



**NEMO|etc.**

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ENGINEER

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**EVALUATION REPORT**

**Mule-Hide Products Co., Inc.**  
1195 Prince Hall Dr.  
Beloit, WI 53511  
**(608) 365-3111**

**Evaluation Report M31240.11.09-R8**  
**FL10703-R9**  
**Date of Issuance: 11/04/2009**  
**Revision 8: 10/02/2020**

**SCOPE:**

This Evaluation Report is issued under **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 **7<sup>th</sup> Edition (2020) Florida Building Code** sections noted herein.

**DESCRIPTION: Mule-Hide EPDM Single Ply Roof Systems**

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

**CONTINUED COMPLIANCE:** This Evaluation Report 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 Evaluation Reports 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 Evaluation Report relative to updated Code requirements with each Code Cycle.

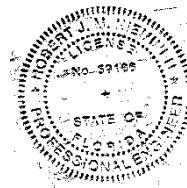
**ADVERTISEMENT:** The Florida Product Approval Number (FL#) preceded by the words "NEMO|etc. Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

**INSPECTION:** Upon request, a copy of this entire Evaluation Report 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 Evaluation Report consists of pages 1 through 4, plus a 27-page Appendix.

**Prepared by:**

**Robert J.M. Nieminen, P.E.**  
*Florida Registration No. 59166, Florida DCA ANE1983*



The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 10/02/2020. This does not serve as an electronically signed document.

**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 evaluation reports 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 Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

**ROOFING SYSTEMS EVALUATION:**
**1. SCOPE:**

**Product Category:** Roofing  
**Sub-Category:** Single Ply Roof Systems

**Compliance Statement:** Mule-Hide EPDM Single Ply Roof Systems, as produced by Mule-Hide Products Co., Inc., have demonstrated compliance with the following sections of the 7<sup>th</sup> Edition (2020) Florida Building Code through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

**2. STANDARDS:**

Section	Property	Standard	Year
1504.3.1	Wind resistance	FM 4474	2011
1504.3.1	Wind resistance	UL 1897	2012
1504.6	Physical properties	ASTM G155	2013
1504.7	Impact resistance	FM 4470, Section 4.6	2016
1507.12.2	Material standard	ASTM D4637	2014
1523.6.2	Wind resistance	TAS 114	2011

**3. REFERENCES:**

Entity	Examination	Reference	Date
NEMO	Evaluation Report	C39170.11.11-R6	08/12/2020
ATI (TST1558)	UL1897	G0671.02-109-44	01/10/2017
FM Approvals (TST1867)	FM 4470/4474	3057831	02/22/2017
UL LLC (TST9628)	UL 1897	03CA16620	12/05/2003
UL LLC (TST9628)	UL 1897	4787536226	10/31/2016
UL LLC (QUA9625)	Quality Control	ML R13850	09/27/2007
UL, LLC (QUA9625)	Quality Control	Service Confirmation	12/14/2018
UL, LLC (QUA9625)	Quality Control	Florida BCIS	Current

**4. PRODUCT DESCRIPTION:**

This Evaluation Report covers Mule-Hide EPDM Single Ply Roof Systems installed in accordance with Mule-Hide Products Co., Inc. published installation instructions and the Limitations / Conditions of Use herein.

**TABLE 1: MEMBRANES FOR EPDM SINGLE PLY ROOF SYSTEMS**

Product	Nominal Thickness (mil)	Material Standard		Plant(s)
		Reference	Type	
Mule-Hide Standard Black EPDM	45, 60, 90	ASTM D4637	I	Carlisle, PA Greenville, IL
Mule-Hide White-on-Black EPDM	60, 90	ASTM D4637	I	Carlisle, PA
Mule-Hide Standard Reinforced EPDM	45, 60, 75	ASTM D4637	II	Carlisle, PA
Mule-Hide Standard EPDM Fleece-Backed	45, 60, 90	ASTM D4637	III	Carlisle, PA
Mule-Hide White-on-Black Fleece-Backed	45, 60, 90	ASTM D4637	III	Carlisle, PA

## 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 Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.
- 5.2 This Evaluation Report is not for use in FBC High Velocity Hurricane Zone jurisdictions (i.e., Broward and Miami-Dade Counties).
- 5.3 This Evaluation Report 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.
- 5.4 This Evaluation Report does not include evaluation of fire classification. Refer to **FBC 1505** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.
- 5.5 This Evaluation Report does not include evaluation of roof edge termination. Refer to **FBC 1504.5** for requirements and limitations regarding edge securement for low-slope roofs.
- 5.6 Refer to **FBC 1511** for requirements and limitations regarding recover installations.
- 5.6.1 For mechanically attached components over existing roof decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing shall be in accordance with **ANSI/SPRI FX-1** or **Testing Application Standard TAS 105**.
- 5.6.2 For bonded insulation or membrane over existing substrates in a re-roof (tear off) or recover installation, the existing deck or existing roof surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with **ANSI/SPRI IA-1, ASTM E907, FM Loss Prevention Data Sheet 1-52** or **Testing Application Standard TAS 124** shall be conducted on mock-ups of the proposed new roof assembly.
- 5.6.3 For bonded insulation or membrane over existing substrates in a recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the Authority Having Jurisdiction, as documented through field uplift testing in accordance with **ASTM E907, FM Loss Prevention Data Sheet 1-52** or **Testing Application Standard TAS 124**.
- 5.7 Refer to Appendix 1 for system attachment requirements for wind load resistance.
- 5.7.1 “MDP” = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads, and reflects the ultimate passing pressure divided by 2 (the 2 to 1 margin of safety per **FBC 1504.9** has already been applied). Refer to **FBC 1609** for determination of design wind loads.
- 5.7.2 For mechanically attached components or partially-bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 PRIME design pressure determined in accordance with **FBC Chapter 16**. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are **ANSI/SPRI WD1, FM Loss Prevention Data Sheet 1-29, Roofing Application Standard RAS 117** and **Roofing Application Standard RAS 137**. Assemblies marked with an asterisk\* carry the limitations set forth in **Section 2.2.10.1 of FM Loss Prevention Data Sheet 1-29 (February 2020)** for Zone 2/3 enhancements.
- 5.7.3 For assemblies with all components fully bonded in place, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with **FBC Chapter 16**. No rational analysis is permitted for these systems.
- 5.8 All components in the roof assembly shall have quality assurance audit in accordance with **F.A.C. Rule 61G20-3**. Refer to the Product Approval of the component manufacturer for components listed in Appendix 1 that are produced by a Product Manufacturer other than the report holder on Page 1 of this Evaluation Report.

**6. INSTALLATION:**

**Mule-Hide EPDM Single Ply Roof Systems** shall be installed in accordance with **Mule-Hide Products Co., Inc.** published installation instructions, subject to the Limitations / Conditions of Use noted herein.

**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; (414) 248-6409; karen.buchmann@ul.com

**- THE 27-PAGES THAT FOLLOW FORM PART OF THIS EVALUATION REPORT -**

**APPENDIX 1: ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE**

TABLE	DECK	APPLICATION	TYPE	DESCRIPTION	PAGE
1A	Wood	New, Reroof (Tear-Off), Recover	C	Mechanically Attached Insulation, Bonded Roof Cover	4-5
1B	Wood	New	F	Non-Insulated, Bonded Roof Cover	5
2A	Steel	New, Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	6
2B	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	B-1	Mechanically Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	6-8
2C	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	B-2	Mech Attached Base Insulation, Bonded Temp Roof, Bonded Top Insulation, Bonded Roof Cover	8
2D	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover	8-14
2E	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	D-1	Insulated, Mechanically Attached Roof Cover (Stress Plates)	14-15
2F	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	D-1	Insulated, Mechanically Attached Roof Cover (Battens)	15-16
3A	Structural Concrete	New, Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	17-23
3B	Structural Concrete	New, Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	24
4A	LWC / Steel or Structural Concrete	New	F	Non-Insulated, Bonded Roof Cover	25
5A	Various	Recover	A-1	Bonded Insulation, Bonded Roof Cover	26-27
5B	Various	Recover	F	Non-Insulated, Bonded Roof Cover	27

**The following notes apply to the systems outlined herein:**

- The roof system evaluation herein 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.
- Unless otherwise noted, fasteners and stress plates shall be as follows. Fasteners shall be of sufficient length for the following engagements:
  - Wood Deck: Mule-Hide Drill Point Fastener or Mule-Hide HDP Fastener with Mule-Hide 3 in. Insulation Plate, OMG #12 or #14 Roofgrip with Flat Bottom Plate, OMG #12 Standard or #14 HD with OMG Standard metal plate, Dekfast #12 or #14 with Hex Plate, Trufast #12 DP or Trufast #14 HD with Trufast 3" Metal Insulation Plate Plates. Minimum 1-inch wood penetration.
  - Steel Deck: Mule-Hide Drill Point Fastener or Mule-Hide HDP Fastener with Mule-Hide 3 in. Insulation Plate, OMG #12 or #14 Roofgrip with Flat Bottom Plate, OMG #12 Standard or #14 HD with OMG Standard metal plate, Dekfast #12 or #14 with Hex Plate, Trufast #12 DP or Trufast #14 HD with Trufast 3" Metal Insulation Plate Plates. Minimum ¼-inch steel penetration, engage the top flute of the steel deck.
  - Structural Concrete: Mule-Hide HDP Fastener or Mule-Hide Fluted Concrete Nail with Mule-Hide 3 in. Insulation Plate, OMG #14 Roofgrip with Flat Bottom Plate, OMG #14 HD or CD-10 with OMG Standard metal plate, Dekfast #14 with Hex Plate, Trufast #14 HD or Trufast Fluted Concrete Nail with Trufast 3" Metal Insulation Plate Plates. Minimum 1-inch embedment. Minimum 1-inch embedment. Fasteners installed with a pilot hole in accordance with the fastener manufacturer's published installation instructions.
- Unless otherwise noted, insulation may be any one layer or combination of FBC Approved (Local or Statewide) board(s) that meet FBC 1505 and, for foam plastic, FBC Chapter 26, when installed with the roof cover.
- Minimum 200 psi, minimum 2-inch thick FBC Approved lightweight insulating concrete may be substituted for rigid insulation board for System Types B-1, C-1, C-2, D-1 or D-2, whereby fasteners are installed through the lightweight insulating concrete to engage the structural deck. The structural deck shall be of equal or greater type, thickness and strength to the steel and structural concrete deck listings. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction. This is a wind uplift resistance allowance and does not purport to address non-wind-uplift-related issues, such as deck venting or moisture levels within the LWIC and the potential effect on overlying components.
- Preliminary insulation attachment for System Type D: Unless otherwise noted, refer to Section 2.2.10.1.3 of FM Loss Prevention Data Sheet 1-29 (February 2020).

- 6 Unless otherwise noted, insulation adhesive application rates are as follows. Ribbon or bead width is at the time of application; the ribbons/beads shall expand as noted in the manufacturer's published instructions.
- Hot Asphalt: Applied at a rate of 20-40 lbs./sq.
  - Helix 2 Low-Rise Adhesive (Helix 2 LRA) (FULL): Full-coverage at 1 gal./square.
  - Helix 2 Low-Rise Adhesive (Helix 2 LRA) (RIBBON): Continuous 0.75 to 1-inch wide ribbons, 12-inch o.c.
  - Helix 2 Low-Rise Adhesive – Dual Tank (Helix 2 LRA-DT) (FULL): Continuous 0.5-inch wide, wet-beads, 4-inch o.c.
  - Helix 2 Low-Rise Adhesive – Dual Tank (Helix 2 LRA-DT) (RIBBON): Continuous 0.5-inch wide, wet-beads, 12-inch o.c. Note: When installing multiple layers of insulation, beads shall be placed perpendicular to those placed for attachment of the previous layer.
  - Helix Max Low-Rise Adhesive (Helix Max LRA) (FULL): Full-coverage at 1 gal./square.
  - Helix Max Low-Rise Adhesive (Helix Max LRA) (RIBBON): Continuous 1-inch wide ribbons, 12-inch o.c.
  - OlyBond 500: Continuous ¾ to 1-inch wide ribbons, 12-inch o.c. using PaceCart or SpotShot application devices
  - Note: When multiple layers(s) of insulation and/or coverboard are installed in ribbon-applied adhesive, board joints shall be staggered.
  - Note: The maximum edge distance from the adhesive ribbon to the edge of the insulation board shall be not less than one-half the specified ribbons spacing.
- 7 Unless otherwise noted, all insulations are flat-stock or taper board of the minimum thickness noted. Tapered polyisocyanurate at the following thickness limitations may be substituted with the following Maximum Design Pressure (MDP) limitations. In no case shall these values be used to 'increase' the MDP listings in the tables; rather if MDP listing below meets or exceeds that listed for a particular system in the tables, then the thinner board listed below may be used as a drop-in for the equivalent thicker material listed in the table.
- Helix 2 LRA or Helix Max LRA (FULL or RIBBON): MDP -157.5 psf (Min. 0.5-inch thick)
  - OlyBond 500: MDP -187.5 psf (Min. 0.5-inch thick)
- 8 For adhered roof insulation and board-size: Unless otherwise noted, refer to Section 2.2.10.6.2 of FM Loss Prevention Data Sheet 1-29 (February 2020).
- 9 For mechanically attached components or partially-bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 PRIME design pressure determined in accordance with FBC Chapter 16. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are ANSI/SPRI WD1, FM Loss Prevention Data Sheet 1-29, Roofing Application Standard RAS 117 and Roofing Application Standard RAS 137. Assemblies marked with an asterisk\* carry the limitations set forth in Section 2.2.10.1 of FM Loss Prevention Data Sheet 1-29 (February 2020) for Zone 2/3 enhancements.
- 10 For assemblies with all components fully bonded, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16. No rational analysis is permitted for these systems.
- 11 For mechanically attached components over existing decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing and analysis shall be in accordance with ANSI/SPRI FX-1 or Testing Application Standard TAS 105.
- 12 For bonded insulation or membrane over existing substrates in a re-roof (tear off) or recover installation, the existing deck or existing roof surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance shall be conducted on mock-ups of the proposed new roof assembly. For bonded insulation or membrane over existing substrates in a recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the Authority Having Jurisdiction, as documented through field uplift testing. Field uplift testing shall be in accordance with ASTM E907, FM Loss Prevention Data Sheet 1-52 or Testing Application Standard TAS 124.
- 13 Refer to FBC 1511 for requirements and limitations regarding recover installations. For Structural Concrete Deck or Recover Applications using System Type C-1, C-2, D-1 or D-2, the insulation is optional. Alternatively, an FBC Approved insulation board or coverboard may be used as a separation layer. Board products shall be preliminarily attached prior to roof cover installation (Note 5 herein). The separator component shall be documented as meeting FBC 1505 and, for foam plastic, FBC Chapter 26, when installed with the roof cover in Recover applications.
- 14 Lightweight insulating concrete (LWIC) shall be cast in accordance with FBC Section 1917 to the satisfaction of the Authority Having Jurisdiction. For systems where specific LWIC is referenced, refer to current LWIC Product Approval for specific deck construction and limitations. Unless otherwise noted, for systems where specific LWIC is not referenced, the minimum design mix shall be 300 psi. In all cases, the minimum top-coat thickness is 2-inches. For LWIC over structural concrete, reference is made to FBC Section 1917.4.1, Point 1. For "pre-existent" LWIC references, listings were established through testing over lightweight concrete cast using only foaming agent (ASTM C896), water and Portland cement (ASTM C150), with no proprietary additives, in accordance with procedures adopted by Miami-Dade BCCO (FBC CER1592). Use of these listings in new construction or re-roof (tear-off) applications is at the discretion of the Designer or Record and Authority Having Jurisdiction.

- 15 For single-ply membranes in System Type D-1 steel deck applications, the roof membrane shall be run with its length perpendicular to the steel deck flutes. For bonded membrane applications, unless otherwise noted, refer to the following.

MEMBRANE / ADHESIVE COMBINATIONS			
MEMBRANE	ADHESIVE	METHOD	RATE
Non-Fleece Roof Covers	Mule-Hide Bonding Adhesive	Contact (both sides)	60 ft <sup>2</sup> /gal (1.67 gal/square)
Non-Fleece Roof Covers	Aqua Base 120 Bonding Adhesive	Contact (both sides)	50 to 60 ft <sup>2</sup> /gal (1.67 to 2.0 gal/square)
Non-Fleece Roof Covers	Mule-Hide Low VOC Bonding Adhesive	Contact (both sides)	60 ft <sup>2</sup> /gal (1.67 gal/square)
Non-Fleece Roof Covers	Mule-Hide Acrylic Water Base Bonding Adhesive	Wet-lay (substrate)	100 ft <sup>2</sup> /gal (1 gal/square)
Non-Fleece Roof Cover	Mule-Hide FR Adhesive	Wet-lay (substrate)	100 to 120 ft <sup>2</sup> / gal (0.83 to 1 gal/square)
FleeceBACK Roof Covers	Aqua Base 120 Bonding Adhesive	Wet lay (substrate)	100 to 120 ft <sup>2</sup> / gal (0.83 to 1 gal/square)
FleeceBACK Roof Covers	Helix 2 LRA, Helix Max LRA or Helix 2 LRA-DT	Wet lay (substrate)	RIBBON spaced as noted herein or FULL Coverage = 1 gal/square or continuous ribbons, maximum 4-inch o.c.

- 16 Vapor barrier options for use over structural concrete deck followed by bonded insulation carry the following MDP limitations. The lesser of the MDP listings below vs. those in Table 3A applies.

VAPOR BARRIER OPTIONS; STRUCTURAL CONCRETE DECK; FOLLOWED BY ADHESIVE-APPLIED INSULATION PER TABLE 3A:					
OPTION #	PRIMER	VAPOR BARRIER		INSULATION ADHESIVE	MDP (PSF)
		TYPE	APPLICATION		
C-VB-1.	Carlisle 702 Primer	F5 Air & Vapor Barrier	Self-adhering	Helix 2 LRA (RIBBON, 12-inch o.c.)	-67.5
C-VB-2.	Carlisle 702 LV Primer	F5 Air & Vapor Barrier	Self-adhering	Helix 2 LRA (RIBBON, 12-inch o.c.)	-97.5
C-VB-3.	Carlisle CAV-GRIP Primer	F5 Air & Vapor Barrier	Self-adhering	Helix 2 LRA (RIBBON, 12-inch o.c.)	-127.5
C-VB-4.	702 Primer, Carlisle 702 LV Primer, Carlisle CAV-GRIP Primer or Mule-Hide AeroWeb	F5 Air and Vapor Barrier	Self-adhering	Helix Max LRA (RIBBONS, 12-inch o.c.)	-157.5
C-VB-5.	ASTM D41	Carlisle SureMB 90TG Base or 120TG Base	Torch-applied	Helix 2 LRA (RIBBON, 12-inch o.c.)	-165.0
C-VB-6.	ASTM D41	Carlisle SureMB 90 Base	Hot-asphalt	Hot asphalt at 25 lbs/square	-172.5
C-VB-7.	ASTM D41	Carlisle SureMB 90TG Base or 120TG Base	Torch-applied	Hot asphalt at 25 lbs/square	-180.0
C-VB-8.	ASTM D41	Carlisle SureMB 90TG Base or 120TG Base	Torch-applied	Helix Max LRA (RIBBON, 12-inch o.c.)	-307.5
C-VB-9.	ASTM D41	Carlisle SureMB 90TG Base or 120TG Base	Torch-applied	Helix Max LRA (RIBBON, 6-inch o.c.)	-495.0

- 17 For membrane attachment using batten-strips, end laps shall be spliced with sufficient dimension to allow for minimum 2-fasteners at each batten-strip lap.
- 18 Side laps shall be sealed in accordance with Mule-Hide requirements:
- Primed with Mule-Hide Tape Primer and adhered with Mule-Hide In-Seam Tape.
  - Cleaned with Mule-Hide Splice Cleaner and adhered with Mule-Hide Black or White Splice Adhesive.
- 19 "MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. Refer to FBC 1609 for determination of design wind loads



**TABLE 1A: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners	Attach		
<b>MEMBRANE APPLIED IN MULE-HIDE BONDING ADHESIVE:</b>							
W-1	Min. 19/32" plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch thick HP Recovery Board, Fiber Base HD1, GP High Density Roof Fiberboard, min. 0.25-inch thick DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board, min. 1.5-inch Poly ISO 2, ACFoam III, Poly ISO 1, H-Shield CG, PSI-25, Multi-Max FA-3	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-45.0*
W-2	Min. 19/32" plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch ACFoam Composite/FB, H-Shield-WF Plus	Note 2	1 per 3.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-45.0*
W-3	Min. 19/32" plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Min. 2.0-inch Poly ISO 2, ACFoam III, Poly ISO 1, H-Shield CG, PSI-25, Multi-Max FA-3	Note 2	1 per 4.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-45.0*
W-4	Min. 23/32-inch plywood	(Optional) One or more layers, any combination, loose laid	Min 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 3.2 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-45.0*
<b>MEMBRANE APPLIED IN LOW VOC BONDING ADHESIVE:</b>							
W-5	Min. 23/32-inch plywood	(Optional) One or more layers, any combination, loose laid	Min 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 3.2 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, Mule-Hide White-on-Black EPDM, Mule-Hide Standard Reinforced EPDM or Mule-Hide FR Reinforced EPDM / Mule-Hide Low VOC Bonding Adhesive	-45.0*
<b>MEMBRANE APPLIED IN MULE-HIDE ACRYLIC WATER BASE BONDING ADHESIVE:</b>							
W-6	Min. 19/32" plywood or wood plank; max. 24" spans	(Optional for Recover) One or more layers, any combination, min. 1.5-inch thick, loose laid	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 0.5-inch Dens Deck Prime, SECUROCK Gypsum-Fiber Roof Board	Mule-Hide Drill Point, Mule-Hide HDP or Mule-Hide EHD Fastener with Mule-Hide 3 in. Insulation Plate	1 per 2.0 ft <sup>2</sup>	Mule-Hide White on Black EPDM / Mule-Hide Acrylic Water Base Bonding Adhesive	-30.0*
W-7	Min. 19/32" plywood or wood plank; max. 24" spans	(Optional for Recover) One or more layers, any combination, min. 1.5-inch thick, loose laid	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	Mule-Hide Drill Point, Mule-Hide HDP or Mule-Hide EHD Fastener with Mule-Hide 3 in. Insulation Plate	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM or Standard Reinforced EPDM / Mule-Hide Acrylic Water Base Bonding Adhesive	-37.5*
W-8	Min. 19/32" plywood or wood plank; max. 24" spans	(Optional for Recover) One or more layers, any combination, min. 1.5-inch thick, loose laid	Min. 0.5-inch Dens Deck Prime, SECUROCK Gypsum-Fiber Roof Board or Min. 7/16-inch APA rated OSB	Mule-Hide Drill Point, Mule-Hide HDP or Mule-Hide EHD Fastener with Mule-Hide 3 in. Insulation Plate	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM or Standard Reinforced EPDM / Mule-Hide Acrylic Water Base Bonding Adhesive	-45.0*
<b>MEMBRANE APPLIED IN HELIX 2 LRA, HELIX MAX LRA, HELIX 2 LRA-DT:</b>							



**TABLE 1A: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners	Attach		
W-9	Min. 23/32-inch plywood	(Optional) One or more layers, any combination, loose laid	Min 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 3.2 ft <sup>2</sup>	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA, Helix Max LRA, Helix 2 LRA-DT (FULL)	-45.0*

**TABLE 1B: WOOD DECKS – NEW CONSTRUCTION  
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER**

System No.	Deck (Note 1)	Roof Cover (Note 15)		MDP (psf)
		Membrane	Application	
<b>MEMBRANE APPLIED IN MULE-HIDE ACRYLIC WATER BASE BONDING ADHESIVE:</b>				
W-10	Min. 7/16" thick Mule-Hide FR Deck Panel A, Barrier Technology Corp "Blazeguard A", Mule-Hide FR Deck Panel C or Barrier Technology Corp "Blazeguard C" attached to wood supports spaced max. 24" o.c. using No. 8 x 2½-inch long course thread screws spaced 6" o.c. at all supports.	Mule-Hide Standard EPDM or White-on-Black EPDM	Mule-Hide Acrylic Water Base Bonding Adhesive	-120.0
<b>MEMBRANE APPLIED IN MULE-HIDE FR ADHESIVE:</b>				
W-11	Min. 15/32" APA rated plywood at max. 24" spans	Mule-Hide Standard EPDM or White-on-Black EPDM	Mule-Hide FR Adhesive	-120.0
W-12	Min. 15/32" APA rated OSB at max. 24" spans	Mule-Hide Standard EPDM or White-on-Black EPDM	Mule-Hide FR Adhesive	-127.5
W-13	Min. 7/16" APA rated OSB at max. 24" spans	Mule-Hide Standard EPDM or White-on-Black EPDM	Mule-Hide FR Adhesive	-187.5

**TABLE 2A: STEEL DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)  
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Insulation	Roof Cover (Note 15)	MDP (psf)
SC-1	Min. 22 ga., type B, Grade 33 steel	Elastospray 81255 spray applied to fill the deck flutes and min. 1.5-inch above the top deck flanges.	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA (FULL)	-195.0

**TABLE 2B: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
		Type	Fasten	Attach	Type	Attach (Notes 6,7&8)		
<b>MEMBRANE APPLIED IN MULE-HIDE BONDING ADHESIVE:</b>								
SC-2	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 2-inch Insulfoam VIII	Note 2	1 per 2.7 ft <sup>2</sup>	Min. 1.5-inch InsulLam (OSB)	Helix Max LRA (RIBBON, 6-inch o.c.)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-37.5*
SC-3	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 2-inch Insulfoam VIII	Note 2	1 per 2.0 ft <sup>2</sup>	Min. 2-inch Insulfoam HD Composite	Helix Max LRA (RIBBON, 6-inch o.c.)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-45.0*
SC-4	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 3-inch Insulfoam VIII	Mule-Hide Drill Point with Mule-Hide 3 in. Insulation Plate	1 per 2.0 ft <sup>2</sup>	Min. 2-inch InsulLam (OSB)	Helix 2 LRA (RIBBON, 6-inch o.c.)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-75.0
SC-5	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1	Note 2	1 per 1.3 ft <sup>2</sup>	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-60.0
<b>MEMBRANE APPLIED IN HELIX 2 LRA, HELIX MAX LRA, HELIX 2 LRA-DT:</b>								
SC-6	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers Min. 1.5-inch Poly ISO 1, or AC Foam II	Note 2	1 per 2.0 ft <sup>2</sup>	Min. 0.25-inch DensDeck, DensDeck Prime	Helix 2 LRA, Helix Max LRA (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA, Helix Max LRA (RIBBON, 12-inch o.c.)	-37.5*
SC-7	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck or DensDeck Prime	Note 2	1 per 2.0 ft <sup>2</sup>	Min. 1.5-inch Kingspan GreenGuard Extruded Polystyrene followed by min. 0.25-inch DensDeck Prime	Helix 2 LRA, Helix Max LRA (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA, Helix Max LRA (RIBBON, 12-inch o.c.)	-37.5*
SC-8	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 2-inch Insulfoam VIII	Note 2	1 per 2.7 ft <sup>2</sup>	Min. 1.5-inch InsulLam (OSB)	Helix Max LRA (RIBBON, 6-inch o.c.)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA, Helix Max LRA (FULL)	-37.5*
SC-9	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers Min. 1.5-inch Poly ISO 1, or AC Foam II	Note 2	1 per 2.0 ft <sup>2</sup>	Additional layers of base insulation	Helix 2 LRA, Helix Max LRA (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA, Helix Max LRA (RIBBON, 12-inch o.c.)	-45.0*

**TABLE 2B: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
		Type	Fasten	Attach	Type	Attach (Notes 6,7&8)		
SC-10	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1	Note 2	1 per 3.2 ft <sup>2</sup>	Min. 1.0-inch base insulation	Helix 2 LRA, Helix Max LRA (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA, Helix Max LRA (FULL)	-45.0*
SC-11	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1	Note 2	1 per 3.2 ft <sup>2</sup>	Min. 0.25-inch DensDeck Prime	Helix 2 LRA, Helix Max LRA (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA, Helix Max LRA (FULL)	-45.0*
SC-12	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch Poly ISO 1	Note 2	1 per 4.0 ft <sup>2</sup>	Min. 1.0-inch base insulation	Helix 2 LRA, Helix Max LRA (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA, Helix Max LRA (FULL)	-45.0*
SC-13	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch Poly ISO 1	Note 2	1 per 4.0 ft <sup>2</sup>	Min. 0.25-inch DensDeck Prime	Helix 2 LRA, Helix Max LRA (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA, Helix Max LRA (FULL)	-45.0*
SC-14	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 2-inch Insulfoam VIII	Note 2	1 per 2.0 ft <sup>2</sup>	Min. 2-inch Insulfoam HD Composite	Helix Max LRA (RIBBON, 6-inch o.c.)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix Max LRA (FULL)	-45.0*
SC-15	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1	Note 2	1 per 1.6 ft <sup>2</sup>	Min. 1.0-inch base insulation	Helix 2 LRA, Helix Max LRA (RIBBON, 6-inch o.c.)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA, Helix Max LRA (FULL)	-67.5
SC-16	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 3-inch Insulfoam VIII	Mule-Hide Drill Point with Mule-Hide 3 in. Insulation Plate	1 per 2.0 ft <sup>2</sup>	Min. 2-inch InsulLam (OSB)	Helix 2 LRA (RIBBON, 6-inch o.c.)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA, max. 6-inch o.c. or (FULL)	-75.0
SC-17	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers Min. 1.5-inch Poly ISO 1	Note 2	1 per 2.0 ft <sup>2</sup>	Min. 0.25-inch DensDeck Prime	Helix 2 LRA-DT (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA-DT (RIBBON, 12-inch o.c.)	-37.5*
SC-18	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers Min. 1.5-inch Poly ISO 1	Note 2	1 per 2.0 ft <sup>2</sup>	Additional layers of base insulation	Helix 2 LRA-DT (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA-DT (RIBBON, 12-inch o.c.)	-45.0*
SC-19	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1	Note 2	1 per 3.2 ft <sup>2</sup>	Min. 1.0-inch base insulation	Helix 2 LRA-DT (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA-DT (FULL)	-45.0*
SC-20	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1	Note 2	1 per 3.2 ft <sup>2</sup>	Min. 0.25-inch DensDeck Prime	Helix 2 LRA-DT (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA-DT (FULL)	-45.0*
SC-21	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch Poly ISO 1	Note 2	1 per 4.0 ft <sup>2</sup>	Min. 1.0-inch base insulation	Helix 2 LRA-DT (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA-DT (FULL)	-45.0*

**TABLE 2B: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**  
**SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
		Type	Fasten	Attach	Type	Attach (Notes 6,7&8)		
SC-22	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch Poly ISO 1	Note 2	1 per 4.0 ft <sup>2</sup>	Min. 0.25-inch DensDeck Prime	Helix 2 LRA-DT (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA-DT (FULL)	-45.0*
SC-23	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1	Note 2	1 per 1.6 ft <sup>2</sup>	Min. 1.0-inch base insulation	Helix 2 LRA-DT (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA-DT (FULL)	-67.5

**TABLE 2C: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) OR RECOVER**  
**SYSTEM TYPE B-2: MECHANICALLY ATTACHED BASE INSULATION, BONDED TEMP ROOF, BONDED TOP INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Insulation Layer			Temp Roof	Insulation		Roof Cover (Note 15)	MDP (psf)
		Type	Fastener	Attach		Type	Attach (Notes 6,7&8)		
<b>MEMBRANE APPLIED IN HELIX 2 LRA, HELIX MAX LRA:</b>									
SC-24	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck Prime	Note 2	1 per 2.0 ft <sup>2</sup>	CAV-GRIP or CCW-702 Quick Dry Primer followed by 725TR Air & Vapor Barrier, self-adhered	Min. 1.5-inch Poly ISO 1	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA, Helix Max LRA (FULL)	-52.5

**TABLE 2D: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**  
**SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners	Attach		
<b>MEMBRANE APPLIED IN MULE-HIDE BONDING ADHESIVE:</b>							
SC-25	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch Poly ISO 1-HD	Note 2	1 per 2.7 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-37.5*
SC-26	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch thick HP Recovery Board	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-45.0*
SC-27	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch thick DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-45.0*

**TABLE 2D: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners	Attach		
SC-28	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1-inch Poly ISO 1	Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-45.0*
SC-29	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch Poly ISO 1, Poly ISO 2, ACFoam III, H-Shield CG, PSI-25, Multi-Max FA-3	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-45.0*
SC-30	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2.0-inch Poly ISO 1, Poly ISO 2, ACFoam III, H-Shield CG, PSI-25, Multi-Max FA-3	Note 2	1 per 4.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-45.0*
SC-31	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch ACFoam Composite/FB, H-Shield-WF Plus	Note 2	1 per 3.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-45.0*
SC-32	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1 or Poly ISO 2	Min. 0.5-inch Poly ISO 1-HD90	Note 2	1 per 4.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-45.0*
SC-33	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1-inch Poly ISO 1	Min. 0.5-inch DensDeck Prime	Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-52.5
SC-34	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1 or Poly ISO 2	Min. 0.5-inch Poly ISO 1-HD90	Note 2	1 per 1.8 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-60.0
SC-35	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch SecurShield, H-Shield CG	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-60.0
SC-36	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board, followed by min. 1.5-inch STYROFOAM DECKMATE Plus FA	Min. 0.5-inch DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.3 ft <sup>2</sup>	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-67.5
SC-37	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1	Min. 0.5-inch DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.3 ft <sup>2</sup>	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-67.5

**TABLE 2D: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners	Attach		
SC-38	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2.0-inch Poly ISO 1 or Poly ISO 2	Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-75.0
SC-39	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1-inch Poly ISO 1	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-75.0
SC-40	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1	Min. 7/16-inch APA rated OSB	Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-82.5
SC-41	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board, followed by min. 1.5-inch STYROFOAM DECKMATE Plus FA	Min. 0.5-inch DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.0 ft <sup>2</sup>	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-97.5
SC-42	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1	Min. 0.5-inch DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.0 ft <sup>2</sup>	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-97.5
SC-43	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1	Min. 7/16-inch APA rated OSB	Note 2	1 per 1.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-105.0
SC-44	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch SecurShield, H-Shield CG, Poly ISO 1-HD-Composite	Note 2	1 per 1.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-112.5
SC-45	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1 or Poly ISO 2	Min. 0.5-inch Poly ISO 1-HD90	Note 2	1 per 1.3 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-112.5
SC-46	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch SecurShield, H-Shield CG, Poly ISO 1-HD-Composite	Note 2	1 per 1.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Bonding Adhesive	-127.5
<b>MEMBRANE APPLIED IN AQUA BASE 120 BA ADHESIVE:</b>							
SC-47	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch HP Recovery Board or min. 0.25-inch DensDeck Prime	Note 2	1 per 4.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Aqua Base 120 BA	-30.0*



**TABLE 2D: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners	Attach		
SC-48	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	None	Min. 0.5-inch HP Recovery Board	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Aqua Base 120 BA	-37.5*
SC-49	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 2, Poly ISO 1	Min. 0.5-inch HP Recovery Board	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Aqua Base 120 BA	-45.0*
SC-50	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch DensDeck Prime	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Aqua Base 120 BA	-45.0*
SC-51	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 7/16" APA Rated oriented strand board	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Aqua Base 120 BA	-45.0*
SC-52	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1-inch Poly ISO 1	Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Aqua Base 120 BA	-45.0*
SC-53	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch Poly ISO 1 or Poly ISO 2	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Aqua Base 120 BA	-45.0*
SC-54	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 2, Poly ISO 1	Min. 0.5-inch HP Recovery Board	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Aqua Base 120 BA	-45.0*
SC-55	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch DensDeck Prime	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Aqua Base 120 BA	-45.0*
SC-56	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch Poly ISO 1 or Poly ISO 2	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Aqua Base 120 BA	-45.0*
<b>MEMBRANE APPLIED IN LOW VOC BONDING ADHESIVE:</b>							
SC-57	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch Polyiso HP-H or Poly ISO 1, H-Shield	Note 2	1 per 3.2 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Low VOC Bonding Adhesive	-45.0*
SC-58	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2.0-inch Polyiso HP-H or Poly ISO 1, H-Shield	Note 2	1 per 4 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Low VOC Bonding Adhesive	-45.0*



**TABLE 2D: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners	Attach		
SC-59	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 2, ACFoam II, Polyiso HP-H, HP-N, HP-W, Poly ISO 1, H-Shield, ENRGY 3	Min. 0.5-inch HP Recovery Board	Note 2	1 per 2 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Low VOC Bonding Adhesive	-45.0*
SC-60	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2.0-inch Polyiso HP-H or Poly ISO 1, H-Shield	Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Low VOC Bonding Adhesive	-75.0
SC-61	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch SecurShield	Note 2	1 per 1 ft <sup>2</sup>	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM / Mule-Hide Low VOC Bonding Adhesive	-75.0
<b>MEMBRANE APPLIED IN MULE-HIDE ACRYLIC WATER BASE BONDING ADHESIVE:</b>							
SC-62	Min. 22 ga., type B, Grade 33 steel or Min. 2,500 psi structural concrete	(Optional for Recover) One or more layers, any combination, min. 1.5-inch thick, loose laid	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation or Min. 0.5-inch Dens Deck Prime, SECUROCK Gypsum-Fiber Roof Board	Mule-Hide Drill Point (steel only), Mule-Hide HDP or Mule-Hide EHD (steel only) Fastener or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 3 in. Insulation Plate	1 per 2.0 ft <sup>2</sup>	Mule-Hide White on Black EPDM / Mule-Hide Acrylic Water Base Bonding Adhesive	-30.0*
SC-63	Min. 22 ga., type B, Grade 33 steel or Min. 2,500 psi structural concrete	(Optional for Recover) One or more layers, any combination, min. 1.5-inch thick, loose laid	Min. 0.5-inch Structodek High Density Fiberboard Roof Insulation	Mule-Hide Drill Point (steel only), Mule-Hide HDP or Mule-Hide EHD (steel only) Fastener or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 3 in. Insulation Plate	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM or Standard Reinforced EPDM / Mule-Hide Acrylic Water Base Bonding Adhesive	-37.5*
SC-64	Min. 22 ga., type B, Grade 33 steel or Min. 2,500 psi structural concrete	(Optional for Recover) One or more layers, any combination, min. 1.5-inch thick, loose laid	Min. 0.5-inch Dens Deck Prime, SECUROCK Gypsum-Fiber Roof Board or Min. 7/16-inch APA rated OSB	Mule-Hide Drill Point (steel only), Mule-Hide HDP or Mule-Hide EHD (steel only) Fastener or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 3 in. Insulation Plate	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM or Standard Reinforced EPDM / Mule-Hide Acrylic Water Base Bonding Adhesive	-45.0*
SC-65	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.25-inch Dens Deck or SECUROCK Gypsum-Fiber Roof Board or Min. 1.5-inch Poly ISO 1 or H-Shield, loose laid.	Min. 7/16-inch Mule-Hide FR Deck Panel A, FR Deck Panel C	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard Black EPDM or White-on-Black EPDM / Mule-Hide Acrylic Water Base Bonding Adhesive	-45.0*
SC-66	Min. 22 ga., type B, Grade 33 steel; 6' spans, Traxx/5 screws 6" o.c. or min. 2,500 psi structural concrete	Min. 0.25-inch Dens Deck or SECUROCK Gypsum-Fiber Roof Board or Min. 1.5-inch Poly ISO 1 or H-Shield, loose laid.	Min. 7/16-inch APA rated OSB, Mule-Hide FR Deck Panel A, FR Deck Panel C	Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide Standard Black EPDM or White-on-Black EPDM / Mule-Hide Acrylic Water Base Bonding Adhesive	-82.5

**TABLE 2D: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners	Attach		
SC-67	Min. 22 ga., type B, Grade 33 steel or Min. 2,500 psi structural concrete	Min. 0.25-inch Dens Deck or SECUROCK Gypsum-Fiber Roof Board or Min. 1.5-inch Poly ISO 1 or H-Shield, loose laid.	Min. 7/16-inch APA rated OSB, Mule-Hide FR Deck Panel A, FR Deck Panel C	Mule-Hide HD Fasteners and Mule-Hide 3 in. Insulation Plates or Trufast #14 HD Fasteners and Trufast 3" Metal Insulation Plate plates	1 per 1.3 ft <sup>2</sup>	Mule-Hide Standard Black EPDM / Mule-Hide Acrylic Water Base Bonding Adhesive	-105.0
SC-68	Min. 22 ga., type B, Grade 33 steel or Min. 2,500 psi structural concrete	(Optional) Min. 0.25-inch Dens Deck or SECUROCK Gypsum-Fiber Roof Board or Min. 1.5-inch Poly ISO 1 or H-Shield, loose laid.	Min. 2-inch Poly ISO 1-NB or H-Shield NB or Min. 3-inch Poly ISO 1 Cool-Vent or Cool-Vent	Mule-Hide HD Fasteners and Mule-Hide 3 in. Insulation Plates or Trufast #14 HD Fasteners and Trufast 3" Metal Insulation Plate plates	1 per 1.3 ft <sup>2</sup>	Mule-Hide Standard Black EPDM / Mule-Hide Acrylic Water Base Bonding Adhesive	-105.0
<b>MEMBRANE APPLIED IN HELIX 2 LRA, HELIX MAX LRA, HELIX 2 LRA-DT:</b>							
SC-69	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch SecurShield, H-Shield CG	Note 2	1 per 3.2 ft <sup>2</sup>	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA-DT (RIBBON, 12-inch o.c.)	-45.0*
SC-70	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min 0.5-inch HP Recovery Board	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix Max LRA (RIBBON, 12-inch o.c.)	-45.0*
SC-71	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min 0.5-inch DensDeck Prime	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA, Helix Max LRA, Helix 2 LRA-DT (RIBBON, 12-inch o.c.)	-45.0*
SC-72	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1 or Poly ISO 2	Min. 0.5-inch Poly ISO 1-HD90	Note 2	1 per 4.0 ft <sup>2</sup>	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix Max LRA (FULL)	-45.0*
SC-73	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1 or Poly ISO 2	Min. 0.5-inch Poly ISO 1-HD90	Note 2	1 per 1.8 ft <sup>2</sup>	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix Max LRA (FULL)	-60.0
SC-74	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min 7/16-inch APA or TECO rated OSB	Note 2	1 per 1.9 ft <sup>2</sup>	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA, Helix Max LRA, Helix 2 LRA-DT (FULL)	-75.0
SC-75	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.5-inch DensDeck Prime	Note 2	1 per 1.0 ft <sup>2</sup>	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix Max LRA (FULL)	-97.5

**TABLE 2D: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners	Attach		
SC-76	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch Poly ISO 1	Note 2	1 per 1.0 ft <sup>2</sup>	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix Max LRA (FULL)	-112.5
SC-77	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1 or Poly ISO 2	Min. 0.5-inch Poly ISO 1-HD90	Note 2	1 per 1.3 ft <sup>2</sup>	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix Max LRA (FULL)	-112.5
SC-78	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.0 ft <sup>2</sup>	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix Max LRA (FULL)	-127.5
SC-79	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch SecurShield, H-Shield CG	Note 2	1 per 1.0 ft <sup>2</sup>	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix Max LRA, Helix 2 LRA-DT (FULL)	-135.0
SC-80	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min 7/16-inch APA or TECO rated OSB	Note 2	1 per 1.0 ft <sup>2</sup>	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA, Helix Max LRA, Helix 2 LRA-DT (FULL)	-135.0
SC-81	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.0 ft <sup>2</sup>	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed / Helix 2 LRA, Helix 2 LRA-DT (FULL).	-135.0

**TABLE 2E: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE D-1: INSULATED, MECHANICALLY ATTACHED ROOF COVER (STRESS PLATES)**

System No.	Deck	Insulation		Roof Cover			MDP (psf)
		Type	Attach	Membrane	Fasteners	Attachment	
SC-82	Min. 22 ga, type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM (0.070" thick)	Mule-Hide HD Fasteners or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide Polymer Seam Plates	12-inch o.c. within 7-inch wide laps spaced 115-inch o.c.	-30.0
SC-83	Min. 22 ga, type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide HD Fasteners or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide Polymer Seam Plates	12-inch o.c. within 6-inch wide laps spaced 90-inch o.c.	-30.0
SC-84	Min. 22 ga, type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide HD Fasteners or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide Polymer Seam Plates	6-inch o.c. within 6-inch wide laps spaced 114-inch o.c.	-37.5
SC-85	Min. 22 ga, type B, Grade 40 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM (0.070" thick)	Mule-Hide HD Fasteners or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide Polymer Seam Plates	6-inch o.c. within 6-inch wide laps spaced 114-inch o.c.	-52.5

**TABLE 2E: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE D-1: INSULATED, MECHANICALLY ATTACHED ROOF COVER (STRESS PLATES)**

System No.	Deck	Insulation		Roof Cover			MDP (psf)
		Type	Attach	Membrane	Fasteners	Attachment	
SC-86	Min. 22 ga, type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide HD Fasteners or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide Polymer Seam Plates	6-inch o.c. within 6-inch wide laps spaced 114-inch o.c.	-52.5
SC-87	Min. 22 ga, type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide HD Fasteners or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide Polymer Seam Plates	6-inch o.c. within 6-inch wide laps spaced 90-inch o.c.	-52.5
SC-88	Min. 22 ga, type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Mule-Hide White-on-Black Fleece-Backed 145	Mule-Hide HD Fasteners or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide Polymer Seam Plates	6-inch o.c. within 6-inch wide laps spaced 112-inch o.c.	-52.5
SC-89	Min. 22 ga, type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM (0.070" thick)	Mule-Hide HD Fasteners or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide Polymer Seam Plates	6-inch o.c. within 7-inch wide laps spaced 115-inch o.c.	-60.0

**TABLE 2F: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE D-1: INSULATED, MECHANICALLY ATTACHED ROOF COVER (BATTENS)**

System No.	Deck	Insulation		Roof Cover			MDP (psf)
		Type	Attach	Membrane	Fasteners	Attachment	
SC-90	Min. 22 ga, type B, Grade 40 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide EHD Fasteners (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide Metal Batten Bars	Fasteners 12-inch o.c. through batten within 6-inch wide laps spaced 114-inch o.c.	-30.0
SC-91	Min. 22 ga, type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide EHD Fasteners (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with OMG Polymer Batten Strip.	Fasteners 12-inch o.c. through batten within 6-inch wide laps spaced 90-inch o.c.	-30.0
SC-92	Min. 22 ga, type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide EHD Fasteners (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide Metal Batten Bars	Fasteners 12-inch o.c. through batten within 6-inch wide laps spaced 90-inch o.c.	-30.0
SC-93	Min. 22 ga, type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide EHD Fasteners (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide Metal Batten Bars	Fasteners 12-inch o.c. through batten within min. 5-inch wide laps spaced max 115-inch o.c.	-37.5
SC-94	Min. 22 ga, type B, Grade 40 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide EHD Fasteners (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide Metal Batten Bars	Fasteners 6-inch o.c. through batten within 6-inch wide laps spaced 114-inch o.c.	-52.5

**TABLE 2F: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE D-1: INSULATED, MECHANICALLY ATTACHED ROOF COVER (BATTENS)**

System No.	Deck	Insulation		Roof Cover			MDP (psf)
		Type	Attach	Membrane	Fasteners	Attachment	
SC-95	Min. 22 ga, type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide EHD Fasteners (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide Metal Batten Bars	Fasteners 6-inch o.c. through batten within min. 5-inch wide laps spaced max. 115-inch o.c.	-60.0
SC-96	Min. 22 ga, type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide EHD Fasteners (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with OMG Polymer Batten Strip.	Fasteners 6-inch o.c. through batten within 6-inch wide laps spaced 90-inch o.c.	-60.0
SC-97	Min. 22 ga, type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide EHD Fasteners (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide Metal Batten Bars	Fasteners 6-inch o.c. through batten within 6-inch wide laps spaced 90-inch o.c.	-82.5

**TABLE 3A: CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**  
 NOTE: REFER TO NOTE 16 FOR VAPOR BARRIER OPTIONS

System No.	Roof Deck	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf)
		Type	Attach (Notes 6,7&8)	Type	Attach (Notes 6,7&8)	Membrane	Application	
<b>MEMBRANE APPLIED IN MULE-HIDE BONDING ADHESIVE:</b>								
C-1.	Min. 2,500 psi structural concrete (primed)	Min. 0.5-inch Poly ISO 1	Hot Asphalt	(Optional) Additional layers of base insulation	Hot Asphalt	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-157.5
C-2.	Min. 2,500 psi structural concrete (primed)	Min. 1.5-inch Poly ISO 2, AC Foam III, Poly ISO 1	Hot Asphalt	(Optional) Additional layers of base insulation	Hot Asphalt	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-330.0
C-3.	Min. 2,500 psi structural concrete (primed)	Min. 1.5-inch Poly ISO 2, AC Foam III, Poly ISO 1	Hot Asphalt	Min 0.5-inch HP Recovery Board, GP High Density Roof Fiberboard or Temple Fiber Base HD1 or HD6	Hot Asphalt	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-330.0
C-4.	Min. 2,500 psi structural concrete (primed)	Min. 1.5-inch Poly ISO 2, AC Foam III, Poly ISO 1	Hot Asphalt	Min. 0.25-inch DensDeck, DensDeck Prime	Hot Asphalt	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-352.5
C-5.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	(Optional) Additional layers of base insulation	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-157.5
C-6.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 2, AC Foam III, Poly ISO 1	Helix 2 LRA, Helix Max LRA (RIBBON)	Min 0.5-inch HP Recovery Board	Helix 2 LRA, Helix Max LRA (RIBBON)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-157.5
C-7.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-157.5
C-8.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulLam (GYP)	Helix Max LRA (FULL)	None	N/A	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-157.5
C-9.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 2, AC Foam III, Poly ISO 1	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	Min. 0.25-inch DensDeck, DensDeck Prime	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-232.5
C-10.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 2, AC Foam III, Poly ISO 1	Helix 2 LRA, Helix Max LRA (RIBBON)	(Optional) Additional layers of base insulation	Helix 2 LRA, Helix Max LRA (RIBBON)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-240.0
C-11.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 2, AC Foam III, Poly ISO 1	Helix 2 LRA, Helix Max LRA (RIBBON)	Min. 2-inch H-Shield-WF	Helix 2 LRA, Helix Max LRA (RIBBON)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-240.0



**TABLE 3A: CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**  
 NOTE: REFER TO NOTE 16 FOR VAPOR BARRIER OPTIONS

System No.	Roof Deck	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf)
		Type	Attach (Notes 6,7&8)	Type	Attach (Notes 6,7&8)	Membrane	Application	
C-12.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulLam (WF)	Helix Max LRA (FULL)	None	N/A	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-255.0
C-13.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch SecurShield or H-Shield CG	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	Min. 1.5-inch Poly ISO 1-HD-Composite	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-270.0
C-14.	Min. 2,500 psi structural concrete	Min. 1.5-inch Insulfoam HD Composite	Helix Max LRA (FULL)	None	N/A	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-270.0
C-15.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 2, ACFoam III, Poly ISO 1	Helix 2 LRA, Helix Max LRA (FULL)	(Optional) Additional layers of base insulation	Helix 2 LRA, Helix Max LRA (FULL)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-330.0
C-16.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 2, ACFoam III, Poly ISO 1	Helix 2 LRA, Helix Max LRA (FULL)	Min 0.5-inch HP Recovery Board	Helix 2 LRA, Helix Max LRA (FULL)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-330.0
C-17.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 2, ACFoam III, Poly ISO 1	Helix 2 LRA, Helix Max LRA (FULL)	Min. 2-inch H-Shield-WF	Helix 2 LRA, Helix Max LRA (FULL)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-330.0
C-18.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulLam (OSB)	Helix Max LRA (FULL)	None	N/A	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-105.0
C-19.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, SecurShield, H-Shield CG	Helix 2 LRA-DT (RIBBON)	(Optional) Additional layers of base insulation and/or min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board or DensDeck Prime	Helix 2 LRA-DT (RIBBON)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-112.5
C-20.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, SecurShield, H-Shield CG	Helix 2 LRA-DT (RIBBON)	Min. 1.5-inch Poly ISO 1-HD-Composite or min. 2-inch H-Shield-WF	Helix 2 LRA-DT (RIBBON)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-112.5
C-21.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1	Helix 2 LRA-DT (FULL)	(Optional) Additional layers of base insulation and/or Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix 2 LRA-DT (FULL)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-157.5
C-22.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1	Helix 2 LRA-DT (FULL)	Min. 0.25-inch DensDeck Prime	Helix 2 LRA-DT (FULL)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-232.5



**TABLE 3A: CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**  
 NOTE: REFER TO NOTE 16 FOR VAPOR BARRIER OPTIONS

System No.	Roof Deck	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf)
		Type	Attach (Notes 6,7&8)	Type	Attach (Notes 6,7&8)	Membrane	Application	
C-23.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, SecurShield, H-Shield CG	Helix 2 LRA-DT (FULL)	Min. 1.5-inch Poly ISO 1-HD-Composite	Helix 2 LRA-DT (FULL)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-270.0
C-24.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1	Helix 2 LRA-DT (FULL)	(Optional) Additional layers of base insulation	Helix 2 LRA-DT (FULL)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-330.0
C-25.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, SecurShield, H-Shield CG	Helix 2 LRA-DT (FULL)	Min. 2-inch H-Shield-WF	Helix 2 LRA-DT (FULL)	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-330.0
C-26.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 2, AC Foam III, Poly ISO 1	OB500	Min 0.5-inch HP Recovery Board	OB500	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-120.0
C-27.	Min. 2,500 psi structural concrete	Min. 1.0-inch Foamular 250	OB500	Min 0.5-inch HP Recovery Board	OB500	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-120.0
C-28.	Min. 2,500 psi structural concrete	Min. 2.0-inch, min. 1.0 pcf, Insulfoam	OB500	Min. 0.25-inch DensDeck or DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	OB500	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-120.0
C-29.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 2, AC Foam III	OB500	(Optional) Additional layers of base insulation	OB500	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-150.0
C-30.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 2, AC Foam III, Poly ISO 1	OB500	Min. 0.25-inch DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	OB500	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-150.0
C-31.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1	OB500	(Optional) Additional layers of base insulation	OB500	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-157.5
C-32.	Min. 2,500 psi structural concrete	Min. 1.0-inch STYROFOAM DECKMATE Plus FA	OB500	Min. 0.25-inch DensDeck, DensDeck Prime	OB500	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-232.5
C-33.	Min. 2,500 psi structural concrete	Min. 1.0-inch Foamular 250	OB500	Min. 0.25-inch DensDeck or DensDeck Prime	OB500	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-277.5

MEMBRANE APPLIED IN AQUA BASE 120 BA ADHESIVE:

**TABLE 3A: CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**  
 NOTE: REFER TO NOTE 16 FOR VAPOR BARRIER OPTIONS

System No.	Roof Deck	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf)
		Type	Attach (Notes 6,7&8)	Type	Attach (Notes 6,7&8)	Membrane	Application	
C-34.	Min. 2,500 psi structural concrete (primed)	(Optional) Min. 1.5-inch Poly ISO 2, Poly ISO 1	Hot Asphalt	Min. 0.5-inch HP Recovery Board	Hot Asphalt	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-90.0
C-35.	Min. 2,500 psi structural concrete (primed)	Min. 0.5-inch Poly ISO 1	Hot Asphalt	(Optional) Additional layers of base insulation	Hot Asphalt	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-157.5
C-36.	Min. 2,500 psi structural concrete (primed)	Min. 1.5-inch Poly ISO 2, Poly ISO 1	Hot Asphalt	(Optional) Additional layers of base insulation	Hot Asphalt	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-165.0
C-37.	Min. 2,500 psi structural concrete (primed)	(Optional) Min. 1.5-inch Poly ISO 2, Poly ISO 1	Hot Asphalt	Min. 0.25-inch DensDeck Prime	Hot Asphalt	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-165.0
C-38.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1 or Poly ISO 2	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	Min. 0.5-inch HP Recovery Board	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-90.0
C-39.	Min. 2,500 psi structural concrete	Min. 1-inch Insulfoam I	Helix Max LRA (FULL or RIBBON)	Min. 0.5-inch HP Recovery Board	Helix Max LRA (FULL or RIBBON)	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-90.0
C-40.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulLam (WF)	Helix Max LRA (FULL)	None	N/A	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-90.0
C-41.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	(Optional) Additional layers of base insulation	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-157.5
C-42.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1 or Poly ISO 2	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	(Optional) Additional layers of base insulation	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-165.0
C-43.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1 or Poly ISO 2	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	Min. 0.25-inch DensDeck Prime	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-165.0
C-44.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1 or Poly ISO 2	Helix 2 LRA, Helix Max LRA (FULL)	(Optional) Additional layers of base insulation	Helix 2 LRA, Helix Max LRA (FULL)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Aqua Base 120 BA	-232.5
C-45.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1	Helix 2 LRA-DT (RIBBON)	(Optional) Additional layers of base insulation	Helix 2 LRA-DT (RIBBON)	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-112.5

**TABLE 3A: CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**  
 NOTE: REFER TO NOTE 16 FOR VAPOR BARRIER OPTIONS

System No.	Roof Deck	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf)
		Type	Attach (Notes 6,7&8)	Type	Attach (Notes 6,7&8)	Membrane	Application	
C-46.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, SecurShield, H-Shield CG	Helix 2 LRA-DT (RIBBON)	Min. 0.25-inch DensDeck Prime	Helix 2 LRA-DT (RIBBON)	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-112.5
C-47.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1	Helix 2 LRA-DT (FULL)	(Optional) Additional layers of base insulation	Helix 2 LRA-DT (FULL)	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-165.0
C-48.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, SecurShield, H-Shield CG	Helix 2 LRA-DT (FULL)	Min. 0.25-inch DensDeck Prime	Helix 2 LRA-DT (FULL)	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-165.0
C-49.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1	Helix 2 LRA-DT (FULL)	(Optional) Additional layers of base insulation	Helix 2 LRA-DT (FULL)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Aqua Base 120 BA	-232.5
C-50.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 2, Poly ISO 1	OB500	(Optional) Additional layers of base insulation	OB500	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-105.0
C-51.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 2, Poly ISO 1	OB500	Min. 0.5-inch HP Recovery Board	OB500	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-90.0
C-52.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 2, Poly ISO 1	OB500	Min. 0.25-inch DensDeck Prime	OB500	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-150.0
<b>MEMBRANE APPLIED IN LOW VOC BONDING ADHESIVE:</b>								
C-53.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, H-Shield	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix 2 LRA, Helix Max LRA (FULL or RIBBON)	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Low VOC Bonding Adhesive	-75.0
C-54.	Min. 2,500 psi structural concrete	Min. 1.5-inch Insulam (GYP)	Helix Max LRA (FULL)	None	N/A	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Low VOC Bonding Adhesive	-75.0
C-55.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch SecurShield or H-Shield CG	Helix 2 LRA, Helix Max LRA (RIBBON)	Min. 1.5-inch Poly ISO 1-HD Composite, SecurShield HD Composite or H-Shield HD Composite	Helix 2 LRA, Helix Max LRA (RIBBON)	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Low VOC Bonding Adhesive	-285.0
C-56.	Min. 2,500 psi structural concrete	Min. 1.5-inch Insulfoam HD Composite	Helix Max LRA (FULL)	None	N/A	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Low VOC Bonding Adhesive	-472.5

**TABLE 3A: CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

NOTE: REFER TO NOTE 16 FOR VAPOR BARRIER OPTIONS

System No.	Roof Deck	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf)
		Type	Attach (Notes 6,7&8)	Type	Attach (Notes 6,7&8)	Membrane	Application	
C-57.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch SecurShield or H-Shield CG	Helix 2 LRA, Helix Max LRA (FULL)	Min. 1.5-inch Poly ISO 1-HD Composite	Helix 2 LRA, Helix Max LRA (FULL)	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Low VOC Bonding Adhesive	-495.0
<b>MEMBRANE APPLIED IN HELIX 2 LRA, HELIX MAX LRA, HELIX 2 LRA-DT:</b>								
C-58.	Min. 2,500 psi structural concrete	Min. 1-inch Insulfoam I	Helix Max LRA (RIBBON)	Min. 0.5-inch HP Recovery Board	Helix Max LRA (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-142.5
C-59.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1 or Poly ISO 2	Helix 2 LRA, Helix Max LRA (RIBBON)	Min. 0.5-inch HP Recovery Board	Helix 2 LRA, Helix Max LRA (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-157.5
C-60.	Min. 2,500 psi structural concrete	Min. 1.5-inch Kingspan GreenGuard or Min. 1.0-inch Dow STYROFOAM ROOFMATE	Helix 2 LRA, Helix Max LRA (RIBBON)	Min. 0.5-inch HP Recovery Board	Helix 2 LRA, Helix Max LRA (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-157.5
C-61.	Min. 2,500 psi structural concrete	(Optional) Poly ISO 1, or AC Foam II	Helix 2 LRA, Helix Max LRA (FULL)	Poly ISO 1-NB	Helix 2 LRA, Helix Max LRA (FULL)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA, Helix 2 LRA-DT (FULL)	-187.5
C-62.	Min. 2,500 psi structural concrete	Min. 0.5-inch HP Recovery Board	Helix Max LRA (RIBBON)	None	N/A	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-202.5
C-63.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, or AC Foam II	Helix 2 LRA, Helix Max LRA (RIBBON)	Min. 7/16-inch APA rated OSB or min. 0.25-inch DensDeck or DensDeck Prime	Helix 2 LRA, Helix Max LRA (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-240.0
C-64.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, or AC Foam II	Helix 2 LRA, Helix Max LRA (RIBBON)	Min. 7/16-inch APA rated OSB or min. 0.25-inch DensDeck Prime	Helix 2 LRA, Helix Max LRA (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA-DT (FULL)	-240.0
C-65.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulLam (WF)	Helix Max LRA (FULL)	None	N/A	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-255.0
C-66.	Min. 2,500 psi structural concrete	Min. 1-inch Insulfoam I	Helix Max LRA (FULL)	Min. 0.5-inch HP Recovery Board	Helix Max LRA (FULL)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-300.0
C-67.	Min. 2,500 psi structural concrete	Min. 1-inch FM Approved EPS (BASF, NOVA, or Huntsman beads)	Helix 2 LRA, Helix Max LRA (FULL)	Min. 0.5-inch HP Recovery Board	Helix 2 LRA, Helix Max LRA (FULL)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-322.5

**TABLE 3A: CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**  
 NOTE: REFER TO NOTE 16 FOR VAPOR BARRIER OPTIONS

System No.	Roof Deck	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf)
		Type	Attach (Notes 6,7&8)	Type	Attach (Notes 6,7&8)	Membrane	Application	
C-68.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1 or Poly ISO 2	Helix 2 LRA, Helix Max LRA (FULL)	Min. 0.5-inch HP Recovery Board	Helix 2 LRA, Helix Max LRA (FULL)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-330.0
C-69.	Min. 2,500 psi structural concrete	Min. 1.5-inch Kingspan GreenGuard or Min. 1.0-inch Dow STYROFOAM ROOFMATE	Helix 2 LRA, Helix Max LRA (FULL)	Min. 0.5-inch HP Recovery Board	Helix 2 LRA, Helix Max LRA (FULL)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-330.0
C-70.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, or AC Foam II	Helix 2 LRA, Helix Max LRA (FULL)	Min. 7/16-inch APA rated OSB or min. 0.25-inch DensDeck Prime	Helix 2 LRA, Helix Max LRA (FULL)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA-DT (FULL)	-382.5
C-71.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, or AC Foam II	Helix 2 LRA, Helix Max LRA (FULL)	Min. 7/16-inch APA rated OSB or min. 0.25-inch DensDeck or DensDeck Prime	Helix 2 LRA, Helix Max LRA (FULL)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-457.5
C-72.	Min. 2,500 psi structural concrete	Min. 1.5-inch Insullam (OSB)	Helix Max LRA (FULL)	None	N/A	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-457.5
C-73.	Min. 2,500 psi structural concrete	Elastospray 81255 spray applied to min. 1.5-inch thick	N/A	None	N/A	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA (FULL).	-495.0
C-74.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, SecurShield, H-Shield CG	Helix 2 LRA-DT (RIBBON)	Poly ISO 1-NB	Helix 2 LRA-DT (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA, Helix 2 LRA-DT (FULL)	-112.5
C-75.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, SecurShield, H-Shield CG	Helix 2 LRA-DT (RIBBON)	Min. 7/16-inch APA rated OSB or min. 0.25-inch DensDeck Prime	Helix 2 LRA-DT (RIBBON)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA, Helix 2 LRA-DT (FULL)	-112.5
C-76.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, SecurShield, H-Shield CG	Helix 2 LRA-DT (FULL)	Poly ISO 1-NB	Helix 2 LRA-DT (FULL)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA, Helix 2 LRA-DT (FULL)	-187.5
C-77.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, SecurShield, H-Shield CG	Helix 2 LRA-DT (FULL)	Min. 7/16-inch APA rated OSB or min. 0.25-inch DensDeck Prime	Helix 2 LRA-DT (FULL)	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA, Helix 2 LRA-DT (FULL)	-382.5

**TABLE 3B: CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)  
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER**

System No.	Roof Deck	Roof Cover (Note 15)		MDP (psf)
		Membrane	Application	
C-78.	Min. 2,500 psi structural concrete	Mule-Hide White-on-Black EPDM	Mule-Hide Bonding Adhesive	-240.0
C-79.	Min. 2,500 psi structural concrete	Mule-Hide Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-240.0
C-80.	Min. 2,500 psi structural concrete	Mule-Hide Standard Black EPDM	Mule-Hide Bonding Adhesive	-315.0
C-81.	Min. 2,500 psi structural concrete	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL).	-495.0

**TABLE 4A: LIGHTWEIGHT CONCRETE OVER STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION  
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER**

System No.	Deck (Note 1)	LWC (Note 15)		Roof Cover (Note 15)		MDP (psf)
		Type	Surface Treatment	Membrane	Application	
<b>CELCORE (FL2037):</b>						
<b>MEMBRANE APPLIED IN HELIX 2 LRA, HELIX MAX LRA:</b>						
LWC-1	Min. 22 ga., Type BV, Grade 33 steel; max. 6 ft spans	Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete.	(Optional) Celcore PVA Curing Compound	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-60.0
LWC-2	Min. 22 ga., Type BV, Grade 33 steel; max. 4 ft spans.	Min. 38 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture.	Celcore PVA Curing Compound	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-67.5
LWC-3	Min. 22 ga., Type BV, Grade 33 steel; max. 6 ft spans	Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete. When walkable, LWIC is attached with Mule-Hide HDP Fastener with Mule-Hide 3 in. Insulation Plate at a density of 1 per 9 ft <sup>2</sup> .	(Optional) Celcore PVA Curing Compound	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-67.5
LWC-4	Min. 22 ga., Type BV, Grade 33 steel; max. 6 ft spans	Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete. When walkable, LWIC is attached with Mule-Hide HDP Fastener with Mule-Hide 3 in. Insulation Plate at a density of 1 per 1.0 ft <sup>2</sup> .	(Optional) Celcore PVA Curing Compound	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-120.0
<b>ELASTIZELL (FL4994):</b>						
<b>MEMBRANE APPLIED IN HELIX 2 LRA, HELIX MAX LRA:</b>						
LWC-5	Min. 22 ga., Type BV, Grade 33 steel; max. 6 ft spans.	Min. 27 pcf wet cast density, min. 250 psi, min. 2-inch thick, Elastizell Range II LWIC	None	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-30.0
LWC-6	Min. 22 ga., Type BV, Grade 33 steel; max. 5 ft spans.	Min. 27 pcf wet cast density, min. 250 psi, min. 2-inch thick, Elastizell Range II LWIC	None	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-45.0
LWC-7	Min. 22 ga., Type BV, Grade 33 steel; max. 5 ft spans; primed with Zell Bonding Agent.	Min. 27 pcf wet cast density, min. 250 psi, min. 2-inch thick, Elastizell Range II LWIC	None	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-60.0
LWC-8	Min. 2,500 psi structural concrete	Min. 27 pcf wet cast density, min. 250 psi, min. 2-inch thick, Elastizell Range II LWIC	None	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA (FULL)	-90.0



**TABLE 5A: RECOVER APPLICATIONS**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

System No.	Substrate (Notes 1& 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf)
		Type	Attach (Notes 6,7&8)	Type	Attach (Notes 6,7&8)	Membrane	Application	
<b>MEMBRANE APPLIED IN MULE-HIDE BONDING ADHESIVE:</b>								
R-1	Existing asphaltic BUR	Min. 1.5-inch Poly ISO 2, ACFoam III, Poly ISO 1	Hot Asphalt	(Optional) Additional layers of base insulation	Hot Asphalt	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-330.0
R-2	Existing asphaltic BUR	Min. 1.5-inch Poly ISO 2, ACFoam III, Poly ISO 1	Hot Asphalt	Min 0.5-inch HP Recovery Board, GP High Density Roof Fiberboard or Temple Fiber Base HD1 or HD6	Hot Asphalt	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-330.0
R-3	Existing asphaltic BUR	Min. 1.5-inch Poly ISO 2, ACFoam III, Poly ISO 1	Hot Asphalt	Min. 0.25-inch DensDeck, DensDeck Prime	Hot Asphalt	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-352.5
R-4	Existing asphaltic BUR or mineral surface cap	Min. 1.5-inch Poly ISO 2, ACFoam III, Poly ISO 1	OB500	(Optional) Additional layers of base insulation	OB500	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-120.0
R-5	Existing asphaltic BUR or mineral surface cap	Min. 1.5-inch Poly ISO 2, ACFoam III, Poly ISO 1	OB500	Min 0.5-inch HP Recovery Board, GP High Density Roof Fiberboard or Temple Fiber Base HD1 or HD6 or min. 0.25-inch DensDeck or DensDeck Prime	OB500	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-120.0
R-6	Existing asphaltic BUR or mineral surface cap	Min. 1.0-inch Foamular 250 or STYROFOAM DECKMATE Plus FA or min. 2.0-inch, min. 1.0 pcf, Insulfoam	OB500	Min 0.5-inch HP Recovery Board, GP High Density Roof Fiberboard or Temple Fiber Base HD1 or HD6 or min. 0.25-inch DensDeck or DensDeck Prime	OB500	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-120.0
R-7	Existing asphaltic BUR or mineral surface cap	Min. 1.0-inch Foamular 250	OB500	Min. 0.25-inch DensDeck or DensDeck Prime	OB500	Mule-Hide Standard Black EPDM, White-on-Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Bonding Adhesive	-120.0
<b>MEMBRANE APPLIED IN AQUA BASE 120 BA ADHESIVE:</b>								
R-8	Existing asphaltic BUR	Min. 1.5-inch Poly ISO 2, Poly ISO 1	Hot Asphalt	(Optional) Additional layers of base insulation	Hot Asphalt	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-165.0
R-9	Existing asphaltic BUR	(Optional) Min. 1.5-inch Poly ISO 2, Poly ISO 1	Hot Asphalt	Min. 0.5-inch HP Recovery Board	Hot Asphalt	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-90.0

**TABLE 5A: RECOVER APPLICATIONS**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

System No.	Substrate (Notes 1& 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf)
		Type	Attach (Notes 6,7&8)	Type	Attach (Notes 6,7&8)	Membrane	Application	
R-10	Existing asphaltic BUR	(Optional) Min. 1.5-inch Poly ISO 2, Poly ISO 1	Hot Asphalt	Min. 0.25-inch DensDeck Prime	Hot Asphalt	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-165.0
R-11	Existing asphaltic BUR or mineral surface cap	Min. 1.5-inch Poly ISO 2, Poly ISO 1	OB500	(Optional) Additional layers of base insulation	OB500	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-105.0
R-12	Existing asphaltic BUR or mineral surface cap	(Optional) Min. 1.5-inch Poly ISO 2, Poly ISO 1	OB500	Min. 0.5-inch HP Recovery Board	OB500	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-90.0
R-13	Existing asphaltic BUR or mineral surface cap	(Optional) Min. 1.5-inch Poly ISO 2, Poly ISO 1	OB500	Min. 0.25-inch DensDeck Prime	OB500	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Aqua Base 120 BA	-150.0
<b>MEMBRANE APPLIED IN LOW VOC BONDING ADHESIVE:</b>								
R-14	Existing asphaltic BUR or mineral surface cap	Min. 0.5-inch Poly ISO 1, H-Shield	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Low VOC Bonding Adhesive	-75.0*
R-15	Existing asphaltic BUR or mineral surface cap	Min. 1.5-inch Insulam (GYP)	OB500	None	N/A	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Low VOC Bonding Adhesive	-75.0*
R-16	Existing asphaltic BUR or mineral surface cap	Min. 1.5-inch Insulfoam HD Composite	OB500	None	N/A	Mule-Hide Standard Black EPDM, Standard Reinforced EPDM or FR Reinforced EPDM	Mule-Hide Low VOC Bonding Adhesive	-120.0*

**TABLE 5B: RECOVER APPLICATIONS**  
**SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER**

System No.	Substrate (Notes 1 & 12)	Roof Cover (Note 15)		MDP (psf)
		Membrane	Application	
R-17	Existing, fully-adhered EPDM roof cover over insulated steel deck	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA Adhesive (RIBBON 12-inch o.c.)	-30.0
R-18	Existing, fully-adhered EPDM roof cover over insulated steel deck	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA Adhesive (RIBBON 6-inch o.c. or FULL)	-75.0
R-19	Existing, fully-adhered EPDM roof cover over insulated or non-insulated structural concrete deck	Mule-Hide Standard EPDM Fleece-Backed or White-on-Black Fleece-Backed	Helix 2 LRA, Helix Max LRA Adhesive (FULL)	-315.0