to prepare the surface of EPDM prior to the application of Mule-Hide A-300 FINISH.

Caution

Mule-Hide A-151 EPDM ReSurface Agent™ has a high pH. A-151 as supplied is described as a hazardous product under OSHA hazard communication standards. **WEAR PROTECTIVE CLOTHING, GLOVES, AND CHEMICAL SPLASH GOGGLES when applying A-151.** As with all chemicals, use caution and good industrial hygiene when handling and disposing of empty A-151 containers and ensure proper drainage for A-151 and rinse water run-off from the roof. Thorough rinsing sufficiently dilutes the A-151 so rinse water can be safely discharged onto the ground surface. **Never discharge A-151 (nor the rinse water generated) directly into any open body of water.** If in doubt, always contact the local authorities prior to discharging to the soil surface. Refer to the A-151 Product Data Sheet (PDS) and the MSDS for additional information or contact Mule-Hide Technical Department, 1-800-786-1492.

A-200 FLASHING GRADE SEALANT

Product Description

A-200 FLASHING GRADE sealant is a highly flexible acrylic based elastomeric flashing grade sealant. A-200 exhibits exceptional thixotropic properties and will retain its superior flexibility over a broad range of temperature extremes. Primary use of this product is in the waterproofing and sealing of fasteners, seams, penetrations and end lap joints on metal roofs. Mule-Hide does not require the use of fabric to waterproof and seal fasteners, seams, penetrations and end lap joints on metal roofs. Mule-Hide A-200 is a brushable or extrudable material. A-200 FLASHING GRADE is available in 1 gallon and 5 gallon pails.

Uses

A-200 material is used for sealing around fasteners, panel seams, penetrations, and end lap joints. The thixotropic properties of A-200 make it an ideal product to build up an elastomeric seal, filling voids in the substrate. In combination with Mule-Hide's acrylic primers and finish coats, A-200 economically provides a quality, watertight roof system.

TYPICAL PHYSICAL PROPERTIES

Weight Solids / Gallon	11.5 +/- 1 lb.
(% by weight)	70.0 +/- 3
(% by volume)	51.0 +/- 3
Viscosity cps	40,000 +/- 5000
pH	>8.0
Service Temperature Range	-45° F to 200° F
Application Temperature Range	40° F to 100° F

APPROXIMATE DRYING TIME (75° F @ 50% rel. hum.)
24 hours to recoat

CURED FILM PROPERTIES

Property	Test Method/Conditions	Result
Tensile Strength	ASTM D412	215 +/- 25 psi
Elongation	ASTM D412	500% +/- 50%
Hardness, Shore A	ASTM D2240	55 +/- 5
Low Temp. Flexibility	ASTMD412 - 0.5" mandrel	PASS
Weathering Resistance	Atlas Weatherometer/ 5000 hrs	No effect
Water Permeability	ASTM E96-80	0.003 +/- 0.001

A-300 FINISH

Product Description

A-300 FINISH is an acrylic based elastomeric coating. It exhibits exceptional exterior durability and UV stability, superior flexibility in low temperature environments and high reflectivity. The primary use of this product is for waterproofing and finish coating of metal roofs. This product may also be used as a maintenance coating to coat other surfaces, such as, aged (over 5 years) smooth BUR, aged Hypalon and EPDM. A-300 FINISH is available in 1 and 5 gallon pails, 55 gallon drums and 275 gallon totes. A-300 is available in special order colors (minimum quantities required). Contact Mule-Hide for current color selection and availability. However, white is recommended for maximum UV protection and energy savings. A-300 FINISH meets or exceeds ASTM 6083. This product is CRRC and Energy Star rated.

Uses

A-300 may be easily applied to various substrates including metal roofs. In combination with the appropriate Mule Hide primer and flashing grade sealant, A-300 economically provides a quality watertight installation over an existing metal roof.

TYPICAL PHYSICAL PROPERTIES

Weight Solids / Gallon	11.9 +/- 0.2 lb.
(% by weight)	71.0 +/- 3
(% by volume)	54.3 +/- 3
Viscosity cps	16,000 +/- 1500
pH	>9.0
Service Temperature Range	-45° F to 200° F
Application Temperature Range	40° F to 100° F

APPROXIMATE DRYING TIME (75° F @ 50% rel. hum.)
12 hours to recoat

CURED FILM PROPERTIES

Property	Test Method/Conditions	Result
Tensile Strength	ASTM D412	270 +/- 25 psi
Elongation	ASTM D412	234% +/- 50%
Hardness, Shore A	ASTM D2240	55 +/- 5
Low Temp. Flexibility	ASTMD412 - 0.5″ mandrel	PASS
Weathering Resistance	Atlas Weatherometer/ 5000 hrs	No effect
Water Permeability	ASTM E96-80	0.003 +/- 0.001

A-300-FF FAST FILM FINISH

Product Description

A-300-FF FAST FILM FINISH is an acrylic based elastomeric coating designed to increase resistance to moisture after as little as twenty (20) minutes drying time, even in low temperatures, high humidity, and/or overcast conditions. It exhibits exceptional exterior durability and UV stability, superior flexibility in low temperature environments and high reflectivity. A-300-FF is available in 5 gallon pails, 55 gallon drums and 275 gallon totes.

Uses

A-300-FF is designed to be easily applied by spray, roller or brush application. The primary use of this product is in the waterproofing and finish coating of metal roofs when sudden, unexpected light rains are a possibility. In combination with the appropriate Mule-Hide metal roof primer and flashing grade sealant, A-300-FF economically provides a quality watertight roof system.

TYPICAL PHYSICAL PROPERTIES

Weight Solids / Gallon	11.9 +/- 0.2 lbs.
(% by weight)	66.9 +/- 3
(% by volume)	50.9 +/- 3
Viscosity cps	14000 +/-1500
KU	101 +/- 6
pH	>10.2
Service Temperature Range	- 15° F to 200° F
Application Temperature Range	40° F to 100° F

APPROXIMATE DRYING TIME (75° F @ <90% rel. hum.)
2 to 4 hours to recoat

CURED FILM PROPERTIES

Property	Test Method/Conditions	Result
Tensile Strength	ASTM D412	322 +/- 25 psi
Elongation	ASTM D412	144% +/- 50%
Hardness, Shore A	ASTM D2240	55 +/- 5
Low Temp. Flexibility	ASTMD412 - 0.5” mandrel	PASS
Weathering Resistance	Atlas Weatherometer/ 5000 hrs	No effect
Water Permeability	ASTM E96-80	0.003 +/- 0.001

A-301 SKYLIGHT FINISH

Product Description

A-301 SKYLIGHT FINISH is a 100% acrylic based elastomeric coating. It exhibits exceptional exterior durability, UV stability and superior flexibility in low temperature environments. A-301 dries to a translucent flexible film. A-301 SKYLIGHT FINISH is available in 1 gallon and 5 gallon pails.

Uses

A-301 is designed for sealing and protecting skylight panels or glass transit windows. A-301 economically provides a quality watertight seal that allows light to pass.

TYPICAL PHYSICAL PROPERTIES

Weight Solids / Gallon	9.0 +/- 0.2 lbs.
(% by weight)	41.0 +/- 1
(% by volume)	36.0 +/- 1
Viscosity cps	3400 +/-1000
pH	>8.0
Service Temperature Range	-45° F to 200° F
Application Temperature Range	40° F to 100° F

APPROXIMATE DRYING TIME (75° F @ 50% rel. hum.)
24 hours to recoat

CURED FILM PROPERTIES

Property	Test Method/Conditions	Result
Tensile Strength	ASTM D412	275 +/- 25 psi
Elongation	ASTM D412	138% +/- 50%
Hardness, Shore A	ASTM D2240	55 +/- 5
Low Temp. Flexibility	ASTMD412 - 0.5″ mandrel	PASS
Weathering Resistance	Atlas Weatherometer/ 5000 hrs	No effect
Water Permeability	ASTM E96-80	0.003 +/- 0.001

A-320 FINISH

For coating over asphaltic substrates and in areas of light, periodic ponded water (ponding not to exceed 48 hours)

Product Description

A-320 FINISH ("A-320") is a white, non-yellowing acrylic based elastomeric coating. It exhibits exceptional exterior durability and UV stability, superior flexibility in low temperature environments, and high reflectivity. A-320 FINISH will maintain its white appearance when applied over any mod bit or fresh asphaltic substrates (New smooth BUR or Granulated Cap Sheets less than 5 years old) and areas that periodically pond water (not to exceed 48 hours). A-320 FINISH is formulated to improve resistance to damage caused by periodic ponding. However, A-320 FINISH is not intended as a "cure all" for ponded water situations and prolonged exposure to moisture in ponded areas may be detrimental to A-320 FINISH. Areas where ponded water remains for more than 48 hours may require the installation of new drains to provide proper drainage or tapered insulation and new, compatible roofing materials to create positive drainage to the existing drain system. NRCA guidelines for ponding water state, "If the ponding condition cannot be eliminated, perform more frequent inspections to monitor and maintain the membrane surface affected by the ponding condition. Implement permanent solutions at the time of reroofing."

A-320 FINISH is available in 1 and 5 gallon pails, 55 gallon drums, and 275 gallon totes.

Uses

A-320 FINISH is designed to impart a white, weatherproof seal over a variety of surfaces, such as:

- Asphaltic roof surfaces
  - New Smooth BUR (less than 5 years old)
  - Modified Bitumen
  - Granulated Cap Sheets
- Acrylic Coatings - Used as a topcoat
- Metal Substrates - Used as a topcoat

Use A-320 FINISH in areas where the existing fresh asphalt or aged asphalt based roof system would discolor and stain a conventional white acrylic coating.

A-320 FINISH is also used in areas that require a durable elastomeric coating but have minor ponding water - a condition that excludes coating with conventional acrylics. A-320 FINISH may be applied over the top coat of A-300 FINISH in areas where light periodic ponding may occur. It is recommended that the A-320 FINISH be applied several feet in all directions beyond the extent of the ponded area. **NOTE: All ponding must evaporate within 48 hours to maintain the material warranty.**

A-320 FINISH- CONT.

TYPICAL PHYSICAL PROPERTIES

Weight Solids / Gallon	11.7 +/- 0.4 lbs.
(% by weight)	63.2 +/- 3
(% by volume)	51.0 +/- 3
Viscosity cps	16000 +/-1500
KU	125 +/- 6
pH	>9.0
Service Temperature Range	- 45° F to 200° F
Application Temperature Range	40° F to 100° F

APPROXIMATE DRYING TIME (75° F @ 50% rel. hum.)
12 hours to recoat

CURED FILM PROPERTIES

Property	Test Method/Conditions	Result
Tensile Strength	ASTM D412	125 +/- 25 psi
Elongation	ASTM D412	208% +/- 50%
Hardness, Shore A	ASTM D2240	50 +/- 5
Low Temp. Flexibility	ASTMD412 - 0.5″ mandrel	PASS
Weathering Resistance	Atlas Weatherometer/ 5000 hrs	No effect

A-400-W MASONRY WALL COATING

Product Description

A-400-W MASONRY WALL COATING is a tough, elastic, acrylic coating for exterior masonry surfaces. A-400-W has an exceptional balance of elongation and tensile strength that permits it to "bridge" minor cracks up to 1/16″ that form in the substrate before and after the coating has been applied. A-400-W will not wrinkle or split when temperature changes cause cracks to expand and contract up to 1/16″. The formulation is based on chemistry that imparts excellent dirt resistance despite the soft, flexible nature of the film. A-400-W MASONRY WALL COATING is available in 5 gallon pails, 55 gallon drums, and 275 gallon totes.

Uses

A-400-W is designed to provide a flexible, protective waterproofing membrane over various substrates including concrete, stucco, block, and other exterior masonry walls. Cracks up to 1/8″ wide may be addressed with A-200 FLASHING GRADE SEALANT. Cracks larger than 1/8″ are to be repaired in accordance with published Masonry Institute of America guidelines prior to application of Mule-Hide Elastomeric Coatings.

TYPICAL PHYSICAL PROPERTIES

Weight Solids / Gallon	12.3 +/- 0.3 lbs.
(% by weight)	69.0 +/- 3
(% by volume)	53.0 +/- 3
Viscosity cps	16000 +/-1500
KU	100 +/- 6
pH	>8.5
Service Temperature Range	- 45° F to 200° F
Application Temperature Range	40° F to 100° F

APPROXIMATE DRYING TIME (75° F @ 50% rel. hum.)
12 hours to recoat
5-7 days – full cure

CURED FILM PROPERTIES

Property	Test Method/Conditions	Result
Tensile Strength	ASTM D412	290 +/- 25 psi
Elongation	ASTM D412	234% +/- 50%
Hardness, Shore A	ASTM D2240	60 +/- 5
Low Temp. Flexibility	ASTMD412 - 0.5″ mandrel	PASS
Weathering Resistance	Atlas Weatherometer/ 5000 hrs	No effect
Water Permeability	ASTM E96-80	0.003 +/- 0.001

LIQUI-THIX® (TURNS A-300 OR A-400-W INTO FLASHING GRADE)

Product Description

Liqui-Thix® is a unique blend of acrylic copolymers designed to convert standard A-300 FINISH or A-400-W MASONRY WALL COATING into a thick, flashing /caulking grade sealant. Because Liqui-Thix® is an acrylic emulsion as opposed to a fibrated or powdered thickener, the resultant flashing grade product has excellent physical properties and a smooth, buttery consistency. Liqui-Thix® can be used on the job site to permanently transform A-300 or A-400-W into a flashing grade sealant in seconds. Liqui-Thix® is available in 32 ounce wide mouth plastic jugs.

Instructions

Shake well before using. One 32-ounce bottle of Liqui-Thix® will convert one five-gallon pail of Mule-Hide A-300 or A-400-W into a thick, flashing grade sealant. Thoroughly mix* one five gallon pail of A-300 Finish or A-400-W Masonry Wall Coating. While mixing the A-300 or A-400-W, pour in one standard container of Liqui-Thix®. Continue mixing for approximately one minute or until the thickened product has consistency throughout.

** A 400 rpm 1/2" electric drill with a rectangular plaster paddle is required.*

TYPICAL PHYSICAL PROPERTIES

Weight Solids / Gallon	8.6 +/- 0.2 lbs.
(% by weight)	16.0 +/- 0.5
(% by volume)	53.0 +/- 3
Viscosity cps	16000 +/-1500
KU	100 +/- 6
pH	3.7 +/- 0.3
Application Temperature Range	40° F to 100° F

SEAL-FAST® FABRIC TAPE

Product Description

Seal-Fast® Fabric Tape is a non-butyl synthetic rubber and resin adhesive tape, which remains flexible in cold temperatures. The fabric facer is designed to be coated to match the surrounding roofing surface. Seal-Fast® Fabric Tape must be coated.

Uses

Seal-Fast® Fabric Tape may be used on metal roofs to strip in side laps, end laps, and other penetrations prior to the application of the Mule-Hide Elastomeric Acrylic Coating System. It will adhere to wood, glass, plastics, concrete and metals. This product may be used to repair gutter seams, chimney flashings, and metal roofs on mobile homes and transport vehicles. Seal-Fast® Fabric Tape makes a long lasting watertight seal. Seal-Fast® Fabric Tape must be coated to match the surrounding roofing surface.

TYPICAL PHYSICAL PROPERTIES

Solids	100%
Elongation	100%
Chemical Resistance	Excellent to water, water vapors, ozone, and mild alcohol
Shrinkage	None

FAST-CAPS®

Product Description

Polymer modified asphalt disc with aluminum facer used to quickly and effectively seal fasteners on metal roof panels. FAST-CAPS® are available in packages of 500 and come with securing tool to form discs around fasteners.

Uses / Instructions

FAST CAPS® seal fasteners on metal roofs quickly. Instant watertight seal prevents leaks, rust, and fastener movement. These aluminum-faced conforming disks consist of a heavy modified asphalt base, reinforced with high-density polymer films for tear strength. First power wash with 115 CLEANER, repair holes, damaged areas, and remove old caulk. Replace / tighten missing or loose fasteners as needed. Peel release paper and center FAST-CAP® over problem fastener. Complete application by centering securing tool, and push/twist to create a tight seal.

FAST-CAPS® – CONT.

TYPICAL PHYSICAL PROPERTIES

Elongation	296%
Peel Strength	15 lbs per inch on stainless steel plate
Low Temperature Flexibility	-10° F 100,000 cycles with no signs of cracking or other failure
Tensile Strength	446 psi (with 80% elongation)
Thickness	45 mils total adhesive, foil, & reinforcing
Tear Strength	680 gr. MD 640 gr. CD ASTM D-1424

Mule-Hide Product Disclaimer:
The statements provided concerning the materials shown are intended as a guide for material usage and were believed to be true and accurate at the time of printing. No statement made by anyone may supersede this information, except when done in writing by Mule-Hide Products Co., Inc. Since the manner of use is beyond our control, Mule-Hide does not make nor does it authorize anyone to make any warranty of merchantability or fitness for any purpose or any warranty, guarantee or representation, expressed or implied, concerning this material except that it conforms to Mule-Hide physical properties. Buyer and user accept the product under these conditions and assume the risk of any failure, any injury of person or property (including that of the user), loss or liability resulting from the handling, storage or use of the product whether or not it is handled, stored or used in accordance with the directions or specifications. Mule-Hide must be notified in writing of any claims and be given the opportunity to inspect the complaint or failure before repairs are made.

GENERAL APPLICATION GUIDELINES

1. Application may be by brush, roller, or airless sprayer:
    a. Brush – suitable for small areas and flashings. Use a synthetic bristle paintbrush.
    b. Roller – suitable for smaller areas. Use a medium to long nap roller cover.
    c. Airless Spray Equipment – Refer to Recommended Airless Spray Equipment Guide (pages 12-13) in this handbook
2. The existing roof system must be in sound condition.
3. Long-term performance of any roofing system may be affected by periodic ponded water. Periodic ponded water is a condition where water remains on the roof for no more than 48 hours after a rain. Ponded water areas should be corrected to provide positive drainage prior to applying Mule-Hide coatings.
    a. Areas where periodic ponded water occurs (Not exceeding 48 hours) may be addressed by applying **A-320 FINISH**. A-320 FINISH is formulated to improve resistance to damage caused by periodic ponding. However, A-320 FINISH is not intended as a "cure all" for ponded water situations and prolonged exposure to moisture in ponded areas may be detrimental to A-320 FINISH.
    b. Areas where ponded water remains for more than 48 hours may require the installation of new drains to provide proper drainage or tapered insulation and new, compatible roofing materials to create positive drainage to the existing drain system. NRCA guidelines for ponding water state, "If the ponding condition cannot be eliminated, perform more frequent inspections to monitor and maintain the membrane surface affected by the ponding condition. Implement permanent solutions at the time of reroofing."
    c. **MULE-HIDE WARRANTIES WILL NOT BE VALID IF PONDING WATER REMAINING LONGER THAN 48 HOURS EXISTS ON THE ROOF.**

Questions regarding ponding conditions should be directed to Mule-Hide Technical Department, 1-800-786-1492.

4. Mule-Hide strongly recommends adhesion tests to be conducted on any unknown surfaces where adhesion may be questionable. It is the responsibility of the applicator to perform any adhesion tests prior to bidding the project. Refer to Adhesion and Compatibility Test Instructions in this handbook.
5. **Check weather conditions prior to start of work.** Mule-Hide Acrylic Coatings require complete evaporation of water to cure. Cool temperatures and high humidity retard cure. Do not apply if weather conditions will not permit complete cure before rain, dew or freezing temperatures. If dew point limits application window, mops or leaf blowers can be used to dry roof prior to coating. Do not spray in windy conditions without taking appropriate precautions to eliminate overspray.
6. **Temperature of surfaces to be coated should be above 45°F and below 110°F.** Do not apply coating if there is a chance temperature may drop below 45 degrees within 48 hours after application. **For applications in higher temperatures (above 90° F)**, Mule-Hide recommends application in multiple, thin coats to prevent rapid skinning and trapped moisture problems.
7. **Do not spray coatings when winds are 15 mph or faster.** Windbreaks, additional masking, and clearing of adjacent areas to protect from overspray are strongly recommended if the contractor elects to spray coatings when the winds are fastener than 15 mph.
8. **Mule-Hide recommends a minimum of 12 hours cure time between coats** or the product should be sufficiently dry that foot traffic will not damage the coating. Multiple coats should always be applied within 72 hours of each coat to minimize or prevent contamination that would require additional cleaning.
9. Anticipate **longer cure time when working in weather below 50 degrees F** since cleaners and coatings will not dry as quickly as in warmer temperatures with the sun shining.
10. **Inspect applied product after each application step** to ensure proper application techniques and compliance with coverage rate minimums.
11. All surfaces (roof, parapet, monitor and equipment) to be coated must be thoroughly cleaned with a pressure washer.

SURFACE PREPARATION – GENERAL

1. Surface preparation of the various existing surfaces such as, metal roof panels, asphalt based roof membranes, single-ply membranes and other coatings, before application is one of the key elements to having a successful coatings installation. If the roof coating does

not bond properly to the prepared surface, the coating may not perform as expected.

2. Pressure washing is typically recommended as a method to clean existing roof surfaces. It is the contractor's responsibility to ensure that no damage is caused to the existing roof surface when pressure washing. Utilizing too high a pressure could cause irreparable damage to seams, joints, flashings and membranes. Water could be forced into the roof system requiring wet areas to be completely removed. Surface preparation may require scrubbing with a stiff bristle brush and a good cleaning detergent.
3. The existing roofing system must be in a sound, watertight condition with good positive drainage. Areas exhibiting ponding and poor drainage must be corrected prior to applying the acrylic coatings.
4. Coating over existing aluminum coating requires the application of either Mule-Hide #301 Fibrated Emulsion Roof Coating or Mule-Hide #311 Non-Fibrated Emulsion Roof Coating. Power wash the existing roof surface to remove all loose and flaking aluminized coating. High pressure power washing may not be adequate to remove all loose and flaking aluminized coating. It may be necessary to brush the coating with a stiff bristle broom to remove any remaining loose and flaking coating. After brushing, power wash again. After the roof has thoroughly dried, apply the emulsion roof coating in one coat at a rate of 1-3 gallons per 100 square feet, depending on the roughness of the substrate. Allow the emulsion to dry a minimum of 48 hours before applying the acrylic coating. The emulsion must be thoroughly dry and firm enough to take foot traffic without damage prior to being coated. Drying time will be longer, 3 to 7 days, in cool and/or damp weather. Test for dryness in slowest drying areas by rubbing surface with a wet finger. Emulsion is dry if no staining occurs on your finger and the emulsion does not distort under pressure.

Elastomeric Acrylic Coatings System Application Disclaimer:
When applying a Mule-Hide Metal Roof Coating Systems or EPDM Restoration System™, the primary products specified are to be supplied by Mule-Hide. All products not supplied by Mule-Hide, which are to be used in conjunction with these Mule-Hide systems, must be approved in writing by Mule-Hide prior to installation. Products not supplied by Mule-Hide will not be covered under a Mule-Hide warranty.

For a FREE Application Video
Call 1-800-786-1492
or view online at www.mulehide.com

METAL ROOF COATING SYSTEM

Products Needed: 115, A-125, A-200, A-300, use A-320 in areas periodic ponding

Step 1. Surface Preparation

Mule-Hide 115 CLEANER is used as a general purpose cleaner prior to coating metal roofs with Mule-Hide Elastomeric Acrylic Coatings. All loose existing coatings, heavy rust, debris, and fresh roof cement must first be removed. It may be necessary to add a fungicide to remove heavy accumulations of fungi and algae. Notify building owner to be prepared for the possibility of some water entering the building during the power washing process. Avoid spraying directly into seams or open penetrations.

- Power wash at minimum 2000 psi with full strength 115 CLEANER at a rate of 0.25 gallons per 100 sq. ft.
- Rinse roof thoroughly with water.

This effectively removes existing oil, dirt, or grease that would adversely affect the bonding of acrylic coatings. Excessively soiled / greasy surfaces and rust or scale may require additional cleaning or scrubbing with a wire brush.

Repair existing roof system in accordance with either the published NRCA Manual for Inspection and Maintenance of Steep-slope Architectural Metal Panel Roof Assemblies or the Manual for Inspection and Maintenance of Low-slope Structural Metal Panel Roof Assemblies. Replace missing or loose fasteners and metal panels as needed. To prevent re-oxidation of rusty areas, be sure to apply A-125 Metal Primer within 2 weeks of power washing roof.

Repair Tips

- Stripped, loose or missing fasteners should be replaced with the next larger diameter fastener size (see Step 2 for priming directions when replacing fasteners). Check all fasteners to ensure they are tight.
- Add additional fasteners to tighten laps where gaps exist. Gaps should not exceed ¼ inch in width.
- Unsound rust should be scraped, wire brushed or sand blasted to remove all loose rust
- Panels that are rusted to the point where their structural integrity may be compromised should be replaced with new panels to match the existing.
- Damaged panels should be replaced. New metal must be clean and oil free. Bare or rusted metal must be primed with A-125 Metal Primer.
- Remove all asphaltic-based patching and flashing materials. Do not apply solvents to remove asphaltic-based materials. Remove asphalt coating with power washing, scraping or brushing.
- Remove all silicone caulks and sealants. Acrylic coatings, primers and flashing grade products will not bond to silicone caulks, sealants or coatings.
- Remove and replace deteriorated pipe boots and other flexible flashing materials.

Note: All metal surfaces to receive the Mule-Hide Acrylic Coatings must be thoroughly cleaned and dry prior to application. Mule-Hide recommends cleaning with a pressure washer using Mule-Hide 115 CLEANER at a minimum application rate of ¼ gal. per 100 sq. ft. Always thoroughly rinse with clean water and allow to dry completely.

METAL ROOF COATING SYSTEM – CONT.

Step 2. A-125 METAL ROOF PRIMER

A-125 Metal Primer is a zinc-rich, dark yellow color for easy to see coverage. Improves adhesion of finish coating over:

- Steel
- Aluminum
- Galvanized Steel
- Galvalume
- Copper
- Lead Coated Copper

A-125 Metal Roof Primer encapsulates rust and inhibits development of new rust on ferrous surfaces. Apply by brush, roller, or airless sprayer.

- Cover and mask surfaces not to be coated.
- Re-tighten or replace loose fasteners. Replaced fasteners require spot priming of the metal surface with A-125 prior to fastener replacement.
- Foam inserts or backer rods are often in place along the ridge cap. If backer rod is present and in good condition, repairs may not be necessary. If inserts are deteriorated, remove and replace prior to coating. *Note: If an open ridge cap is the primary ventilation system, consult with building owner about proper vents prior to performing any repair and/or coating work.*
- Commencement of work by the applicator implies applicator's approval of the deck surface.
- Apply A-125 at a rate of 0.5 gallons per 100 square feet (8 wet mils). Medium to heavy rusted areas may require additional coats. After application there should be no visible rust. (Applying A-125 at higher coverage rates in one coat can result in surface splitting and blistering due to trapped moisture.)

Step 3. A-200 FLASHING GRADE / DETAILING

A-200 FLASHING GRADE is a thixotropic, acrylic, highly flexible sealant, formulated to seal seams, penetrations, flashings, metal roof fasteners, and other areas to fill voids in the substrate prior to finish coat application. A-200 FLASHING GRADE can be brushed, rolled or extruded. Standard color is white.

- Apply A-200 to all fasteners, all panel side laps, all panel end laps, rake edges, ridge caps, gutter straps, curb flashings and penetrations.
- Use a brushing motion perpendicular to the seam to force the A-200 between the metal surfaces.
- Apply a 3″ band of A-200 at a thickness of not less than 60 wet mils over the top of all seams and flashings.

Note: Failure to apply the minimum thickness of 60 wet mils can result in poor performance of the product. The maximum thickness of A-200 applied in one coat is 120 wet mils. Applying A-200 thicker than 120 wet mils could result in surface splitting due to trapped moisture. If a thicker build up of product is desired, the A-200 should be applied in multiple coats.

DETAIL TIPS

Deteriorated End Laps – Install minimum 6″ wide Seal-Fast Fabric Tape at open end laps and coat with A-200 FLASHING GRADE. Clean end laps of all existing sealants and coatings to expose metal panels. Center 6″ Seal-Fast Fabric Tape over end lap, ensuring that tape is continuous up and over all ridges and/or standing seams. Coat Seal Fast Fabric Tape with A-200 FLASHING GRADE and feather edges onto roof panel.

METAL ROOF COATING SYSTEM – CONT.

Round Penetrations – Install new flexible "boot" flashings at round projections. Install boot flashings after A-125 METAL PRIMER has been installed but before A-300 FINISH is installed. Apply A-200 FLASHING GRADE over all fasteners and flanges and feather edges onto roof panel. Ensure that all flanges are sealed tightly to the metal panels and that the termination is clamped and sealed with one-part urethane sealant.

Metal Curb Flashing – On metal roofs with integral metal curbs, treat the laps around the base of the curbs just as an end lap. Clean all existing sealants and coatings to expose the metal lap. Apply A-200 to laps and fasteners. For deteriorated curb flashings, apply Seal Fast Fabric Tape and coat with A-200, feathered on edges for smooth transition to metal panels.

Lightning Protection – Contractors may encounter lightning protection systems installed on the roof. Most lightning protection systems consist of a series of metal lightning rods connected together by a metallic ground wire. To ensure 100% coverage, the existing lightning rods and ground wire mounts should be removed prior to applying A-125 Metal Roof Primer and A-300 Finish. Reinstall lightning protection system after roof has been coated.

Step 4. A-300 FINISH

A-300 FINISH is an ENERGY STAR® rated highly elastomeric coating. A-300 FINISH offers exceptional durability and UV stability to extend roof life. Attractive bright white color reduces energy consumption. Apply by brush, roller, or airless sprayer. A-300 is a single component, professional grade acrylic finish coat.

A-300 coverage rates:

- For 5 yr Limited Material or 5 yr Roof Coating Systems (labor and material) Warranty:
  - Finished coverage rate = 2 gallons per 100 square feet (min.).
  - Mule-Hide recommends 2 coats, applied at a rate of 1 gal. per 100 square feet per coat (16 wet mils per coat).
- For 10 yr Limited Material or 10 yr Roof Coating Systems (labor and material) Warranty:
  - Finished coverage rate = 3 gallons per 100 square feet (min.).
  - Mule-Hide requires 2 coats, applied at a rate of 1.5 gal. per 100 square feet per coat (24 wet mils per coat).

Note: ***Do not apply A-300 at a coverage rate higher than 2 gal per 100 square feet per coat (32 wet mils)*** *as it may result in surface splitting due to trapped moisture. When applying multiple coats, A-300 should always be applied at a rate of 1 to 1.5 gallons per 100 square feet (16 – 24 wet mils).* ***The second coat of A-300 should be applied perpendicular to the first coat.***

For periodic ponded water areas

A-320 is to be applied in areas of light ponding (not exceeding 48 hours). A-320 is to be installed as a top coat over the last coat of A-300. A-320 is not be used as a substitute for the second coat of A-300. A-320 should extend several feet in all directions beyond ponded area. A-320 FINISH is formulated to improve resistance to damage caused by periodic ponding. However, A-320 FINISH is not intended as a "cure all" for ponded water situations and prolonged exposure to moisture in ponded areas may be detrimental to A-320 FINISH.

A-320 coverage rates (ponded areas only):

- For 5 yr Limited Material or 5 yr Roof Coating Systems (labor and material) Warranty:
  - Finished coverage rate = 1 gallons per 100 square feet (min.) (16 wet mils per coat).
  - **A-320 is to be used as a top coat over the last coat of A-300 FINISH. A-320 is not be used as a substitute for the last coat of A-300 FINISH.**
- For 10 yr Limited Material or 10 yr Roof Coating Systems (labor and material) Warranty:
  - Finished coverage rate = 1-1/2 gallons per 100 square feet (min.) (24 wet mils per coat).
  - **A-320 is to be used as a top coat over the last coat of A-300 FINISH. A-320 is not be used as a substitute for the last coat of A-300 FINISH.**

COATING NEW SMOOTH BUR (5 YRS OR LESS) OR SMOOTH MODIFIED BITUMEN

Products Needed: A-200, A-320

Note: If the smooth BUR surface has been previously coated with an unknown coating, an adhesion test should be performed prior to bidding the project.

Step 1. Surface Preparation

All loose existing coatings and other debris must first be removed. It may be necessary to add a fungicide to remove heavy accumulations of fungi and algae.

Repair existing roof system per guidelines published in NRCA's Repair Manual for Low-slope Membrane Roof Systems. Blisters, holes, splits or tears, and other damaged areas must be repaired prior to coating.

Surface Preparation Tips

- Newly installed Smooth BUR and smooth Modified Bitumen Roof Systems should weather a minimum of 90 days.
- All surfaces to receive acrylic coatings must be clean, dry and free of any debris or contaminants that would inhibit proper adhesion of the acrylic coating.
- Cleaning of the surfacing can be achieved by power brooming, vacuuming, power washing or other means necessary to provide a clean surface.
- If power washing, notify building owner to be prepared for the possibility of some water entering the building during the power washing process. Avoid spraying directly into seams or open penetrations. Power washing effectively removes existing dirt and debris that would adversely affect the bonding of acrylic coatings. Excessively soiled surfaces may require additional cleaning or scrubbing with a stiff-bristle broom or scrub brush. Use care to prevent damage to the roof surface while power washing
- The existing roof surface must be sound. Trapped moisture within the roof system must be removed and all wet or damp materials replaced with new, like materials.

COATING NEW SMOOTH BUR (5 YRS OR LESS) OR SMOOTH MODIFIED BITUMEN – CONT.

- Coating over existing aluminum coating requires the application of either Mule-Hide #301 Fibrated Emulsion Roof Coating or Mule-Hide #311 Non-Fibrated Emulsion Roof Coating prior to applying the first coat of A-320. Power wash the existing roof surface to remove all loose and flaking aluminized coating. High pressure power washing may not be adequate to remove all loose and flaking aluminized coating. It may be necessary to brush the coating with a stiff bristle broom after power washing the first time to remove any remaining loose and flaking coating. After brushing, power wash again. After the roof has thoroughly dried, apply the emulsion roof coating, apply the emulsion roof coating in one coat at a rate of 1-3 gallons per 100 square feet, depending on the roughness of the substrate. Allow the emulsion to dry a minimum of 48 hours before applying the acrylic coating. The emulsion must be thoroughly dry and firm enough to take foot traffic without damage prior to being coated. Drying time will be longer, 3 to 7 days, in cool and/or damp weather. Test for dryness in slowest drying areas by rubbing surface with a wet finger. Emulsion is dry if no staining occurs on your finger and the emulsion does not distort under pressure.
- All blisters shall be cut out and patched with the appropriate materials. Wet must be removed and replaced with new materials.
- Repairs to the existing roof system should be completed following good roofing practices and within the guidelines as indicated in the NRCA Roof Repair Manual.
- On severely alligatored membranes or membranes with exposed felts, an application of Mule-Hide #301 Fibrated Emulsion Roof Coating or Mule-Hide #311 Non-Fibrated Emulsion Roof Coating is strongly recommended to provide a smooth substrate to receive the new acrylic coating. The emulsion roof coating should be applied in two coats at a rate of 2-3 gallons per 100 square feet per coat for a total of 4-6 gallons per 100 square feet. Allow the emulsion to dry a minimum of 48 hours before applying the acrylic coating. The emulsion must be thoroughly dry and firm enough to take foot traffic without damage prior to being coated. Drying time will be longer, 3 to 7 days, in cool and/or damp weather. Test for dryness in slowest drying areas by rubbing surface with a wet finger. Emulsion is dry if no staining occurs on your finger and the emulsion does not distort under pressure.

COATING NEW SMOOTH BUR (5 YRS OR LESS) OR SMOOTH MODIFIED BITUMEN – CONT.

- All mechanical equipment curbs, pipe flashings and other roof penetrations shall be resealed with A-200 FLASHING GRADE Sealant.
- The roof must have good, positive drainage. All ponding areas (exceeding 48 hours) must be corrected by leveling or installing new roof drains prior to application of the acrylic coatings.

Note: When performing roof repairs with asphalt based roof cements and mastics, completed repairs should weather a minimum 60 days before coating. Some staining over fresh asphalt may occur. If staining does occur, wait thirty days after completion and power wash areas and recoat with A-320.

Step 2. A-200 FLASHING GRADE
A-200 is a thixotropic, acrylic, highly flexible sealant. A-200 is formulated to seal penetrations, flashings, and other areas. Can be brushed, rolled or extruded.

- Apply A-200 to seal all penetrations, flashings, laps on parapet walls, and to fill cracks or holes over 1/8".

Note: Failure to apply the minimum thickness of 60 wet mils can result in poor performance of the product. The maximum thickness of A-200 applied in one coat is 120 wet mils. Applying A-200 thicker than 120 wet mils could result in surface splitting due to trapped moisture. If thicker build up of product is desired the A-200 should be applied in multiple coats.

Step 3. A-320 FINISH (For coating over asphaltic substrates.)
A-320 is a white, non-yellowing, acrylic based elastomeric coating. It exhibits exceptional exterior durability and UV stability, superior flexibility in low temperatures, and

is high reflectivity. A-320 will maintain its cool, white, protective seal over asphaltic substrates that would stain and darken conventional white, acrylic coatings. Attractive bright white reduces energy consumption. Apply by brush, roller, or airless sprayer. A-320 is a single component, professional grade acrylic finish coat.

A-320 coverage rates:

Over New Smooth BUR (5 yrs or less) or Over Smooth Mod Bit (both must age minimum 90 days):

- For 5 yr Limited Material Warranty:
  - Finished coverage rate = 2 gallons per 100 square feet (min.).
  - Mule-Hide recommends 2 coats, applied at a rate of 1 gal. per 100 square feet per coat (16 wet mils per coat).

- For 10 yr Limited Material Warranty:
  - Finished coverage rate = 3 gallons per 100 square feet (min.).
  - Mule-Hide requires 2 coats, applied at a rate of 1.5 gal. per 100 square feet per coat (24 wet mils per coat).

California Title 24 Compliance

To meet California's Title 24 requirements, a top coat of A-300 must be applied over the last coat of A-320. A-300 meets ASTM 6083 requirements, which is required on exposed surfaces in California's Title 24 legislation.

COATING GRANULATED MODIFIED BITUMEN CAP SHEET OR MINERAL SURFACE BUR CAP SHEET

Products Needed: A-200, A-320

Note: If these surfaces have been previously coated with an unknown coating, an adhesion test should have been performed prior to bidding the project.

Step 1. Surface Preparation

All loose existing coatings and other debris must first be removed. It may be necessary to add a fungicide to remove heavy accumulations of fungi and algae.

Repair existing roof system per guidelines published in NRCA's Repair Manual for Low-slope Membrane Roof Systems. Blisters, holes, splits or tears, and other damaged areas must be repaired prior to coating.

Surface Preparation Tips

- Newly installed granulated modified bitumen or mineral surfaced cap sheet roof systems should weather a minimum of 90 days.
- All surfaces to receive acrylic coatings must be clean, dry and free of any debris or contaminants that would inhibit proper adhesion of the acrylic coating.
- Cleaning of the surfacing can be achieved by power brooming, vacuuming, power washing or other means necessary to provide a clean surface.
- If power washing, notify building owner to be prepared for the possibility of some water entering the building during the power washing process. Avoid spraying directly into seams or open penetrations. Power washing effectively removes existing dirt and debris that would adversely affect the bonding of acrylic coatings. Excessively soiled surfaces may require additional cleaning or scrubbing with a stiff-bristle broom or scrub brush. Use care to prevent damage to the roof surface while power washing.
- The existing roof surface must be sound. Trapped moisture within the roof system must be removed and all wet or damp materials replaced with new, like materials.
- Coating over existing aluminum coating requires the application of either Mule-Hide #301 Fibrated Emulsion Roof Coating or Mule-Hide #311 Non-Fibrated Emulsion Roof Coating prior to applying the first

coat of A-320. Power wash the existing roof surface to remove all loose and flaking aluminized coating. High pressure power washing may not be adequate to remove all loose and flaking aluminized coating. It may be necessary to brush the coating with a stiff bristle broom after power washing the first time to remove any remaining loose and flaking coating. After brushing, power wash again. After the roof has thoroughly dried, apply the emulsion roof coating in one coat at a rate of 1-3 gallons per 100 square feet, depending on the roughness of the substrate. Allow the emulsion to dry a minimum of 48 hours before applying the acrylic coating. The emulsion must be thoroughly dry and firm enough to take foot traffic without damage prior to being coated. Drying time will be longer, 3 to 7 days, in cool and/or damp weather. Test for dryness in slowest drying areas by rubbing surface with a wet finger. Emulsion is dry if no staining occurs on your finger and the emulsion does not distort under pressure.

- All blisters shall be cut out and patched with the appropriate materials. Wet materials must be removed and replaced with new materials.
- Repairs to the existing roof system should be completed following good roofing practices and within the guidelines as indicated in the NRCA Roof Repair Manual.
- On severely alligatored membranes or membranes with exposed felts, an application of Mule-Hide #301 Fibrated Emulsion Roof Coating or Mule-Hide #311 Non-Fibrated Emulsion Roof Coating is strongly recommended to provide a smooth substrate to receive the new acrylic coating. The emulsion roof coating should be applied in two coats at a rate of 2-3 gallons per 100 square feet per coat for a total of 4-6 gallons per 100 square feet. Allow the emulsion to dry a minimum of 48 hours before applying the acrylic coating. The emulsion must be thoroughly dry and firm enough to take foot traffic without damage prior to being coated. Drying time will be longer, 3 to 7 days, in cool and/or damp weather. Test for dryness in slowest drying areas by rubbing surface with a wet finger. Emulsion is dry if no staining occurs on your finger and the emulsion does not distort under pressure.
- All mechanical equipment curbs, pipe flashings and other roof penetrations shall be resealed with A-200 Flashing Grade Sealant.
- The roof must have good, positive drainage. **All ponding areas (exceeding 48 hours) must be corrected by leveling or installing new roof drains prior to application of the acrylic coatings.**

COATING GRANULATED MODIFIED BITUMEN CAP SHEET OR MINERAL SURFACE BUR CAP SHEET - CONT.

Step 2. A-200 FLASHING GRADE
A-200 is a thixotropic, acrylic, highly flexible sealant. A-200 is formulated to seal penetrations, flashings, and other areas. Can be brushed, rolled or extruded. Standard white color.

- Apply A-200 to seal all penetrations, flashings, laps on parapet walls, and to fill cracks or holes over 1/8".

Note: Failure to apply the minimum thickness of 60 wet mils can result in poor performance of the product. The maximum thickness of A-200 applied in one coat is 120 wet mils. Applying A-200 thicker than 120 wet mils could result in surface splitting due to trapped moisture. If thicker build up of product is desired the A-200 should be applied in multiple coats.

Step 3. A-320 FINISH (For coating over asphaltic substrates)
A-320 is a white, non-yellowing, acrylic based elastomeric coating. It exhibits exceptional exterior durability and UV stability, superior flexibility in low temperatures, and high reflectivity. A-320 will maintain its cool, white, protective seal over asphaltic substrates that would stain and darken conventional white, acrylic coatings. Attractive bright white reduces energy consumption. Apply by brush, roller, or airless sprayer. A-320 is a single component, professional grade acrylic finish coat.

A-320 coverage rates:

Over Granulated Mod Bit Cap Sheet or Mineral Surface BUR Cap Sheet:

- For 5 yr Limited Material Warranty:
  - Finished coverage rate = 3 gallons per 100 square feet (min.).
  - Mule-Hide requires 2 coats, applied at a rate of 1.5 gal. per 100 square feet per coat (24 wet mils per coat).
- For 10 yr Limited Material Warranty:
  - Finished coverage rate = 4 gallons per 100 square feet (min.).
  - Mule-Hide requires 2 coats, applied at a rate of 1.5 gal. per 100 square feet per coat (24 wet mils per coat).
  - Mule-Hide requires 3rd coat, applied at a rate of 1 gal. per square 100 feet per coat (16 wet mils per coat).

COATING GRANULATED MODIFIED BITUMEN CAP SHEET OR MINERAL SURFACE BUR CAP SHEET - CONT.

Note: ***Do not apply A-320 at a coverage rate higher than 2 gal per 100 square feet per coat (32 wet mils)*** *as it can result in surface splitting due to trapped moisture. When applying multiple coats, A-320 should always be applied at a rate of 1 to 1.5 gallons per 100 square feet (16-24 wet mils).* ***The subsequent coats of A-320 should be applied perpendicular to the prior coat.***

California Title 24 Compliance

To meet California's Title 24 requirements, a top coat of A-300 must be applied over the last coat of A-320. A-300 meets ASTM 6083 requirements, which is required on exposed surfaces in California's Title 24 legislation.

COATING AGED SMOOTH BUR (OVER 5 YRS OLD)

Products Needed: A-200, A-300, A-320

Step 1. Surface Preparation
All loose existing coatings and other debris must first be removed. It may be necessary to add a fungicide to remove heavy accumulations of fungi and algae. Excessively soiled surfaces may require additional cleaning or scrubbing with a stiff-bristle broom or scrub brush.

Repair existing roof system per NRCA guidelines. Blisters, holes, splits or tears, and other damaged areas must be repaired prior to coating.

Surface Preparation Tips

- All surfaces to receive acrylic coatings must be clean, dry and free of any debris or contaminants that would inhibit proper adhesion of the acrylic coating.
- Cleaning of the surfacing can be achieved by power brooming, vacuuming, power washing or other means necessary to provide a clean surface.
- If power washing, notify building owner to be prepared for the possibility of some water entering the building during the power washing process. Avoid spraying directly into seams or open penetrations. Power washing effectively removes existing dirt and debris that would adversely affect the bonding of acrylic coatings. Excessively soiled surfaces may require additional cleaning or scrubbing with a stiff-bristle broom or scrub brush. Use care to prevent damage to the roof surface while power washing
- The existing roof surface must be sound. Trapped moisture within the roof system must be removed and all wet or damp materials replaced with new, like materials.
- Coating over existing aluminum coating requires the application of either Mule-Hide #301 Fibrated Emulsion Roof Coating or Mule-Hide #311 Non-Fibrated Emulsion Roof Coating prior to applying the first coat of A-320. Power wash the existing roof surface to remove all

COATING AGED SMOOTH BUR (OVER 5 YRS OLD) – CONT.

loose and flaking aluminized coating. High pressure power washing may not be adequate to remove all loose and flaking aluminized coating. It may be necessary to brush the coating with a stiff bristle broom after power washing the first time to remove any remaining loose and flaking coating. After brushing, power wash again. After the roof has thoroughly dried, apply the emulsion roof coating in one coat at a rate of 1-3 gallons per 100 square feet, depending on the roughness of the substrate. Allow the emulsion to dry a minimum of 48 hours before applying the acrylic coating. The emulsion must be thoroughly dry and firm enough to take foot traffic without damage prior to being coated. Drying time will be longer, 3 to 7 days, in cool and/or damp weather. Test for dryness in slowest drying areas by rubbing surface with a wet finger. Emulsion is dry if no staining occurs on your finger and the emulsion does not distort under pressure.

- All blisters shall be cut out and patched with the appropriate materials. Wet must be removed and replaced with new materials.
- Repairs to the existing roof system should be completed following good roofing practices and within the guidelines as indicated in the NRCA Roof Repair Manual.
- On severely alligatored membranes or membranes with exposed felts, an application of Mule-Hide #301 Fibrated Emulsion Roof Coating or Mule-Hide #311 Non-Fibrated Emulsion Roof Coating is strongly recommended to provide a smooth substrate to receive the new acrylic coating. Apply the emulsion roof coating in one coat at a rate of 1-3 gallons per 100 square feet, depending on the roughness of the substrate. Allow the emulsion to dry a minimum of 48 hours before applying the acrylic coating. The emulsion must be thoroughly dry and firm enough to take foot traffic without damage prior to being coated. Drying time will be longer, 3 to 7 days, in cool and/or damp weather. Test for dryness in slowest drying areas by rubbing surface with a wet finger. Emulsion is dry if no staining occurs on your finger and the emulsion does not distort under pressure.
- All mechanical equipment curbs, pipe flashings and other roof penetrations shall be resealed with A-200 Flashing Grade Sealant.
- The roof must have good, positive drainage. All ponding areas **(exceeding 48 hours) must be corrected by leveling or installing new roof drains prior to application of the acrylic coatings.**

COATING AGED SMOOTH BUR (OVER 5 YRS OLD) – CONT.

Note: When performing roof repairs with asphalt based roof cements and mastics, completed repairs should weather a minimum 60 days before coating. Some staining over fresh asphalt may occur. If staining does occur, wait thirty days after completion and power wash areas and recoat with A-320.

Step 2. A-200 FLASHING GRADE
A-200 is a thixotropic, acrylic, highly flexible sealant, formulated to seal penetrations, flashings, and other areas. Can be brushed, rolled or extruded.

- Apply A-200 to seal all penetrations, flashings laps, and to fill cracks or holes over 1/8″.

Note: Failure to apply the minimum thickness of 60 wet mils can result in poor performance of the product. The maximum thickness of A-200 applied in one coat is 120 wet mils. Applying A-200 thicker than 120 wet mils could result in surface splitting due to trapped moisture. If thicker build up of product is desired the A-200 should be applied in multiple coats.

Step 3. A-300 FINISH
ENERGY STAR® rated highly elastomeric coating. A-300 FINISH offers exceptional durability and UV stability to extend roof life. Attractive bright white color reduces energy consumption. Apply by brush, roller, or airless sprayer. A-300 is a single component, professional grade acrylic finish coat.

A-300 coverage rates:

- For 5 yr Limited Material Warranty:
  - Finished coverage rate = 2 gallons per 100 square feet (min.).
  - Mule-Hide recommends 2 coats, applied at a rate of 1 gal. per 100 square feet per coat (16 wet mils per coat).
- For 10 yr Limited Material Warranty:

COATING AGED SMOOTH BUR (OVER 5 YRS OLD) – CONT.

- Finished coverage rate = 3 gallons per 100 square feet (min.).
- Mule-Hide requires 2 coats, applied at a rate of 1.5 gal. per 100 square feet per coat (24 wet mils per coat).

Note: ***Do not apply A-300 at a coverage rate higher than 2 gal. per 100 square feet per coat (32 wet mils)*** *as it can result in surface splitting due to trapped moisture. When applying multiple coats, A-300 should always be applied at a rate of 1 to 1.5 gallons per 100 square feet (16-24 wet mils).* ***The second coat of A-300 should be applied perpendicular to the first coat.***

For periodic ponded water areas

A-320 is to be applied in areas of light ponding (not exceeding 48 hours). A-320 is to be installed as a top coat over the last coat of A-300. A-320 is not be used as a substitute for the second coat of A-300. A-320 should extend several feet in all directions beyond ponded area. A-320 FINISH is formulated to improve resistance to damage caused by periodic ponding. However, A-320 FINISH is not intended as a "cure all" for ponded water situations and prolonged exposure to moisture in ponded areas may be detrimental to A-320 FINISH.

A-320 coverage rates (ponded areas only):

- For 5 yr Limited Material:
  - Finished coverage rate = 1 gallons per 100 square feet (min.) (16 wet mils).
  - **A-320 is to be used as a top coat over the last coat of A-300 FINISH. A-320 is not be used as a substitute for the last coat of A-300 FINISH.**
- For 10 yr Limited Material:
  - Finished coverage rate = 1-1/2 gallons per 100 square feet (min.) (24 wet mils).
  - **A-320 is to be used as a top coat over the last coat of A-300 FINISH. A-320 is not be used as a substitute for the last coat of A-300 FINISH.**

California Title 24 Compliance

To meet California's Title 24 requirements, a top coat of A-300 must be applied over the last coat of A-320. A-300 meets ASTM 6083 requirements, which is required on exposed surfaces in California's Title 24 legislation.

EPDM RESTORATION SYSTEM™

Guidelines below are for Fully Adhered or Mechanically Attached Black EPDM Roofing Systems. Mule-Hide Elastomeric Acrylic Coatings are NOT recommended for white EPDM membrane.

Products Needed: A-151, A-300, A-320

Step 1. Surface Preparation

Clear the existing EPDM roof of all debris. First, remove large branches, stones or any other large objects. Then use an air blower or a stiff bristled broom to remove all loose dirt or other impediments.

Surface Preparation Tips

- Apply A-151 EPDM ReSurface Agent™ full strength using an agricultural sprayer or airless spray equipment. Apply A-151 to a dry surface. Applying A-151 to a wet surface will dilute the A-151 and will lessen the effectiveness of the product. Adjust the spray nozzle to a uniform spray pattern. A continuous spray pattern with a 3 to 4 foot arc works the best. Allow the A-151 EPDM ReSurface Agent™ to stand for a minimum of 5 minutes. Caution: **The EPDM becomes very slippery after applying the A-151. Avoid walking on treated areas before rinsing.**
- Begin cleaning at the highest point of the roof. Use a constant overlapping pattern and work down the roof.
- Smaller roofs can be cleaned all at once. For larger projects, section off the roof to complete the cleaning process and finish coating. Always take care so as not to damage the roofing membrane or any of its components.
- A thorough two pass rinse using a pressure washer is required to remove the A-151. When rinsing start at the highest point of the roof, work to the bottom, and then repeat.
- Avoid forcing any water into the roof system through open seams or flashings.
- Upon completion of the cleaning of the membrane, rub a finger along the surface of the membrane. **The finger should be clean and show no signs of any black residue.**
- All open seams, flashings and other penetrations shall be sealed following standard details and repair methods for EPDM membrane

roofing systems. If cured membranes (with talc) are used for repairs, those repairs must be treated with A-151 ReSurface Agent™ before coating.

- If the roof has been leaking, repair or replacement of wet areas must be replaced with new like materials.
- The roof must have good, positive drainage. All ponding areas (exceeding 48 hours) must be corrected by leveling or installing new roof drains prior to application of the acrylic coatings.
- Allow the roof to dry completely after rinsing and before applying Mule-Hide A-300 FINISH.

Health and Safety Precautions: Mule-Hide A-151 EPDM ReSurface Agent™ has a high pH. **WEAR CHEMICAL SPLASH GOGGLES when applying A-151.** As with all chemicals, use caution and good industrial hygiene when handling and disposing of empty A-151 containers and ensure proper drainage for A-151 and rinse water run-off from the roof. The diluted A-151 rinse water can be safely discharged onto the ground surface. If in doubt, always contact the local authorities prior to discharging to the soil surface. **Never discharge A-151 (nor the rinse water generated) directly into any open body of water.** Refer to the A-151 MSDS for additional information or contact Mule- Hide Special Solutions Support, 1-800-786-1492.

Step 2. Repair EPDM using compatible products prior to coating.
REPAIR TIPS

- When repairing EPDM roofing systems be sure prepare the existing membrane by cleaning with Mule-Hide Weathered Membrane Cleaner and then prime the surface to be repaired with Mule-Hide materials
- Remove & reinstall fasteners that are backed out or tented. Relocate fasteners no more than 6” from original location
- Check all terminations to ensure fasteners are tight and caulking is not cracked and open
- Check uncured flashings and stripping for checking and cracking and replace deteriorated flashings
- Check seams for fish mouths and voids. Repair seams with EPDM Cured Cover Strip and Mule-Hide Tape Primer
- **Seal-Fast tapes are not an acceptable repair material on EPDM roofing systems**

EPDM RESTORATION SYSTEM™ - CONT.

Step 3. A-300 FINISH

ENERGY STAR® rated highly elastomeric coating. A-300 FINISH offers exceptional durability and UV stability to extend roof life. Attractive bright white color reduces energy consumption. Apply by brush, roller, or airless sprayer. A-300 is a single component, professional grade acrylic finish coat.

A-300 coverage rates:

- For 5 yr Limited Material Warranty:
  - Finished coverage rate = 2 gallons per 100 square feet (min.).
  - Mule-Hide requires 2 coats, applied at a rate of 1 gal. per 100 square feet per coat (16 wet mils per coat).
- For 10 yr Limited Material Warranty:
  - Finished coverage rate = 3 gallons per 100 square feet (min.).
  - Mule-Hide requires 2 coats, applied at a rate of 1.5 gal. per 100 square feet per coat (24 wet mils per coat).

Note: ***Do not apply A-300 at a coverage rate higher than 2 gal per 100 square feet per coat (32 wet mils)*** *as it can result in surface splitting due to trapped moisture. When applying multiple coats, A-300 should always be applied at a rate of 1 to 1-1/2 gallons per 100 square feet (16-24 wet mils).* ***The second coat of A-300 should be applied perpendicular to the first coat.***

For periodic ponded water areas

A-320 is to be applied in areas of light ponding (not exceeding 48 hours). A-320 is to be installed as a top coat over the last coat of A-300. A-320 is not be used as a substitute for the second coat of A-300. A-320 should extend several feet in all directions beyond ponded area. A-320 FINISH is formulated to improve resistance to damage caused by periodic ponding. However, A-320 FINISH is not intended as a “cure all” for ponded water situations and prolonged exposure to moisture in ponded areas may be detrimental to A-320 FINISH.

A-320 coverage rates (ponded areas only):

- For 5 yr Limited Material:
  - Finished coverage rate = 1 gallon per 100 square feet (min.) (16 wet mils).
  - **A-320 is to be used as a top coat over the last coat of A-300 FINISH. A-320 is not be used as a substitute for the last coat of A-300 FINISH.**
- For 10 yr Limited Material:
  - Finished coverage rate = 1-1/2 gallons per 100 square feet (min.) (16-24 wet mils).
  - **A-320 is to be used as a top coat over the last coat of A-300 FINISH. A-320 is not be used as a substitute for the last coat of A-300 FINISH.**

COATING AGED HYPALON (OVER 5 YRS OLD)

Guidelines are for Fully Adhered or Mechanically Attached Roofing Systems. Prior to cleaning roof, all field seams and flashings must be checked to confirm all welds are tight. All open seams/flashings should be marked for repairs after proper cleaning.

Products Needed: 115, A-200, A-300, A-320

Step 1. Surface Preparation

Clear the existing Hypalon roof of all debris. First, remove large branches, stones or any other large objects. Then use an air blower or a stiff bristled broom to remove all loose dirt or other impediments.

Surface Preparation Tips

- The surface of the membrane must be thoroughly cleaned, dry and free of all dirt, residue, and any foreign debris or material.
- TSP (if permitted) or a TSP substitute used with a stiff bristle broom or scrub brushes may be necessary to remove accumulations of dirt. If mildew or fungi exists, a good fungicide may be necessary during cleaning.
- Power wash at 2000 psi with full strength 115 Cleaner at a rate of 0.25 gallons per 100 sq. ft.
- Rinse roof thoroughly with water.
- Deteriorated flashings and membrane should be repaired in compliance with the membrane manufacturer's recommendations. If the manufacturer is unknown repairs may be completed using EPDM Flashing, Seaming Tapes, Tape Primer, EPDM membrane, Lap Sealant and adhesives.
- Remove & reinstall fasteners that are backed out or tented. Relocate fasteners no more than 6″ from original location.
- The existing roof must be returned to a sound, watertight roof system prior to applying the coatings.
- The roof must have good, positive drainage. All ponding areas **(exceeding 48 hours) must be corrected by leveling or installing new roof drains prior to application of the acrylic coatings.**
- Avoid forcing any water into the roof system through open seams or flashings.
- Allow the roof to dry completely after rinsing and before applying Mule-Hide A-300 FINISH.

Repair damages, open seams and flashings using Hypalon compatible products prior to coating. Including tightening or re-securing all terminations, caulk termination bars, and flashings. All repairs must be completed and the roof watertight prior to coating.

Step 2. A-300 FINISH
ENERGY STAR® rated highly elastomeric coating. A-300 FINISH (A-300) offers exceptional durability and UV stability to extend roof life. Attractive bright white color reduces energy consumption. Apply by brush, roller, or airless sprayer. A-300 is a single component, professional grade acrylic finish coat.

A-300 coverage rates:

- For 5 yr Limited Material Warranty:
  - Finished coverage rate = 2 gallons per 100 square feet (min.).
  - Mule-Hide recommends 2 coats, applied at a rate of 1 gal. per 100 square feet per coat (16 wet mils per coat).
- For 10 yr Limited Material Warranty:
  - Finished coverage rate = 3 gallons per 100 square feet (min.).
  - Mule-Hide requires 2 coats, applied at a rate of 1.5 gal. per 100 square feet per coat (24 wet mils per coat).

Note: ***Do not apply A-300 at a coverage rate higher than 2 gal per 100 square feet per coat (32 wet mils)*** *as it can result in surface splitting due to trapped moisture. When applying multiple coats, A-300 should always be applied at a rate of 1 to 1-1/2 gallons per 100 square feet (16-24 wet mils).* ***The second coat of A-300 should be applied perpendicular to the first coat.***

COATING AGED HYPALON (OVER 5 YRS OLD) – CONT.

For periodic ponded water areas

A-320 is to be applied in areas of light ponding (not exceeding 48 hours). A-320 is to be installed as a top coat over the last coat of A-300. A-320 is not be used as a substitute for the second coat of A-300. A-320 should extend several feet in all directions beyond ponded area. A-320 FINISH is formulated to improve resistance to damage caused by periodic ponding. However, A-320 FINISH is not intended as a "cure all" for ponded water situations and prolonged exposure to moisture in ponded areas may be detrimental to A-320 FINISH.

A-320 coverage rates (ponded areas only):

- For 5 yr Limited Material:
  - Finished coverage rate = 1 gallon per 100 square feet (min.) (16 wet mils).
  - **A-320 is to be used as a top coat over the last coat of A-300 FINISH. A-320 is not be used as a substitute for the last coat of A-300 FINISH.**
- For 10 yr Limited Material:
  - Finished coverage rate = 1-1/2 gallons per 100 square feet (min.) (24 wet mils).
  - **A-320 is to be used as a top coat over the last coat of A-300 FINISH. A-320 is not be used as a substitute for the last coat of A-300 FINISH.**

COATING NEW SPRAY POLYURETHANE FOAM (SPF/PUF)

Positive slope required. Products Needed: A-300, A-320

Step 1. Surface Preparation

Mule-Hide Acrylic Coatings are approved over new spray polyurethane foam (SPF) roofs only. Mule-Hide Acrylic Coatings are not to be used to recoat an existing SPF roof system.

Surface Preparation Tips

- Surface of SPF roof must be smooth to orange peel in texture. "Popcorn" finish is not acceptable
- All oxidized foam must be removed and replaced
- Surface of roof shall be free from undulations and "bird bath" pockets and be sloped for positive drainage
- No pinholes or "fisheyes" are allowed on surface before coating

Step 2. A-300 FINISH

ENERGY STAR® rated highly elastomeric coating. A-300 FINISH offers exceptional durability and UV stability to extend roof life. Attractive bright white color reduces energy consumption. Apply by brush, roller, or airless sprayer. A-300 is a single component, professional grade acrylic finish coat.

A-300 coverage rates:

- For 5 yr Limited Material Warranty:
- Finished coverage rate = 2 gallons per 100 square feet (min.).
- Mule-Hide requires 2 coats, applied at a rate of 1 gal. per 100 square feet per coat (16 wet mils per coat).
- For 10 yr Limited Material Warranty:
  - Finished coverage rate = 3 gallons per 100 square feet (min.).
  - Mule-Hide requires 2 coats, applied at a rate of 1.5 gal. 100 per square feet per coat (24 wet mils per coat).

Note: ***Do not apply A-300 at a coverage rate higher than 2 gal. per 100 square feet per coat (32 wet mils)*** *as it can result in surface splitting due to trapped moisture. When applying multiple coats, A-300 should always be applied at a rate of 1 to 1.5 gallons per 100 square feet (16-24 wet mils).* ***The second coat of A-300 should be applied perpendicular to the first coat.***

COATING NEW SPRAY POLYURETHANE FOAM (SPF/PUF) – CONT.

For periodic ponded water areas

A-320 is to be applied in areas of light ponding (not exceeding 48 hours). A-320 is to be installed as a top coat over the last coat of A-300. A-320 is not be used as a substitute for the second coat of A-300. A-320 should extend several feet in all directions beyond ponded area. A-320 FINISH is formulated to improve resistance to damage caused by periodic ponding. However, A-320 FINISH is not intended as a "cure all" for ponded water situations and prolonged exposure to moisture in ponded areas may be detrimental to A-320 FINISH.

A-320 coverage rates (ponded areas only):

- For 5 yr Limited Material:
  - Finished coverage rate = 1 gallon per 100 square feet (min.) (16 wet mils).
  - **A-320 is to be used as a top coat over the last coat of A-300 FINISH. A-320 is not be used as a substitute for the last coat of A-300 FINISH.**
- For 10 yr Limited Material:
  - Finished coverage rate = 1-1/2 gallons per 100 square feet (min.) (24 wet mils).
  - **A-320 is to be used as a top coat over the last coat of A-300 FINISH. A-320 is not be used as a substitute for the last coat of A-300 FINISH.**

COATING MASONRY WALLS

Products Needed: 115, A-200, A-400-W

Step 1. Power Wash with 115 CLEANER & make repairs

115 CLEANER is used as a general purpose cleaner prior to coating masonry surfaces with Mule-Hide Elastomeric Acrylic Coatings. All loose existing coatings, debris, and dirt must first be removed. Note: New masonry must be fully cured (30 days or more).

Surface Preparation Tips

- Sand and rough-up old enamel and gloss paints to ensure new coating adhesion. Always perform an adhesion test after preparing old enamel and gloss paints.
- Power wash at 2000 psi with full strength 115 at a rate of 0.25 gallons per 100 sq. ft.
- Rinse roof thoroughly with water.

Surface Preparation Tips

- To improve finish appearance and to decrease chances of runs and drips, apply A-300 in multiple light coats until the required coverage rate is achieved.

Cracks up to 1/8 wide may be addressed with A-200 FLASHING GRADE SEALANT. For cracks larger than 1/16 up to a 1/8 wide. Cracks larger than 1/8 are to be repaired in accordance with published Masonry Institute of America guidelines prior to application of Mule-Hide Elastomeric Coatings. If using patching compounds, follow the product manufacturer's guidelines for proper cure time required prior to coating.

COATING MASONRY WALLS – CONT.

Step 2. A-200 FLASHING GRADE

A-200 is a thixotropic, acrylic, highly flexible sealant, formulated to seal cracks and other areas to fill voids in the masonry surface prior to finish coat application. Can be brushed, rolled or extruded. Standard white color.

- Check dryness of masonry prior to applying coatings. Test by using a 4 mil clear, plastic sheet and covering an 18 sq. inch area by sealing all edges with duct tape. After 24 hours, if the covered area is darker than the exposed area, or moisture forms on the plastic sheet, the wall is too wet to coat. **New concrete must be cured a minimum of 30 days.**
- Apply A-200 to fill all cracks larger than 1/16″ up to a maximum width of 1/8″.
- Feather all edges.

Note: Failure to apply the minimum thickness of 60 wet mils can result in poor performance of the product. The maximum thickness of A-200 applied in one coat is 120 wet mils. Applying A-200 thicker than 120 wet mils could result in surface splitting due to trapped moisture. If thicker build up of product is desired the A-200 should be applied in multiple coats.

Step 3. A-400-W MASONRY WALL COATING

A-400-W is formulated to provide a flexible, waterproofing, liquid applied membrane for exterior masonry surfaces. This highly elastomeric coating offers exceptional durability and UV stability. Attractive light colors reduce energy consumption. Apply by brush, roller, or airless sprayer. A-400-W is a single

component, professional grade acrylic coating. Available in five colors – white, beige, tan, light grey, dark grey.

A-400-W coverage rates:

- For 5 yr Limited Material Warranty:
  - Finished coverage rate = 2 gallons per 100 square feet (min.).
  - Mule-Hide recommends 2 coats, applied at a rate of 1 gal. per 100 square feet per coat (16 wet mils per coat).

Note: ***Do not apply A-400-W at a coverage rate higher than2 gal per 100 square feet per coat (32 wet mils)*** *as it can result in runs or sags and surface splitting due to trapped moisture. When applying multiple coats, A-400-W should always be applied at a rate of 1 to 1.5 gallons per 100 square feet (16-24 wet mils).* ***The second coat of A-400-W should be applied perpendicular to the first coat after a minimum of 12 hours but before 72 hours after the first coat.***

COATING SKYLIGHTS

Products Needed: 115, A-200, A-301

Step 1. Power Wash with 115 CLEANER & make repairs

Mule-Hide 115 CLEANER is used as a general purpose cleaner prior to coating skylights with Mule-Hide Elastomeric Acrylic Coatings. All loose existing coatings, debris, and fresh roof cement must first be removed.

- Power wash at 2000 psi with full strength 115 at a rate of 0.25 gallons per 100 sq. ft.
- Rinse roof thoroughly with water.

Power washing effectively removes existing dirt and debris that would adversely affect the bonding of acrylic coatings. Excessively soiled surfaces, rust, or scale may require additional cleaning or scrubbing with a stiff-bristle scrub brush.

Complete any major repairs to skylights using compatible products according to skylight manufacturer recommendations prior to coating.

COATING SKYLIGHTS – CONT.

Step 2. A-200 FLASHING GRADE

A-200 is a thixotropic, acrylic, highly flexible sealant, ideal to seal around skylights or transits prior to A-301 application. Can be brushed, rolled or extruded. Standard white color.

- Apply A-200 to the perimeter of each skylight to seal all edges.
- Use a brushing motion perpendicular to the edges to force the A-200 between the edges.
- Apply a heavy bead of A-200 over each fastener head.
- Apply a 3″ band of A-200 at a thickness of not less than 60 wet mils over the top of all seams.

Note: Failure to apply the minimum thickness of 60 wet mils can result in poor performance of the product. The maximum thickness of A-200 applied in one coat is 120 wet mils. Applying A-200 thicker than 120 wet mils could result in surface splitting due to trapped moisture. If thicker build up of product is desired the A-200 should be applied in multiple coats.

Step 3. A-301 SKYLIGHT FINISH

A-301 coats weathered skylight panels. Milky white in pail, it dries to a translucent, flexible film for a watertight seal that allows light to pass through. A-301 offers exceptional durability and UV stability. Apply by brush, roller, or airless sprayer. A-301 is a single component, professional grade acrylic coating.

A-301 coverage rates:

- For 5 yr Limited Material Warranty:
  - Finished coverage rate = 2 gallons per 100 square feet (min.).
  - Mule-Hide recommends 2 coats, applied at a rate of 1 gal. per 100 square feet per coat (16 wet mils per coat).

Note: ***Do not apply A-301 at a coverage rate higher than 2 gal per 100 square feet per coat (32 wet mils)*** *as it can result in surface splitting due to trapped moisture. When applying multiple coats, A-301 should always be applied at a rate of 1 to 1.5 gallons per 100 square feet (16-24 wet mils).* ***The second coat of A-301 should be applied perpendicular to the first coat.***

Do NOT coat a skylight or other translucent panel with the same FINISH coating as applied to the roof as this will make the panel difficult to see. These panels will not support rooftop traffic as they are not load-bearing.

Any questions regarding these applications, please call Mule-Hide Technical Department 1-800-786-1492.

COLD WEATHER APPLICATION TIPS

All of Mule-Hide's Acrylic Coatings are water based products and use evaporation to dry, or cure, to form a weather resistant film. It is very important that each coat application thoroughly dry before additional moisture is added to the material. Water based coatings can fail when moisture from above or below gets into the coating before it dries (cures) completely. If each coat is not thoroughly dry, the water still trapped in the coating will allow moisture from the outside to enter the coating and affect the coating's adhesion to the substrate. The following are some examples where additional moisture can be added to the system:

- Recoating before the first coat has completed dried
- Rain or dew settling on the surface within 4 hours of application
- Applying to a damp or wet surface
- Diluting the coating with water before application

As temperatures fall and humidity rises, drying times increase. Acrylic coatings dry much slower in sixty degree weather than in ninety degree weather. Likewise, acrylic coatings dry much slower in 80% relative humidity than in 50% relative humidity. Direct sunlight is very helpful in drying and gloomy skies will definitely slow drying. The number of drying hours in a day is reduced as the season moves into autumn and winter. Also, the temperature drops much more quickly in those shorter days after the sun sets. Condensation forming on roofs at night (dew) is quite common in cooler weather. The dew on a roof will delay construction until the moisture has completed dried. It may take a few hours for the dew to leave the roof pushing back start times to mid or late morning. If conditions on the roof are unfavorable, wait!

Thicker coats require longer drying times and can lead to moisture problems. Applying a second coat on top of a prior coat that is not thoroughly dry will introduce moisture into the system and possibly affect the bond to the substrate or between coats.

To help eliminate cool weather application problems, follow these recommendations:

- Coat when the temperatures are above 60° F and unlikely to fall below 50° F during drying time (a minimum of 4 hours after application).
- Coat only on sunny days when the temperature is below 70° F and when no moisture is predicted for 24 hours. In cool weather, stop coating

early in the afternoon (2 pm) to allow for drying.

- Coat over a dry roof only and don't dilute coatings.
- Allow extra drying time for shaded areas on the roof. Coat these areas first if possible or wait for better weather.
- If roof gets wet overnight, do not coat small areas with moisture on surface until sufficiently dry.
- Wait for dry weather forecast. Consider possibility of rain, day and night temperatures, and the dew point forecast.

HOT WEATHER APPLICATION TIPS

To help eliminate hot weather application problems, follow these recommendations:

- Do not coat when roof surface temperatures are above 100° F. High surface temperatures can vaporize the moisture within the coatings causing small blisters and inadequate adhesion.
- Install multiple thinner finish coats to prevent blistering and cracking when temperatures are around 90° F or higher. When encountering high temperatures and high humidity, Mule-Hide strongly recommends applying the finish coatings in multiple thinner coats. For instance, if the specification is a 10-year Metal Roofing System warranty that requires 3 gallons per 100 square feet (applied in two coats at 1-1/2 gallons per coat), in hot weather apply three coats at 1 gallon per 100 square feet to prevent blistering and cracking. Remember to always install multiple finish coats perpendicular to the prior coat.
- Coat in the mornings when it is cooler after any dew or moisture has dried and stop applying coatings in the early afternoon before the hottest part of the day.

INSTALLATION USING ROLLERS OR BRUSHES

When installing coatings using a roller or brush, do not over work the product. Coatings are to be applied with a minimum of working the product to ensure maximum thickness.

RAIN IN FORECAST AFTER APPLICATION

If there is a potential for light rainfall shortly after application, use A-300-FF, Fast Film Finish instead of A-300. Apply with the same application procedures as A-300. Its unique formulation is designed to skin over in just ten to fifteen minutes to decrease chances of an unexpected, light rainfall washing the coating off the roof.

PERIODIC PONDING (LESS THAN 48 HOURS)

A-320 FINISH is used in areas that require a durable elastomeric coating but have minor ponding water - a condition that excludes coating with conventional acrylics. A-320 FINISH may be applied over the top coat of A-300 FINISH in areas where light periodic ponding may occur. A-320 FINISH is formulated to improve resistance to damage caused by periodic ponding. However, A-320 FINISH is not intended as a "cure all" for ponded water situations and prolonged exposure to moisture in ponded areas may be detrimental to A-320 FINISH. It is recommended that the A-320 FINISH be applied several feet in all directions beyond the extent of the ponded area. A-320 FINISH is to be used as a top coat over the last coat of A-300 only. Do not substitute A-320 FINISH for the last coat of A-300.

NOTE: All ponding must evaporate within 48 hours to maintain the material warranty. Areas where ponded water exceeds 48 hours may require the installation of new drains to provide proper drainage or tapered insulation and new, compatible roofing materials to create positive drainage to the existing drain system. NRCA guidelines for ponding water state, "If the ponding condition cannot be eliminated, perform more frequent inspections to monitor and maintain the membrane surface affected by the ponding condition. Implement permanent solutions at the time of reroofing."

MAKING REPAIRS ON MULE-HIDE COATINGS

Repairs are easy. Simply clean the area thoroughly to be coated, then apply new product. Mule-Hide Acrylic Coatings are water based which means no expensive solvents to thin product or clean equipment.

ACCESSORIES

Seal-Fast® Fabric Tape is a non-butyl synthetic rubber and resin adhesive tape, which remains flexible even in cold temperatures. The fabric facer is designed to be coated to match the surrounding roofing surface. Seal-Fast® Fabric Tape must be coated. Seal-Fast® Fabric Tape may be used on metal roofs to strip in side laps, end laps, and other penetrations prior to the application of the Mule-Hide Elastomeric Acrylic Coating System. It will adhere to wood, glass, plastics, concrete and metals. This product may be used to repair gutter seams, chimney flashings, metal roofs on mobile homes and transport vehicles, and leaking ductwork. Seal-Fast® Fabric Tape makes a permanent watertight seal. Seal-Fast® Fabric Tape must be coated. First power wash with **115 CLEANER**, repair holes, damaged areas, and remove old caulk. Then center **SEAL-FAST TAPE** over area cutting to size, peel release paper, adhere the tape over problem area, and roll securely into place with a 2" steel or nylon roller.

FAST CAPS® seal fasteners on metal roofs quickly and easily. Instant watertight seal prevents leaks, rust, and fastener movement. These aluminum-faced conforming disks consist of a heavy modified asphalt base, reinforced with high-density polymer films for tear strength. First power wash with **115 CLEANER**, repair holes, damaged areas, and remove old caulk. Peel release paper and center **FAST-CAP** over problem fastener. Complete application by centering securing tool (included with each package), and push/twist to create a tight seal.

IMPORTANT NOTES

(Details and Information subject to change):

When applying coatings over an existing roof under warranty, the building owner should check with existing roofing system manufacturer, as this coating application may void warranty. In all cases, the existing roofing system must be in sound condition. Mule-Hide is NOT responsible for any defects in the existing roofing system. The information herein should not be considered all-inclusive and should always be accompanied by good application practices. The applicator has sole responsibility for the quality of application of the coating system. Mule-Hide requires proper surface preparation of the existing roofing system. To repair blisters, splits, and other surface defects, Mule-Hide recommends that they be repaired in accordance with the published NRCA Repair Manual for Low-Slope Roofing Systems guidelines prior to application of Mule-Hide Elastomeric Coatings.

Energy savings from the installation of an ENERGY STAR® Roof Product are climate specific and may vary significantly from building to building. The greatest savings will occur in buildings located in hot and sunny climates that have a high roof surface to building volume ratio, and lower levels of attic insulation. For more information about the energy savings you can get from installing an ENERGY STAR® Roof Product on your building contact your roof product manufacturer, roofing applicator, or call 1-888-STAR-YES (1-888-782-7937)

Questions?

Go to www.mulehide.com or give us a call at 1-800-786-1492
Ask to speak with the Mule-Hide Technical Department.

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IMPORTANT NOTES *(Details and Information Subject to Change)*

When applying coatings over an existing roof under warranty, the building owner should check with the existing roof system manufacturer, as this coating application may void a warranty. **In all cases, the existing roof system must be in sound condition prior to coating. Mule-Hide is not responsible for any defect(s) in the existing roof system. Mule-Hide requires proper surface preparation of the existing roof system.** Blisters, splits, and other surface defects, should be repaired in accordance with the published NRCA Repair Manual for Low-Slope Roofing Systems guidelines prior to application of Mule-Hide Elastomeric Coatings. The applicator has the sole responsibility in addressing deficiencies with the existing roof system, selection of appropriate products and the quality of application of the coating system. The information herein should not be considered all-inclusive and should always be accompanied by a review of the Mule-Hide specifications and guidelines and good application practices.

Cool temperatures and high humidity retard curing. Do not apply Elastomeric Acrylic Coatings if weather conditions will not permit complete cure. Mule-Hide Coatings are NOT intended for use over graveled surfaces (Spudded Roofs are also NOT acceptable.) Refer to Mule-Hide Elastomeric Acrylic Coatings Application Handbook for details prior to application.

Mule-Hide recommends ADHESION TESTS PRIOR TO COATING to ensure adhesion and compatibility between the coating and the substrate. Mule-Hide also RECOMMENDS a two (2)-coat application. If finished coverage rates exceed two (2) gallons per square, 2-coat applications are REQUIRED. Product blisters may occur if coatings are applied too thick in high temperatures.

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The information herein should not be considered all-inclusive and should always be accompanied by a review of the Mule-Hide specifications and guidelines and good application practices.

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Visit the Mule-Hide website at www.mulehide.com prior to any installation for updated technical specifications and details.

Special Solutions Support
1-800-786-1492
www.mulehide.com

"The name trusted in roofing since 1906"

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