



Product Data Sheet

MULE-HIDE WHITE-ON- BLACK EPDM MEMBRANE (60-MIL AND 90MIL)

PRODUCT DESCRIPTION

Mule-Hide White-on-Black EPDM membranes (60-mil and 90-mil) are high performance non-reinforced products that stand up to tearing, impacts, punctures and normal roof traffic. The elastomeric properties of the EPDM sheet compensates for thermal shock and building movement. EPDM membranes provide excellent resistance to ozone and aging. These membranes are manufactured in accordance with the guidelines established by the RMA (Rubber Manufacturers Association) and meet or exceed ASTM Standard Specification D 4637, Type I. Mule-Hide White-on-Black EPDM membrane is available with pre-applied in-seam tape. See Packaging section below for available sizes.



BASIC USES

Our White-on-Black 60-mil and 90-mil EPDM membranes are used primarily in fully adhered roofing systems on new construction, reroofing and recover (retrofit) applications. The 60-mil membrane may also be used as flexible membrane flashings for walls, curbs, etc, when installing an EPDM membrane roofing systems. The system must be installed over acceptable roof insulation or other suitable substrate. See our Mule-Hide Specifications Manual for complete specifications and details.

SPECIFICATIONS

Physical Properties*	Test Method	SPEC (Pass)	Typical Values
Tolerance on Nominal Thickness, %	ASTM D 412	± 10	± 10
Weight, lbm/ft ² (kg/m ²)			
60-mil			0.37 (1.8)
90-mil			0.60 (2.9)
Tensile Strength, min, psi (Mpa)	ASTM D 412	1305 (9)	1465 (10.1)
Elongation, Ultimate, min, %	ASTM D 412	300	540
Tear Strength, min, lbf/in (kN/m)	ASTM D 624 (Die C)	150 (26.3)	187 (32.7)
Factory Seam Strength, min. (modified)	ASTM D 816	Membrane Rupture	Membrane Rupture
Resistance to Heat Aging**	ASTM D 573		
Properties after 1 weeks @ 240°F(116°C)			
Tensile Strength, min, psi (MPa)	ASTM D 412	1205 (8.3)	1345 (9.3)
Elongation, Ultimate, min, %	ASTM D 412	200	280
Tear Resistance, min, lbf/in (kN/m)	ASTM D 624	125 (21.9)	185 (32.4)
Linear Dimensional Change, max, %	ASTM D 1204	± 1.0	-0.2
Ozone Resistance**			
Conditions after exposure to 100 pphm Ozone in air for 168 hrs @ 104°F (40°C) Specimen is at 50% strain	ASTM D 1149	No Cracks	No Cracks
Brittleness Temp., max, deg. F (deg.C)**	ASTM D 746	-49 (-45)	-67 (-55)
Resistance to Water Absorption**			
After 7 days immersion @ 158°F (70°C), Change in mass, max, %	ASTM D 471	+8, -2	+3.3
Water Vapor Permeability**			
max, perm-mils	ASTM E 96 (Proc. B or BW)	0.10	0.02
Flexibility / Torsion DMA	ASTM D5279-08	N/A	55 MPa @ -40°F
Resistance to Outdoor (Ultraviolet) Weathering*			
Xenon-Arc, total radiant exposure at 0.70 W/m ² Irradiance, 176°F (80°C) black panel temperature	ASTM G155	No Cracks No Cracking 7,560 kJ/m ² 3,000 hrs	No Cracks No Cracking 25,200 kJ/m ² 10,000 hrs
At 0.35 W/m ² irradiance, 80°C black panel temperature		6,000 hrs	20,000 hrs
Fungi Resistance	ASTM G21	N/A	0 (no growth)

*Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification or specification range for any particular property of this product.

**Not a Quality Control Test due to the time required for the test or the complexity of the test. However, all tests run on a statistical basis to ensure overall long-term performance of the sheeting.

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LEED Information	
Pre-consumer Recycled Content	0%
Post-consumer Recycled Content	0%
Manufacturing Location	Carlisle, PA
Solar Reflectance Index (SRI)	94

PACKAGING

Roll sizes for Mule-Hide **60-mil** White-on-Black EPDM are 10' x 50', 10' x 100', 16.5' x 100', 20' x 50' and 20' x 100'.
Roll sizes for Mule-Hide **90-mil** White-on-Black EPDM are 10' x 50' and 10' x 100'

Roll sizes for pre-taped White-on-Black EPDM membranes are as follows:

Product	Packaging	Roll Size	Tape Width
.060 White-on-Black, Pre-Taped	2 - Pack	10' x 100'	3"
.060 White-on-Black, Pre-Taped, Wide Roll	1 - Pack	20' x 100'	3"
.090 White-on-Black, Pre-Taped	2 - Pack	10' x 100'	6"

BENEFITS & SUPPLEMENTAL STATEMENTS

- Can be installed over a variety of roof decks
- Outstanding weatherability
- Sheets can be pre-taped for labor savings and consistent seam placement
- Requires no special equipment to install
- Available as a lightweight system
- Full line of pre-taped accessories available

CODE APPROVALS/COMPLIANCE

A variety of Factory Mutual Ratings, Underwriters Laboratories Classifications and Miami-Dade Approvals are available. Contact Mule-Hide Warranty Department for additional information. Meets or exceeds requirements of ASTM D 4637, Type I for non-reinforced EPDM single-ply roofing membranes.

INSTALLATION INSTRUCTIONS

- 1) Approved insulation shall be attached to the roof deck with an approved insulation adhesive or approved fasteners and plates. Install insulation with its largest dimension perpendicular to the direction of the membrane seams where possible.
- 2) Fully Adhered Roofing System
 - a) The membrane is required to be mechanically attached at the base of all vertical surfaces, roof edges, and angle changes.
 - b) The field of the roof is fully adhered to the substrate with Mule-Hide membrane adhesive.
- 4) Field seams are made with seam tape and tape primer. Pre-taped seams are available for faster installation.
- 5) All details will be done in accordance with Mule-Hide details.
- 6) On projects where a Mule-Hide Standard or Premium Warranty is requested, an authorized Mule-Hide representative shall inspect all completed work. This is only a brief summary and not the complete specification. The Mule-Hide Specifications, Details, Technical Bulletins, and associated documents should be thoroughly reviewed prior to starting any project. Contact Mule-Hide Products for additional information.

PRECAUTIONS

- Surfaces may be slippery when wet, or due to frost and ice build-up. Exercise caution to prevent falls.
- Mule-Hide White-on-Black EPDM membranes are highly reflective to sunlight. Workers should dress appropriately, wear sunscreen, and wear sunglasses that filter out UV light.
- Exercise care when working near roof edge. Roof edges may not be visible when surrounding area is covered with snow.

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- Store Mule-Hide membrane in original wrappings in a cool, shaded area. Cover with light-colored, breathable, waterproof tarpaulins

STORAGE & HANDLING

- Use proper stacking procedures to ensure sufficient stability of the materials.
- Surfaces may be slippery when wet, or due to frost and ice build-up. Exercise caution to prevent falls.
- Exercise care when working near edge of roof.
- Store Mule-Hide membrane in original wrappings in a cool, shaded area. Cover with light colored, breathable, waterproof tarpaulins.
- Pre-Taped membranes should not be exposed to prolonged jobsite storage temperatures in excess of 90°F (32°C), otherwise the shelf life of the Pre-Tape may be affected.
- When using pre-taped membranes in warm, sunny weather, shade the tape end of the rolls until ready to use.
- Mule-Hide Pre-Tape has a shelf life of one year.

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.

SUPPLEMENTAL APPROVALS, STATEMENTS AND CHARACTERISTICS

RADIATIVE PROPERTIES for CRRC and LEED		
DESCRIPTION	TEST METHOD	WHITE EPDM
CRRC initial solar reflectance	ASTM C1549	0.76
CRRC solar reflectance after 3 years	ASTM C1549 (uncleaned)	0.64
CRRC initial thermal emittance	ASTM C1371	0.90
CRRC thermal emittance after 3 years	ASTM C1371 (uncleaned)	0.87
SRI (Solar Reflectance Index)	ASTM E1980 (initial) 3 year aged	94 77
LEED™ thermal emittance	ASTM E408	0.91

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.