



NEMO|etc.

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ENGINEER

EVALUATE

TEST

CONSULT

P.E. EVALUATION REPORT (PEER)

Mule-Hide Products Co., Inc.

1195 Prince Hall Drive, Suite A
Beloit, WI 53511
(608) 365-3111

PEER-MHPLYG-003.A.R1

FL41936-R1

Date of Issuance: 02/13/2023

Revision 1: 10/03/2023

SCOPE:

This P.E. Evaluation Report (henceforth 'PEER') is issued under **F.A.C. Rule 61G20-3** and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code. The product described herein has been evaluated for compliance with the **8th Edition (2023) Florida Building Code** [sections noted herein](#).

DESCRIPTION: Mule-Hide Cements, Adhesives and Coatings

LABELING: Labeling shall be in accordance with the requirements of the Accredited Quality Assurance Agency noted herein.

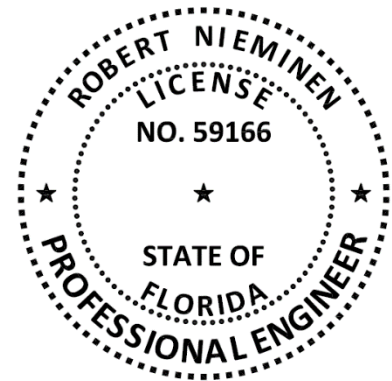
CONTINUED COMPLIANCE: This PEER is valid until such time as the named product(s) changes, the referenced Quality Assurance or production facility location(s) changes, or Code provisions that relate to the product(s) change. Acceptance of our PEERs by the named client constitutes agreement to notify NEMO ETC, LLC of any changes to the product(s), the Quality Assurance or the production facility location(s). NEMO ETC, LLC requires a complete review of its PEER relative to updated Code requirements with each Code Cycle.

ADVERTISEMENT: The Florida Product Approval Number (FL#) preceded by the words "NEMO P.E. Evaluated" may be displayed in advertising literature. If any portion of the PEER is displayed, then it shall be done in its entirety.

INSPECTION: Upon request, a copy of this entire PEER shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This PEER consists of pages 1 through 5.

Prepared by:



CERTIFICATION OF INDEPENDENCE:

1. NEMO ETC, LLC does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products it evaluates.
2. NEMO ETC, LLC is not owned, operated or controlled by any company manufacturing or distributing products it evaluates.
3. Robert Nieminen, P.E. does not have nor will acquire, a financial interest in any company manufacturing or distributing products for which the PEERs are being issued.
4. Robert Nieminen, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.
5. This is a building code evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this PEER, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

ROOFING COMPONENT EVALUATION:

1. SCOPE:

Product Category: Roofing
Sub-Category: Cements – Adhesives - Coatings
Product Approval Method: Method 1, Option D – Codified Material, Evaluation by Engineer
Compliance Statement: Mule-Hide Cements, Adhesives and Coatings, as produced by [Mule-Hide Products Co., Inc.](#), have demonstrated compliance with the following sections of the **8th Edition (2023) Florida Building Code** through testing in accordance with the Standards set forth herein. Compliance is subject to the [Installation Requirements](#) and [Limitations of Use](#) set forth herein.

2. STANDARDS:

SECTION	PROPERTY	STANDARD	YEAR
1507.10.2, 1514.2.3.1, 1517.6.2.4, 1519.6, 1521.6, 1521.14.1, R905.9.2, R905.11.2, TAS 110	Material standard	ASTM D41	2016
1507.10.2, 1509.2 R905.11.2 TAS 110	Material standard	ASTM D1227	2013
1507.10.2, 1509.2 R905.9.2, R905.11.2, TAS 110	Material standard	ASTM D2824	2018
1507.10.2, R905.9.2, R905.11.2, TAS 110	Material standard	ASTM D3019	2017
1507.10.2, 1509.2 R905.9.2, TAS 110	Material standard	ASTM D4479	2018
1507.10.2, R905.9.2, TAS 110	Material standard	ASTM D4586	2018
1507.10.2, 1507.14.3, 1509.2 R905.9.2, R905.11.2, R905.14.3, TAS 110	Material standard	ASTM D6083	2021

3. REFERENCES:

ENTITY	EXAMINATION	REFERENCE	DATE
NEMO	PEER	PEER-PLYG-004.A.R21	08/07/2023
NEMO	Traceability	FBC Cross Listing Form	02/10/2023
UL LLC (QUA9625)	Quality Control	Service Confirmation (AZ, FL)	02/07/2023

4. PRODUCT DESCRIPTION:

TABLE 1: EVALUATED MAINTENANCE COATINGS & ACCESSORIES			
PRODUCT	MATERIAL STANDARD	DESCRIPTION / APPROVED USE	MANUFACTURING
COATINGS:			
102 Fibrated Roof Coating	ASTM D4479, Type I	Asphalt fibered, non-polymer modified protective roof coating	Winter Haven, FL
401 Premium Fibrated Aluminum Roof Coating	ASTM D2824, Type III	Fibered aluminum, reflective roof coating	Winter Haven, FL
406 Standard Fibrated Aluminum Roof Coating	ASTM D2824, Type III	Fibered aluminum, reflective roof coating	Winter Haven, FL
410 Premium Non-Fibrated Aluminum Roof Coating	ASTM D2824, Type I	Non-fibered aluminum, reflective roof coating	Winter Haven, FL
416 Standard Non-Fibrated Aluminum Roof Coating	ASTM D2824, Type I	Non-fibered aluminum, reflective roof coating	Winter Haven, FL
A-300 Finish, A-300 Base	ASTM D6083	Water-based, white or tinted elastomeric acrylic roof coating	Phoenix, AZ Winter Haven, FL
A-320 Finish	ASTM D6083	High tensile, water-based, white or tinted, elastomeric coating.	Phoenix, AZ Winter Haven, FL

TABLE 1: EVALUATED MAINTENANCE COATINGS & ACCESSORIES			
PRODUCT	MATERIAL STANDARD	DESCRIPTION / APPROVED USE	MANUFACTURING
ADHESIVES:			
420 Mod Bit Adhesive-Brush Grade	ASTM D3019, Type III	Cold-applied bonding adhesive for use with modified bitumen membranes	Winter Haven, FL
421 Mod Bit Adhesive-Trowel Grade	ASTM D4586, Type I	A thick, fibered rubberized flashing cement for use with modified bitumen membranes or tile underlayment applications	Winter Haven, FL
CEMENTS AND SURFACING:			
210 Plastic Cement or 211 Plastic Cement	ASTM D4586, Type I	Cold-applied, sealing and repair flashing cement	Winter Haven, FL
221 Wet/Dry Roof Cement	ASTM D4586, D3409	Wet and dry roof cement.	Winter Haven, FL
231 Flashing Cement	ASTM D4586	Trowel-grade, general purpose wet and dry roof cement	Winter Haven, FL
241 Premium Modified Flashing Cement	ASTM D4586, Type I	A thick, fibered rubberized flashing cement for use with modified bitumen membranes or tile underlayment applications	Winter Haven, FL
251 Premium Wet/Dry Elastomeric Flashing Cement	ASTM D4586, D3409	Trowel grade, wet and dry, rubberized flashing cement	Winter Haven, FL
RGA 1 Flashing Cement	ASTM D4586, D3409	Trowel grade, wet and dry, rubberized flashing cement	Winter Haven, FL
PRIMERS:			
121 Asphalt Primer	ASTM D41	General purpose, fast-drying, penetrating asphalt primer used to promote adhesion	Winter Haven, FL
A-125 Metal Roof Primer	N/A	Single component, rust-inhibitive primer to enhance adhesion of elastomeric roof coatings to metal surfaces	Phoenix, AZ Winter Haven, FL
A-300 Base TPO	N/A	Solvent-based primer for use on aged TPO and PVC membranes.	Phoenix, AZ
MultiBase SB	N/A	Water-based, one-part primer/bleed blocker that enhances the adhesion of Mule-Hide silicone roof coatings	Phoenix, AZ Winter Haven, FL
Si TPO Primer	N/A	Solvent-based primer for use on aged TPO and PVC membranes.	Phoenix, AZ

5. LIMITATIONS:

- 5.1 This is a building code evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this PEER, or previous versions thereof, is/was used for permitting or design guidance. PEERs are not to be construed as representing any attributes not specifically listed, nor are PEERs to be construed as an endorsement of the subject, or a recommendation for its use. There is no warranty by NEMO ETC, LLC or Robert Nieminen, P.E., express or implied, as to any finding or other matter in this PEER, or as to any product covered by the PEER.
- 5.2 This PEER pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction.
- 5.3 This PEER does not include evaluation of fire classification. Refer to **FBC 1505 or FBC HVHZ 1516** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.

- 5.4 Mule-Hide Cements, Adhesives and Coatings are components for use in Approved roof assemblies. Refer to the “Approved Use” in [Section 4](#) for each component. The Cements, Adhesives and Coatings noted herein are not purported to be Roofing Systems, and their use shall be governed by and limited to applications where Roof System Product Approval is not necessary (e.g., maintenance and repair) or where the components are called out in a Roof System Product Approval.
- 5.5 The existing roof system and/or substrate shall meet wind uplift requirements of the project to the satisfaction of the Authority Having Jurisdiction.
- 5.6 All products listed herein shall have quality assurance audit in accordance with **F.A.C. Rule 61G20-3** requirements.

6. INSTALLATION:

- 6.1 **Mule-Hide Cements, Adhesives and Coatings** shall be installed in accordance with [Mule-Hide Products Co., Inc.](#) published installation instructions, subject to the Approved Use in [Section 4](#) and [Limitations of Use](#) herein.
 - 6.1.1 Foundation coat(s), MH TIETEX 272 Poly Fabric (when installed) and finish coat(s) shall be in accordance with Mule-Hide wet-mil and dry-mil thickness requirements.
 - 6.1.2 For metal substrates, exposed fasteners, seams and joints shall be treated in accordance with Mule-Hide requirements, using MH TIETEX 272 Poly Fabric set into a foundation coat.
 - 6.1.3 For wood substrates, joints shall be treated in accordance with Mule-Hide requirements, using MH TIETEX 272 Poly Fabric set into a foundation coat.
- 6.2 Allowable Substrates:

TABLE 2: ALLOWABLE SUBSTRATES FOR WINTER HAVEN, FL PRODUCTION					
SUBSTRATE			PRIMER	FOUNDATION COAT(S)	FINISH COAT(S)
TYPE	SURFACE	CONDITION			
Built-up roof (BUR)	Granule or smooth	New or existing	None	A-300 Base	A-300 Finish
Galvanized metal	N/A	New or existing	(Optional) A-125 Metal Roof Primer	A-300 Base	A-300 Finish
				A-320 Finish	A-320 Finish
Modified bitumen, APP	Granule	New or existing	None	A-300 Base	A-300 Finish
Modified bitumen, APP	Granule	Existing	None	A-320 Finish	A-320 Finish
Modified bitumen, SBS	Granule	New or existing	None	A-300 Base	A-300 Finish
Modified bitumen, SBS	Granule	Existing	None	A-320 Finish	A-320 Finish
Single Ply, CSPE	N/A	Existing	None	A-300 Base	A-300 Finish
				A-320 Finish	A-320 Finish
Single Ply, PVC	N/A	Existing	None	A-300 Base	A-300 Finish
				A-320 Finish	A-320 Finish
Single Ply, TPO	N/A	Existing	Si TPO Primer or A-300 Base TPO	A-300 Base	A-300 Finish
Spray Applied Polyurethane Foam	N/A	New	None	A-300 Base	A-300 Finish
				A-320 Finish	A-320 Finish
Structural Concrete	N/A	New or existing	None	A-300 Base	A-300 Finish
				A-320 Finish	A-320 Finish
Wood	N/A	New or existing	None	A-300 Base	A-300 Finish
				A-320 Finish	A-320 Finish

TABLE 3: ALLOWABLE SUBSTRATES FOR PHOENIX, AZ PRODUCTION

TABLE 3: ALLOWABLE SUBSTRATES FOR PHOENIX, AZ PRODUCTION					
SUBSTRATE			PRIMER	FOUNDATION COAT(S)	FINISH COAT(S)
TYPE	SURFACE	CONDITION			
Galvanized metal	N/A	New or existing	(Optional) A-125 Metal Roof Primer	A-300 Base	A-300 Finish
				A-320 Finish	A-320 Finish
Modified bitumen, APP	Granule	New or existing	None	A-320 Finish	A-320 Finish
Modified bitumen, SBS	Granule	New or existing	None	A-300 Base	A-300 Finish
Modified bitumen, SBS	Granule	Existing	None	A-320 Finish	A-320 Finish
Single Ply, CSPE	N/A	Existing	None	A-300 Base	A-300 Finish
				A-320 Finish	A-320 Finish
Single Ply, PVC	N/A	Existing	None	A-300 Base	A-300 Finish
				A-320 Finish	A-320 Finish
Single Ply, TPO	N/A	Existing	Si TPO Primer or A-300 Base TPO	A-300 Base	A-300 Finish
Spray Applied Polyurethane Foam	N/A	New	None	A-300 Base	A-300 Finish
				A-320 Finish	A-320 Finish
Structural Concrete	N/A	New or existing	None	A-300 Base	A-300 Finish
				A-320 Finish	A-320 Finish
Wood	N/A	New or existing	None	A-300 Base	A-300 Finish
				A-320 Finish	A-320 Finish

7. BUILDING PERMIT REQUIREMENTS:

As required by the Building Official or Authority Having Jurisdiction to properly evaluate the installation of this product.

8. MANUFACTURING PLANTS:

Contact the named QA entity for manufacturing facilities covered by **F.A.C. Rule 61G20-3** QA requirements. Refer to [Section 4](#) herein for products and production locations having met codified material standards.

9. QUALITY ASSURANCE ENTITY:

[UL, LLC – QUA9625](#); (360) 817-5512; bsai.inspections@ul.com

- END OF PEER -