



Product Data Sheet

POLY ISO 1-HD™

PRODUCT DESCRIPTION

Revision Date: September 2023

Mule-Hide Poly ISO 1-HD is ½" thick, high density polyisocyanurate insulation board that was specifically designed for use as a cover board and is compatible with Single-Ply roofing systems (ballasted, mechanically attached and fully adhered) and Modified Bitumen Roofing Systems. Suitable for use with approved fasteners and plates, and low-rise adhesive. This product consists of a closed-cell polyiso foam and a coated glass facer on both top and bottom surfaces. In addition to providing a durable underlayment for roofing membranes, Poly ISO HD-1 has an R-value of 2.5 which is significantly higher than that of other cover board products such as wood fiber or gypsum.



BENEFITS AND SUPPLEMENTAL STATEMENTS

- Manufactured with NexGen Chemistry: Contains no CFCs, HFC's, HCFCs, is Zero ODP, EPA Compliant and has virtually no GWP
- Manufactured with a dark and light side that allows for faster or slower adhesive flash-off times in fully adhered applications
- 4 lbs/pcf high density foam core provides enhances physical properties
- Lightweight (11 lbs per 4' x 8' panel), easy to cut, handle and install
- Sturdy constitution and durability protects the roof system from effects of hail, roof top construction traffic and other potentially damaging elements
- Passed (10) ASTM D 3273 Resistance to Mold Test
- Hail Rating: SH-1

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
Flame Spread*	ASTM E-84	< 75
Smoke Developed*	ASTM E-84	< 450
Service Temperature		260°F or less
Recycled Content	---	9% - pre-consumer
R-Value @ ½" (13 mm)	ASTM C-518	2.5
Weight	---	11 lbs / 4' x 8' – 0.343 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	495 lbs
4'x4' Panels	96 pieces	528 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 C 1289 Type II, Class 4, Grade 1 (109 psi max)
- UL Classified 790 – consult UL Product iQ for specific assemblies
- ASTM E108
- FM Approved 1-90 – consult RoofNAV for specific assemblies
- Miami Dade County Product Control Approval
- State of Florida Product Approval

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.

Ballasted Single-Ply Membrane Systems - Mule-Hide Poly ISO 1-HD does not require attachment to the deck in this system. Sufficient amounts of ballast must be applied to prevent membrane and insulation movement. Refer to the Mule-Hide Manual and FM Loss Prevention Data Sheet 1-29 for information regarding ballasting guidelines.

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 Manual 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 Manual for proper fastener placement.

Attachment - In some instances insulation 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 for the latest information, changes and updates or contact Mule-Hide Products Company at 800-786-1492.

DISCLAIMER

The statements provided concerning the material shown are intended as a guide for material usage and are 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 authorize anyone to make any warranty of merchantability or fitness for any particular purpose or any other warranty, guarantee or representation, expressed or implied, concerning this material. This product may be eligible for a Mule-Hide warranty, please check the Mule-Hide website at www.mulehide.com or contact Mule-Hide directly at 800-786-1492 for details. Buyer and user accept the product under these conditions and assume the risk of any failure, any injury 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 alleged failure before repairs are made.