

PRODUCT DATA SHEET

MULE-HIDE WHITE-ON-BLACK EPDM MEMBRANE

PRODUCT DESCRIPTION

Mule-Hide White-on-Black EPDM is a high performance non-reinforced membrane that stands up to tearing, impacts, punctures and normal roof traffic. The elastomeric properties of the EPDM membrane compensate for thermal shock and building movement. EPDM membranes provide excellent resistance to ozone and aging. The membrane is manufactured in accordance with the guidelines established by the RMA (Rubber Manufacturers Association) and meets or exceeds the ASTM Standard Specification D 4637.

BASIC USES

Can be installed as a new elastomeric roofing membrane in Fully Adhered roofing systems.

TYPICAL PROPERTIES AND CHARACTERISTICS

Mule-Hide .045 Inch Thick White-on-Black EPDM Membrane (Modular Building Construction Only).

Physical Properties	Test Method	SPEC (Pass)	Typical Values
Tolerance on Nominal Thickness, %	ASTM D 412	± 10	± 10
Weight, lbf/ft ² (kg/m ²)			0..29 (1.43)
Tensile Strength, min, psi(Mpa)	ASTM D 412	1305 (9)	1685 (11.6)
Elongation, Ultimate, min, %	ASTM D 412	350	420
Tear Strength, min, lbf/in (kN/m)	ASTM D 624 (Die C)	150 (26.3)	200 (35.0)
Factory Seam Strength, min.	ASTM D 816 Modified	Membrane Rupture	Membrane Rupture
Resistance to Heat Aging* Properties after 1 weeks @ 240°F(116°C)	ASTM D 573		
Tensile Strength, min, psi(MPa)	ASTM D 412	1205 (8.3)	1550 (10.7)
Elongation, Ultimate, min, %	ASTM D 412	200	250
Tear Resistance, min,lbf/in(kN/m)	ASTM D 624	125 (21.9)	185 (32.4)
Linear Dimensional Change, max, %	ASTM D 1204	± 2.0	-0.5
Ozone Resistance* Conditions after exposure 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	+3.6
Water Vapor Permeability* max, perm-mils	ASTM E 96 (Proc. B or BW)	0.10	0.05
Resistance to Outdoor (Ultraviolet) Weathering Xenon-Arc, 4000 hrs. exposure, 176°F (80°C) black panel temperature	ASTM D 4637 Conditions	No Cracks No Cracking	No Cracks No Cracking
*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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MULE-HIDE PRODUCTS CO., INC.

P.O. Box 1057, Beloit, WI 53512-1057 • 608/365-3111 • Fax: 608/365-7852

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RADIATIVE PROPERTIES

For Energy Star, Cool Roof Rating Council (CRRC), and LEED.

	TEST METHOD	SURE-WHITE EPDM
ENERGY STAR initial solar reflectance	Solar Spectrum Reflectometer	0.84
ENERGY STAR solar reflectance after 3 years	Solar Spectrum Reflectometer (after cleaning)	0.80
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
LEED thermal emittance	ASTM E408	0.91
SRI (Solar Reflectance Index)	ASTM E1980	105

An ENERGY STAR qualified low slope roof product must have an initial solar reflectance of at least 0.65 and a 3-year aged solar reflectance of at least 0.50.

The Cool Roof Rating Council (CRRC) does not specify minimums for reflectance or emittance but they do require specific protocols for testing and reporting. Cleaning of the aged roof surface is **not** permitted for determination of radiative properties after 3 years.

LEED AND LEED CREDIT POINTS:

A LEED "point" may be earned if a roof material is ENERGY STAR qualified **and** has a thermal emittance of at least 0.90 as determined by ASTM E408.

SYSTEM BENEFITS

- Quality system
- Ease of Installation
- Energy Saving
- Lightweight
- Can eliminate tear-off of existing roof if appropriate.

SIZES

Available roll sizes for Mule-Hide .045" White-on-Black EPDM membrane are 11', 13', 15', & 17' widths, and in lengths of 305'.

SYSTEM ACCESSORIES

A full line of accessories is available from Mule-Hide including flashings, membranes, bonding adhesives, splice adhesives, lap sealant, seam cleaner, water cut-off mastic, pourable sealer, pre-formed pipe boots, walk pads, termination bar, fasteners and plates.

CODE APPROVALS

The White-on-Black EPDM membrane may be provided with UL and FM labels. Both UL and FM classified assemblies are available (ex: FM 1-60 and 1-90, UL Class A, B and C).

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INSTALLATION INSTRUCTIONS

Install the Mule-Hide White-on-Black EPDM membrane in accordance with the appropriate current printed Mule-Hide specification. Carefully review and follow the installation instructions in the Mule-Hide Specifications Manual. All flashing details are to be installed in accordance with Mule-Hide's current published details.

CAUTIONS AND WARNINGS

1. Sunglasses which filter out UV light are strongly recommended when installing or working on white membranes since the white surface intensifies sunlight through reflection.
2. White surfaces reflect heat and may promote slippery conditions due to frost and ice build-up. Exercise extreme caution during cold or wet conditions to prevent falls. Moisture on the surface of white membranes may be harder to detect and will dry slower than dark membranes.

TECHNICAL SERVICES

Contact Mule-Hide Products Co., Inc. at 608/365-3111 for additional information.

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.

Energy Star is a registered trademark owned by the US Government
LEED is a trademark of the US Green Building Council