

PRODUCT DATA SHEET

MULE-HIDE POLY ISO 1 ROOF INSULATION

PRODUCT DESCRIPTION

The Mule-Hide Poly ISO 1 polyisocyanurate insulation (flat or tapered) is a closed-cell polyisocyanurate foam core laminated to heavy, black (non-asphaltic) glass fiber reinforced felt facers. The Mule-Hide Poly ISO 1 is compatible with all Mule-Hide membranes and accessories. The Mule-Hide Poly ISO 1 insulation board may be used for ballasted, mechanically attached and fully adhered single-ply roofing systems. The Poly ISO 1 insulation board may be installed over approved decks and substrates on new construction, tearoffs, and recover (retrofit) projects. The Poly ISO 1 insulation board may be used in UL Class A and FM Class 1 assemblies. Available in 20 and 25 psi formulas.

SPECIFICATIONS

Property	Test Method	Typical Results
Dimensional Stability	ASTM D-2126	Less than 2% Linear Change
Compressive Strength	ASTM D-1621	20 PSI (Grade 2) 25 PSI (Grade3)
Water Absorption	ASTM D-209	Less than 1% By Volume
Moisture Vapor Transmission	ASTM E-96	Less than One (1) Perm
Product Density	ASTM D-1622	Nominal 2.0 lbs per cubic foot
Flame Spread (foam core)	ASTM E-84	Less than 50**
Service Temperature	---	-100°F to 250°F Max

*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.

**The numerical ratings are determined by ASTM Test Method E-84 are not intended to reflect hazards presented by this or any other material under actual fire conditions.

Standard Thickness, Conditioned Thermal Values*, and Span Data

Nominal Thickness** (Inches)	(mm)	<u>Poly ISO 1</u>		Metal Deck Max. Flute Spanability (Inches)
		LTTR R-Value	C-Value	
1.0	25.4	6.0	.167	2 ⁵ / ₈
1.5	38.1	9.0	.111	4 ³ / ₈
1.8	45.7	10.9	.092	4 ³ / ₈
2.0	50.8	12.1	.083	4 ³ / ₈
2.5	63.5	15.3	.065	4 ³ / ₈
2.7	68.6	16.6	.060	4 ³ / ₈
3.0	76.2	18.5	.054	4 ³ / ₈
4.0	101.6	25.0	.040	4 ³ / ₈

*Conditioned Thermal Values were determined by ASTM C518 at 75°F mean temperature. All test specimens were conditioned in accordance with procedures outlined in PIMA Bulletin No. 101 and RIC/TIMA Bulletin No. 281-1.

**Other thicknesses available upon special request. 1" + 25.4mm.

PACKAGING AND STORAGE

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:** This product will burn if exposed to an ignition source of sufficient heat and intensity, or an open flame.

MULE-HIDE PRODUCTS CO., INC.

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CODES AND COMPLIANCES

Poly ISO 1 complies with the requirements of the following specifications, test and code requirements when properly installed.

- * Federal Specification HH-I-1972/GEN and HH-I-1972/2, Class 1
- * ASTM C 1289-05a, Type II, Class 1, Grade 2 (20 psi), Grade 3 (25 psi)
- * FM Standard 4450/4470 Approval, Class 1
- * UL Standard 1256 Classification
- * UL Standard 790 Classification
- * UL Standard 263 Fire Resistance Classification

INSTALLATION INSTRUCTIONS

Ballasted Single-Ply Membrane Systems - Mule-Hide Poly ISO 1 does not require attachment to the deck in this system. 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. After the membrane is installed, 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 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 should be installed with the perforated side down. The insulation 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.

In some instances hot steep asphalt may be used to attach the Mule-Hide Poly ISO 1 to approved concrete decks. Only 4'x 4' boards may be used. Contact Mule-Hide's Technical Department for specific requirements and procedures.

Mule-Hide Poly ISO 1 is manufactured with NexGen Chemistry™ – Zero ODP, CFC Free, EPA Compliant.

DISCLAIMER

The statements provided concerning the material shown are intended as a guide for material usage and are believed to be true and accurate. 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 particular purpose or any other warranty, guarantee or representation, expressed or implied, concerning this material except that it conforms to Mule-Hide's 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.

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