



# POLY ISO 1-HD™ Plus

April 2021

## PRODUCT DESCRIPTION

Mule-Hide Poly ISO 1-HD Plus is an FM-approved, ½” thick high density polyisocyanurate insulation board that was specifically designed for use as a cover board in fully adhered systems. Suitable for both re-roofing and new construction applications, this product is manufactured on-line using premium-performance coated glass facers (CGF). Poly ISO HD-1 Plus has an R-value of 2.5, which is significantly higher than roof cover boards made with other materials such as wood fiber or gypsum.



## BENEFITS AND SUPPLEMENTAL STATEMENTS

- Industry leading 8 fasteners per 4' x 8' board needed to meet Factory Mutual (FM) 1-90
- High-density insulating cover board
- Lightweight (13 lbs per 4' x 8' panel), easy to cut, handle and install
- Exceptional protection against hail, rooftop traffic, mold, and moisture
- High-density formulation achieves FM severe hail rating (SH)
- 5 times higher R-value than gypsum cover boards
- 2 times higher R-value than wood fiber boards
- 1/5 the weight of gypsum cover boards
- Compatible with all Mule-Hide single-ply roofing systems (except ballast)
- Coated glass facer provides strong bond for adhered roofing applications

## TYPICAL PHYSICAL PROPERTIES

| Property              | Test Method | Typical Results*              |
|-----------------------|-------------|-------------------------------|
| Dimensional Stability | ASTM D-2126 | < 0.5% Linear Change (7 days) |
| Compressive Strength  | ASTM D-1621 | Grade 1 (109 psi max)         |
| Water Absorption      | ASTM D-209  | < 1% By Volume                |
| Service Temperature   |             | 260°F or less                 |
| R-Value @ ½” (13 mm)  | ASTM C-518  | 2.5                           |
| Weight                | ---         | 13 lbs / 4' x 8' – 0.406 psf  |

\*The physical properties above are presented as typical average values as determined by accepted ASTM test methods and are subject to change. All information can be confirmed by contacting Mule-Hide Products.  
 \*Meets the requirements of the IBC code. For specific Flame Spread or Smoke Developed Ratings, please contact the Mule-Hide Technical Department

## PACKAGING

|              |                      |         |
|--------------|----------------------|---------|
| 4'x8' Panels | 48 pieces per bundle | 624 lbs |
| 4'x4' Panels | 96 pieces per bundle | 624 lbs |

Factory applied packaging is only intended for protection during transit. When stored outside or at the job site, the insulation must be stored at least 4" above ground level and completely covered with a weatherproof covering such as a tarpaulin. **Warning - Do Not Leave Exposed:** Product must be protected from open flame and kept dry at all times. Install only as much insulation that can be covered the same day by the roofing system.

## CODE APPROVALS/COMPLIANCE

- ASTM C1289, Type II, Class 4, Grade 1 (109 psi max.)
- International Building Code (IBC) Section 2603
- UL Standard 790, 263 and 1256: Component of Class A Roof
- Systems (refer to UL Roof Materials' system directory)

## Product Data Sheet

# MULE-HIDE POLY ISO 1-HD™ Plus

- FM Standards 4450/4470: Class 1 approval for steel roof-deck constructions (refer to FM RoofNav)
- Third-party certification with PIMA Quality Mark for Long-Term
- Thermal Resistance (LTTR) values
- CAN/ULC S704, Type 3, Class 2
- Florida Building Code Approval

## LEED INFORMATION

| LEED® Information              |   |
|--------------------------------|---|
| Pre-consumer Recycled Content  | 9%  |
| Post-consumer Recycled Content | 0%  |
| Manufacturing Locations        | Smithfield, PA; Franklin Park, IL; Tooele, UT |

## INSTALLATION INSTRUCTIONS

### General

All boards must be tightly fitted together to prevent movement, separation or damage during the installation of the membrane system. All gaps greater than 1/4" must be filled.

**Mechanically Attached Single-Ply Membrane Systems** - Mule-Hide Poly ISO 1-HD should be attached with Mule-Hide fasteners and insulation plates (or FM Approved fasteners) using a minimum of 4 fasteners per 4'x 4' board (1 fastener per 4 square feet) and a minimum of 6 fasteners per 4'x 8' board (1 fastener per 5.33 square feet). Refer to the Mule-Hide Insulation Fastening Guidelines for proper fastener placement.

**Fully Adhered Single-Ply Membrane Systems** - Mule-Hide Poly ISO 1-HD should be attached using a minimum of 8 fasteners per 4'x 4' board (1 fastener per 2 square feet) and a minimum of 16 fasteners per 4'x 8' board (1 fastener per 2 square feet). Refer to the Mule-Hide Insulation Fastening Guidelines for proper fastener placement.

**Adhesive Attachment** – Helix Max Low-Rise Adhesive may be used to attach the Mule-Hide Poly ISO 1-HD to approved substrates. Only 4'x 4' boards may be used. Contact Mule-Hide's Technical Department for specific requirements and procedures.

## PROTECTION & SAFETY

Mule-Hide maintains Safety Data Sheets on all of its non-exempt products. Safety Data Sheets contain health and safety information for your development of appropriate product handling procedures to protect your employees and customers. Mule-Hide's Safety Data Sheets should be read and understood by all of your supervisory personnel and employees before using Mule-Hide products in your facilities.

## ADDITIONAL INFORMATION

The information given on this PDS is subject to change without notice. Always check the Mule-Hide website at [www.mulehide.com](http://www.mulehide.com) for the latest information, changes and updates or contact Mule-Hide Products Company at 800-786-1492.

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