# **10 or 15 Year Warranty Design Summary**

"The name trusted in roofing since 1906"

## **EPDM – Fully Adhered**



Revision Date: April 30, 2019

All products specified for this roofing system must be manufactured or approved by Mule-Hide Products Co. This criteria is limited to buildings of 100' in height or less.

#### Membrane / Adhesive Type / Other

- 1. 0.045" thick Mule-Hide EPDM: Standard Black, or Reinforced Black Membranes.
- 2. 0.060" thick Mule-Hide EPDM: Standard Black, White-on-Black, or Reinforced Black Membranes.
- 3. Mule-Hide EPDM Bonding Adhesive, Low-VOC Bonding Adhesive, EPDM X-23, AeroWEB, Aqua Base 120 or Acrylic Water Based Bonding Adhesive
- 4. Field seams: 3" In-Seam Tape & Primer (10 or 15 year warranty)
- 5. Field seams: Max 10-Year Warranty Splice Adhesive with Membrane Cleaner/Tape Primer
- 6. All 'T' joints overlaid with EPDM uncured flashing tape.

Standard Roof Deck (4)	Insulation Fastener (1)	Insulation Plate	
Steel (22 gauge or heavier)	Mule-Hide DP (#12)	Mule-Hide 3" Metal Stress Plates	
Structural Concrete (3,000 psi)	Mule-Hide HDP (#14) (2)	Mule-Hide 3" Metal Stress Plates	
Plywood (Min 15/32" thick)	Mule-Hide DP (#12)	Mule-Hide 3" Metal Stress Plates	
Wood Plank (Min 1-1/2" thick)	Mule-Hide DP (#12)	Mule-Hide 3" Metal Stress Plates	
Fibrous Cement & Gypsum (2)(3)	TL Fasteners by Tru-Fast	3" Galvalume Insulation Plate by Tru-Fast	

#### Deck Type / Typical Fastener - Refer to Specifications for minimum pullout criteria.

Notes:

- 1. Heavier gauge fasteners may be required to meet Factory Mutual or code requirements.
- 2. Other fasteners may be considered, submit request to Mule-Hide prior to bidding.
- 3. Pullout testing is required, must exceed 360 pounds with TL Fastener.
- 4. Contact Mule-Hide Technical Department for non-standard roof decks.

#### Slope Requirement/Drainage

- 1. Positive drainage required (no ponding 48 hours after a rain)
- 2. 1/4" per horizontal foot preferred
- 3. 1/8" slope with sufficient number of drains and crickets/saddles may be considered

#### **Construction Type**

- 1. New Construction
- 2. Reroof Full tear off of existing roofing down to deck
- 3. Recover Over existing roofing system or existing insulation (all wet materials removed)

#### Insulation/Overlayment - Mechanical Attachment into Standard Roof Decks\*

Insulation Type or Overlay		Fasteners per 4' x 8' board		
		Perimeter	Corner	
Approved Polyisocyanurate - Min 2" thick (top layer)	8	12	16	
Approved Polyisocyanurate - Min 1.5" up to 2" thick	12	18	24	
HD Fiberboard - Min 1/2" thick- Installed over Approved Insulation	16	24	32	
Dens Deck Prime - Min 1/4" thick - Installed over Approved Insulation	12	18	24	
OSB - Min 7/16" thick - Installed over Approved Insulation	17	25	32	
Approved OSB/Polyisocyanurate Composite - Min 2" thick		25	32	

#### \*NOTES:

- 1. Thicknesses stated are for single layer of material.
- 2. Consult Specification Manual for list of approved insulations for use under overlayment.

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#### \*NOTES: (continued)

- 3. Polyisocyanurate less than 1.5" in thickness requires approved overlayment.
- 4. Insulation fastening density shall not be less than 1 per 2 square feet on fibrous cement and gypsum decks.
- 5. Certain codes may require additional fastening requirements.
- 6. Mule-Hide defines perimeter areas as a minimum of 8 feet. Corners areas are the intersections of the perimeter areas.
- 7. Factory Mutual defines perimeter areas as the lesser of 0.1 times the building width or 0.4 times the building height. Corners areas are the intersections of the perimeter areas.
- 8. System warranties require the use of Mule-Hide labeled components, products supplied by Mule-Hide or approved in writing by Mule-Hide prior to the start of the project.

#### Insulation/Overlayment - Adhesive Attachment

1. **Mule-Hide Helix**<sup>®</sup> **Max Low-Rise Adhesives**. Refer to the appropriate specifications and Helix<sup>®</sup> Max Product Data Sheet for acceptable insulations, substrates, and bead spacing.

#### **Metal Accessories**

- 1. All Metal copings, gravel stops, fascia, and drip aprons must be installed according to Mule-Hide approved details.
- 2. Conventional metal edge details that require flanges to be 'stripped in' may use TPO Cover Tape or White EPDM Cured Cover Tape (Mate-Line Tape).
- 3. All Metal Scuppers must have welded (soldered) seams.
- 4. Metal accessories provided by Mule-Hide will be included in System warranties.

#### **Other Requirements**

- 1. No 'As-Built' projects. All projects are to be reviewed and approved prior to installation.
- 2. Shop drawings must include all pertinent details.
- 3. Contact Mule-Hide Technical Department for specific code requirements such as Florida NOA, Factory Mutual (FM) or Underwriters Laboratory (UL).

#### NOTES:

- 1. This is a summary of the Mule-Hide EPDM Fully Adhered System Specification, as written in the Mule-Hide EPDM Specification Manual. Refer to Mule-Hide EPDM Specification Manual for complete specification and details.
- 2. The information contained in this document is general information. Requirements may be different for each specific job based on the conditions of each building. Always contact Mule-Hide Technical Department to review the specific job conditions prior to bidding the project.