



**MULE-HIDE PRODUCTS CO., INC**  
**10 or 15 Year Warranty Design Summary**  
**With Standard 55-MPH Wind Speed Coverage**  
**For Fully Adhered TPO**

**TPO Systems**

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" or 0.060" or 0.080" thick Mule-Hide Reinforced TPO
2. Mule-Hide TPO Bonding Adhesive - Solvent Based

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

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 HD-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

**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 other roof decks or 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 - with full tear-off
3. Recover - all wet materials removed

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

Insulation Type or Overlay	Fasteners per 4' x 8' board		
	Field	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	17	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.
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.

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6. 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.

**Insulation/Overlayment - Adhesive Attachment**

1. Insta-Stik by Dow Chemical Company - Warranty Application must include a copy of the manufacturers letter of acceptance for the project, including application rates for that specific project. Other Manufactures may be considered, submit prior to bidding.

**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 be overlaid with TPO Cover Tape.
3. All Metal Scuppers must have welded (soldered) seams.

**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 TPO Fully Adhered System Specification, as written in the Mule-Hide TPO Specification Manual. Refer to Mule-Hide TPO 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.**