



**NEMO|etc.**

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ENGINEER

EVALUATE

TEST

CONSULT

**P.E. EVALUATION REPORT (PEER)**

**Mule-Hide Products Co., Inc.**

1195 Prince Hall Drive, Suite A  
Beloit, WI 53511-5481  
**(608) 365-3111**

**PEER-MHCRL-003.A.R12**  
**FL12772-R11 (NON-HVHZ)**  
**Date of Issuance: 06/24/2009**  
**Revision 12: 10/07/2023**

**SCOPE:**

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

**DESCRIPTION: Mule-Hide TPO-c Roof Systems (NON-HVHZ)**

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

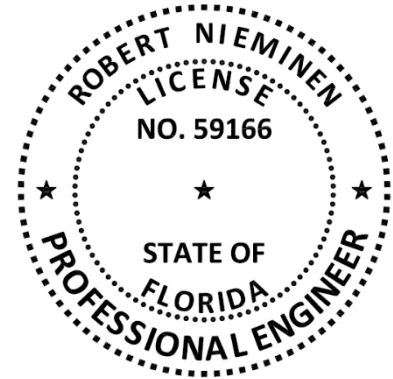
**CONTINUED COMPLIANCE:** This PEER is valid until such time as the named product(s) changes, the referenced Quality Assurance or production facility location(s) changes, or Code provisions that relate to the product(s) change. Acceptance of our PEERs by the named client constitutes agreement to notify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

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

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

This PEER consists of pages 1 through 4, plus 97-pages of Appendix.

**Prepared by:**



**CERTIFICATION OF INDEPENDENCE:**

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

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

**Product Category:** Roofing  
**Sub-Category:** Single Ply Roof Systems  
**Product Approval Method:** Method 1, Option D – Codified Material, Evaluation by Engineer  
**Compliance Statement:** **Mule-Hide TPO-c Roof Systems**, as produced by **Mule-Hide Products Co., Inc.** have demonstrated compliance with the following sections of the **8<sup>th</sup> Edition (2023) Florida Building Code** through testing in accordance with the following Standards. Compliance is subject to the [Installation Requirements](#) and [Limitations 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	2015
1504.6	Physical properties	ASTM G155	2013
1504.7	Impact resistance	FM 4470	2016
1507.12.2	Material standard	ASTM D6878	2021

**3. REFERENCES:**

Entity	Examination	Reference	Date
NEMO	PEER	PEER-CRL-003.A.R31	09/29/2023
FM Approvals (TST1867)	FM 4474	PR451160	03/12/2020
UL LLC (QUA9625)	Quality Assurance	Service confirmation	07/06/2022
UL LLC (QUA9625)	Quality Assurance	Florida BCIS	Current

**4. PRODUCT DESCRIPTION:**

This PEER covers **Mule-Hide TPO-c Roof Systems** installed in accordance with **Mule-Hide Products Co., Inc.** published installation instructions and the [Limitations of Use](#) herein.

**TABLE 1: EVALUATED MEMBRANES**

Product	Nominal Thickness (mil)	Material Standard	Plant(s)
Mule-Hide TPO-c	45, 60	ASTM D6878	MS, PA, UT
Mule-Hide TPO-c Extra	80		MS, PA, UT
Mule-Hide TPO-c (FR)	60, 80		MS
Mule-Hide TPO-c Fleece Back	45, 60, 80		MS
	60		UT
Mule-Hide TPO-c Fleece Back Plus	45, 60, 80		MS
Mule-Hide SA-TPO	60, 80		UT
Mule-Hide TPO-c Fleece Back RL	60		MS

## 5. LIMITATIONS:

- 5.1 This is a building code evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this PEER, or previous versions thereof, is/was used for permitting or design guidance. PEERs are not to be construed as representing any attributes not specifically listed, nor are PEERs to be construed as an endorsement of the subject, or a recommendation for its use. There is no warranty by NEMO ETC, LLC or Robert Nieminen, P.E., express or implied, as to any finding or other matter in this PEER, or as to any product covered by the PEER.
- 5.2 This PEER is not for use in FBC High Velocity Hurricane Zone jurisdictions, as defined in FBC Chapter 2 (Broward and Miami-Dade Counties).
- 5.3 This PEER pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction.
- 5.4 This PEER 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 PEER 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](#) or [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** 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 PEER.

**6. INSTALLATION:**

**Mule-Hide TPO-c Roof Systems** shall be installed in accordance with **Mule-Hide Products Co., Inc.** published installation instructions, subject to the [Limitations 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](#); (360) 817-5512; [bsai.inspections@ul.com](mailto:bsai.inspections@ul.com)

**- THE 97-PAGES THAT FOLLOW FORM PART OF THIS PEER -**

FBC NON-HVHZ

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

TABLE	DECK	APPLICATION	TYPE	DESCRIPTION	PAGE
<a href="#">1A</a>	Wood	New, Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	6
<a href="#">1B</a>	Wood	New, Reroof (Tear-Off), Recover	B-1	Mechanically Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	7
<a href="#">1C</a>	Wood	New, Reroof (Tear-Off), Recover	B-1	Mechanically Attached Base Insulation, Bonded Top Insulation, Bonded Base Ply, Bonded Roof Cover	9
<a href="#">1D</a>	Wood	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover	10
<a href="#">1E</a>	Wood	New, Reroof (Tear-Off), Recover	C-2	Mechanically Attached Insulation, Induction Welded Roof Cover	12
<a href="#">1F</a>	Wood	New, Reroof (Tear-Off), Recover	D-1	Insulated, Mechanically Attached Roof Cover	14
<a href="#">1G</a>	Wood	New, Reroof (Tear-Off), Recover	D-2	Non-Insulated, Mechanically Attached Base Sheet, Bonded Roof Cover	14
<a href="#">1H</a>	Wood	New, Reroof (Tear-Off), Recover	E-1	Non-Insulated, Mechanically Attached Roof Cover	14
<a href="#">1I</a>	Wood	New, Reroof (Tear-Off), Recover	E-2	Non-Insulated, Mechanically Attached Base Sheet, Bonded Roof Cover	15
<a href="#">2A</a>	Steel	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	15
<a href="#">2B</a>	Steel or structural concrete	New, Reroof (Tear-Off), Recover	B-1	Mechanically Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	17
<a href="#">2C</a>	Steel or structural concrete	New, Reroof (Tear-Off), Recover	B-1	Mechanically Attached Base Insulation, Bonded Top Insulation, Bonded Base Ply, Bonded Roof Cover	26
<a href="#">2D</a>	Steel	New, Reroof (Tear-Off), Recover	B-2	Mechanically Attached Thermal Barrier, Bonded Vapor Barrier, Bonded Insulation, Bonded Roof Cover	27
<a href="#">2E</a>	Steel or structural concrete	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover	30
<a href="#">2F</a>	Steel or structural concrete	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Base Ply, Bonded Roof Cover	39
<a href="#">2G</a>	Steel	New, Reroof (Tear-Off), Recover	C-2	Mechanically Attached Insulation, Induction Welded Roof Cover	40
<a href="#">2H</a>	Steel or structural concrete	New, Reroof (Tear-Off), Recover	D-1	Insulated, Mechanically Attached Roof Cover (Stress Plate)	45
<a href="#">2I</a>	Steel or structural concrete	New, Reroof (Tear-Off), Recover	D-1	Insulated, Mechanically Attached Roof Cover (RUSS Strips)	47
<a href="#">3A</a>	Structural concrete	New, Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	47
<a href="#">3B</a>	Structural concrete	New, Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Base Ply, Bonded Roof Cover	65
<a href="#">3C</a>	Structural concrete	New, Reroof (Tear-Off), Recover	C-2	Mechanically Attached Insulation, Induction Welded Roof Cover	66
<a href="#">3D</a>	Structural concrete	New, Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	68
<a href="#">4A</a>	Lightweight concrete	New, Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	69
<a href="#">4B</a>	Lightweight concrete	New, Reroof (Tear-Off)	B-3	Mechanically Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	71
<a href="#">4C</a>	Lightweight concrete / steel	New, Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	72
<a href="#">4D</a>	Lightweight concrete / concrete	New, Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	75
<a href="#">5A</a>	Cementitious wood fiber	New, Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	76
<a href="#">5B</a>	Cementitious wood fiber	New, Reroof (Tear-Off), Recover	B-3	Mechanically Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	79
<a href="#">6A</a>	Existing gypsum	Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	80
<a href="#">6B</a>	Existing gypsum	Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	81
<a href="#">7A</a>	Various	Recover	A-1	Bonded Insulation, Bonded Roof Cover	82
<a href="#">7B</a>	Various	Recover	A-1	Bonded Insulation, Bonded Base Ply, Bonded Roof Cover	88
<a href="#">7C</a>	Steel	Recover	C-2	Mechanically Attached Insulation, Induction Welded Roof Cover	90
<a href="#">7D</a>	Steel	Recover	D-1	Insulated, Mechanically Attached Roof Cover	91
<a href="#">7E</a>	Steel	Recover	D-2	Insulated, Mechanically Attached Roof Cover (RUSS Strips)	92
<a href="#">7F</a>	Various	Recover	E-1	Non-Insulated, Mechanically Attached Roof Cover	93
<a href="#">7G</a>	Various	Recover	F-1	Non-Insulated, Bonded Roof Cover	95
<a href="#">7H</a>	Various	Recover	F-2	New LWC over Existing Roof, Bonded Roof Cover	95
<a href="#">8A/8B</a>	Guidance / Limitations for use of Hilti fasteners in Type B steel deck securement beneath Mule-Hide roof systems				97

The following notes apply to the systems outlined herein:

- 1 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.
  - As-tested roof cover performance in accordance with FM 4474 and TAS 114, Appendix J indicates min. 22 ga., Type B, Grade 40 steel deck at max. 6 ft spans attached with 5/8-inch diameter puddle welds spaced 6" o.c., with deck side laps secured max. 24" o.c. w/ 1/4"-14x1" long self-tapping hex-head screws, may be used for roof assemblies over steel deck up to a maximum design pressure of -60.0 psf. This does not preclude Note 1 above.
  - Tables [8A](#) and [8B](#) provide guidance / limitations associated with use of fasteners from Hilti, Inc. to secure steel decking to structural members
- 2 Unless otherwise noted, fasteners and stress plates shall be as follows. Fastener shall be of sufficient length for the following engagements:

FASTENER/PLATE OPTIONS				
DECK TYPE	BY	FBC FILE NO.	PARTS	MINIMUM ENGAGEMENT
Wood	Mule-Hide	N/A	Mule-Hide HDP Fastener with Mule-Hide 3" Insulation Plate	Minimum 1-inch wood penetration
Steel	Mule-Hide	N/A	Mule-Hide HDP Fastener with Mule-Hide 3" Insulation Plate	Minimum 3/4-inch steel penetration, engage the top flute of the steel deck.
Structural Concrete	Mule-Hide	N/A	Mule-Hide HDP Fastener, Mule-Hide Fluted Concrete Nail or Mule-Hide Tru-Spike Fastener with Mule-Hide 3" Insulation Plate.	Minimum 1-inch embedment. Fastener installed with a pilot hole in accordance with the fastener manufacturer's published installation instructions.

- 3 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.
- 4 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.
- 5 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. For systems where a vapor barrier is installed, refer to Table 6 of [FM Loss Prevention Data Sheet](#) 1-29. For systems where no vapor barrier is installed, Mule-Hide Drill Point Fastener may be used in place of Mule-Hide HDP Fastener for preliminary attachment purposes over wood and steel deck.
- 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.
  - When multiple layers(s) of insulation and/or coverboard are installed in ribbon-applied adhesive, board joints shall be staggered.
  - 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.
  - "FULL" or "SPLATTER" applications may be used wherever "RIBBON" is referenced for insulation securement.

INSULATION ADHESIVE REFERENCES			
ADHESIVE	METHOD	REFERENCE	MINIMUM RATE
Hot asphalt	full-coverage	Hot asphalt	Full-coverage at 25 lbs/square
Helix Max Low-Rise Adhesive	full-coverage	Helix Max LRA (FULL)	Continuous ribbons, 4-inch o.c. or spray-applied at 1 gal./square
Helix Max Low-Rise Adhesive	splatter-applied	Helix Max LRA (SPLATTER)	Splatter-applied at 0.5 gal/square (wet) = 4.7 lb/square (dry)
Helix Max Low-Rise Adhesive	ribbon-applied	Helix Max LRA (RIBBON)	Continuous ribbons, 12-inch o.c.
Helix Max Low-Rise Adhesive – Dual Tank	full-coverage	Helix Max LRA-DT (FULL)	Continuous ribbons, 4-inch o.c. or spray-applied at 1 gal./square
Helix Max Low-Rise Adhesive – Dual Tank	splatter-applied	Helix Max LRA-DT (SPLATTER)	Splatter-applied at 0.4 gal/square (wet) = 3.7 lb/square (dry)
Helix Max Low-Rise Adhesive – Dual Tank	ribbon-applied	Helix Max LRA-DT (RIBBON)	Continuous ribbons, 12-inch o.c.
OlyBond 500	ribbon-applied	OB500	Continuous 0.75-inch wide ribbons, 12-inch o.c. (PaceCart, SpotShot or Canister)

- 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.

MDP LIMITATIONS FOR TAPERED POLYISOCYANURATE INSULATIONS				
ADHESIVE	INSULATION		MIN. TAPERED THICKNESS (IN)	MDP (psf)
	LISTED PRODUCT	FBC FILE		
Helix Max LRA	Any polyisocyanurate listed with adhesive herein	Various	0.5	-157.5
OB500	Any polyisocyanurate listed with adhesive herein	Various	0.5	-187.5

- 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.
- 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 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 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 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 the base insulation layer is optional and for System Type 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 bonded membrane applications, unless otherwise noted, refer to the following.

MEMBRANE / ADHESIVE COMBINATIONS				
MEMBRANE	ADHESIVE	REFERENCE	APPLICATION	RATE
Mule-Hide TPO-c or Mule-Hide TPO-c (FR)	Mule-Hide TPO-c Bonding Adhesive	TPO-c BA	Contact (both sides)	0.83 gal/square per surface [(1.66 gal/square (60 ft <sup>2</sup> /gal) finish]
Mule-Hide TPO-c or Mule-Hide TPO-c (FR)	Aqua Base 120 Bonding Adhesive	Aqua Base 120	Contact (both sides)	0.42 gal/square per surface [0.84 gal/square (120 ft <sup>2</sup> /gal) finish]
Mule-Hide TPO-c or Mule-Hide TPO-c (FR)	Mule-Hide Low VOC Bonding Adhesive	LVOC BA	Contact (both sides)	0.83 gal/square per surface [(1.66 gal/square (60 ft <sup>2</sup> /gal) finish]
Mule-Hide TPO-c	AeroWeb Low-VOC Contact Adhesive	AeroWeb	Contact (both sides)	0.225 gal/square per surface [0.45 gal/square (222 ft <sup>2</sup> /gal) finish]
Mule-Hide TPO-c Fleece Back	Aqua Base 120 Bonding Adhesive	Aqua Base 120	Wet lay (substrate)	0.83 gal/square (120 ft <sup>2</sup> /gal)
Mule-Hide TPO-c Fleece Back	HydroBond Water-Based Adhesive	HydroBond W-B	Wet lay (substrate)	0.75 to 1 gal/square (100 to 133 ft <sup>2</sup> /gal)



MEMBRANE / ADHESIVE COMBINATIONS				
MEMBRANE	ADHESIVE	REFERENCE	APPLICATION	RATE
Mule-Hide TPO-c Fleece Back	Helix Max Low-Rise Adhesive	Helix Max LRA	Wet lay (substrate)	RIBBON spaced as noted herein or FULL Coverage = 1 gal/square or continuous ribbons, maximum 4-inch o.c. or splatter-applied at 0.5 gal/square (wet) = 4.7 lb/square (dry)
Mule-Hide TPO-c Fleece Back	Helix Max Low-Rise Adhesive Dual Tank	Helix Max LRA-DT	Wet lay (substrate)	RIBBON spaced as noted herein or FULL Coverage = 1 gal/square, continuous ribbons, maximum 4-inch o.c. or splatter-applied at 0.4 gal/square (wet) = 3.7 lb/square (dry)
Mule-Hide TPO-c Fleece Back Plus	Carlisle Cold Applied Adhesive	C-CAA	Wet lay (substrate)	1.5 gal/square
Mule-Hide TPO-c Fleece Back Plus	Hot asphalt		Wet lay (substrate)	25 lbs/square
Mule-Hide TPO-c Fleece Back RL	VELCRO® Brand Securable Solutions		Only for use over InsulBase RL or SecurShield HD RL substrates. Roof cover is broomed into place and rolled with 150 lb roller to establish contact.	

- 15A 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.
- 15B For System Type C-2 (induction weld), care shall be taken to ensure that the plates do not line-up with membrane seams. This condition may preclude proper induction welding of the membrane to the plates.
- 15C For System Types A-1, B-1, B-2, B-3 or C-1 involving Mule-Hide TPO-c adhered in AeroWeb over Poly ISO 1-DWD, Poly ISO 1-HD, Poly ISO 1-HD Plus, G-P Gypsum “DensDeck Prime” or USG “SECUROCK Gypsum-Fiber Roof Board”, the top insulation layer may be optionally primed with Detec Systems “TruGround Conductive Primer”, roller-applied at 0.4 gal/square prior to membrane installation.
- 15D For System Types C-2, D-1 or D-2, the top insulation layer may be optionally primed with Detec Systems “TruGround Conductive Primer”, roller-applied at 0.4 gal/square prior to membrane installation. For System Type C-2, do not contaminate the induction weld stress plate with primer.
- 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 or 3B applies.

VAPOR BARRIER OPTIONS, STRUCTURAL CONCRETE DECK, ADHERED INSULATION					
OPTION #	PRIMER	VAPOR BARRIER		INSULATION ADHESIVE PER TABLE 3A OR 3B (Notes 6, 7 & 8)	MDP (PSF)*
		TYPE	APPLICATION		
C-VB-1.	702 Primer, 702 LV Primer, CAV-GRIP Primer or AeroWeb	F5 Air and Vapor Barrier	Self-adhering	Helix Max LRA (RIBBONS)	-157.5
C-VB-2.	702 Primer, 702 LV Primer, CAV-GRIP Primer or AeroWeb	F5 Air and Vapor Barrier	Self-adhering	Helix Max LRA-DT (RIBBONS)	-172.5
C-VB-3.	702 Primer, 702 LV Primer, CAV-GRIP Primer or AeroWeb	F5 Air and Vapor Barrier	Self-adhering	Helix Max LRA or Helix Max LRA-DT (RIBBONS, 6-inch o.c. or SPLATTER)	-270.0
C-VB-4.	CAV-GRIP Primer or AeroWeb	F5 Air and Vapor Barrier	Self-adhering	Helix Max LRA (FULL COVERAGE, 1 gal/square), Helix Max LRA (SPLATTER) or Helix Max LRA-DT (SPLATTER)	-427.5
C-VB-5.	ASTM D41	Carlisle SureMB 90 Base, SureMB 90 Poly Base or SureMB 120 Poly Base	Hot-asphalt	Hot asphalt at 25 lbs/square	-172.5
C-VB-6.	ASTM D41	Carlisle SureMB 90TG or 120TG Base	Torch-applied	Hot asphalt at 25 lbs/square	-180.0
C-VB-7.	None	Carlisle SureMB 90 Base, SureMB 90 Poly Base or SureMB 120 Poly Base	C-CAA, 1-inch ribbons, 12-inch o.c.	Helix Max LRA (RIBBON) or Helix Max LRA-DT (RIBBON)	-180.0
C-VB-8.	None	Carlisle SureMB 90 Base, SureMB 90 Poly Base or SureMB 120 Poly Base	C-CAA, 1-inch ribbons, 6-inch o.c.	Helix Max LRA (RIBBON, 6-inch o.c. or SPLATTER) or Helix Max LRA-DT (RIBBON, 6-inch o.c. or SPLATTER)	-255.0
C-VB-9.	ASTM D41	Carlisle SureMB 90TG or 120TG Base	Torch-applied	Helix Max LRA or Helix Max LRA-DT (RIBBON)	-307.5
C-VB-10.	ASTM D41	Carlisle SureMB 90TG or 120TG Base	Torch-applied	Helix Max LRA or Helix Max LRA-DT ((RIBBON, 6-inch o.c. or SPLATTER)	-495.0



16A Vapor barrier options for use over **Tectum Plank**, followed by bonded insulation carry the following MDP limitations. The lesser of the MDP listings below vs. that for the selected assembly applies:

VAPOR BARRIER OPTIONS, TECTUM PLAN DECKS, ADHERED INSULATION					
OPTION #	PRIMER	VAPOR BARRIER		INSULATION ADHESIVE PER TABLE <a href="#">5A</a> (NOTES 6, 7 & 8)	MDP (psf)
		TYPE	APPLICATION		
CWF-VB-1.	AeroWeb at 0.33 gal/square	SureMB 70 SA Base Ply or F5 Air and Vapor Barrier	Self-adhering	Helix Max LRA or Helix Max LRA-DT (FULL or SPLATER)	-350.0

17 The following products are interchangeable within the scope of this PEER:

ACCEPTABLE ALTERNATES			
SUB-CATEGORY	By	Listed Product	Alternate
MEMBRANE	Mule-Hide	Mule-Hide TPO-c	Mule-Hide TPO-c Extra and Mule-Hide TPO-c (FR)
	Mule-Hide	Mule-Hide TPO-c Fleece Back	Includes 100, 115 and 135
	Mule-Hide	Mule-Hide TPO-c Fleece Back Plus	Includes 120, 135 and 155
ROOFING INSULATION	Mule-Hide	Poly ISO 1	Carlisle "InsulBase" or "InsulBase NH" or Hunter Panels "H-Shield" or "H-Shield NH"
	Mule-Hide	Poly ISO 1-DWD	Carlisle "SecurShield" or "SecurShield NH" or Hunter Panels "H-Shield CG" or "H-Shield CG NH"
	Mule-Hide	Poly ISO 1-HD	Carlisle "SecurShield HD" or "SecurShield HD NH" or Hunter Panels "H-Shield HD" or "H-Shield HD NH"
	Mule-Hide	Poly ISO 1-HD Plus	Poly ISO 1-HD90 or Carlisle "SecurShield HD Plus" or "SecurShield HD Plus NH" or Hunter Panels "H-Shield HD90" or "H-Shield HD90 NH"
	Mule-Hide	Poly ISO 1-HD-Composite	Carlisle "SecurShield HD Composite" or Hunter Panels "H-Shield HD Composite"
	Mule-Hide	Poly ISO 1-NB	Carlisle "StormBase" or Hunter Panels "H-Shield NB"
	Georgia-Pacific Gypsum, LLC	"DensDeck Prime"	"DensDeck StormX Prime Roof Board"

18 For System Types B-1, B-2, C-1, C-2, D-1 or D-2, F5 Air and Vapor Barrier or Carlisle "VapAir Seal MD" may be installed atop the roof deck prior to installation of the insulation and roof cover. Refer to [FM Loss Prevention Data Sheet](#) 1-29 for design and installation recommendations.

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. ([Note 9](#) and [Note 10](#))

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

System No.	Deck (Note 1)	Vapor Barrier	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover (Note 15)		MDP (psf)
			Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Membrane	Application	
<b>MULE-HIDE TPO-C OR MULE-HIDE TPO-C (FR) MEMBRANE APPLICATIONS:</b>									
W-1.	7/16-inch APA rated OSB; 2 ft spans	None	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-45.0*
W-2.	7/16-inch APA rated OSB; 2 ft spans	None	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH, or min. 1.5-inch Poly ISO 1-HD-Composite or min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-45.0*
W-3.	Min. 15/32-inch APR rated CDX plywood; 2 ft spans	None	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-67.5
W-4.	Min. 15/32-inch APR rated CDX plywood; 2 ft spans	None	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH, or min. 1.5-inch Poly ISO 1-HD-Composite or min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-67.5
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>									
W-5.	7/16-inch APA rated OSB; 2 ft spans	None	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-45.0*
W-6.	7/16-inch APA rated OSB; 2 ft spans	None	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH, or min. 1.5-inch Poly ISO 1-HD-Composite or min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-45.0*

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

System No.	Deck ( <a href="#">Note 1</a> )	Vapor Barrier	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover ( <a href="#">Note 15</a> )		MDP ( <a href="#">psf</a> )
			Type	Attach ( <a href="#">Notes 6,7,8</a> )	Type	Attach ( <a href="#">Notes 6,7,8</a> )	Membrane	Application	
W-7.	Min. 15/32-inch APR rated CDX plywood; 2 ft spans	None	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-67.5
W-8.	Min. 15/32-inch APR rated CDX plywood; 2 ft spans	None	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH, or min. 1.5-inch Poly ISO 1-HD-Composite or min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-67.5

**TABLE 1B: WOOD 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 ( <a href="#">Note 1</a> )	Base Insulation Layer			Top Insulation Layer(s)		Roof Cover ( <a href="#">Note 15</a> )	MDP ( <a href="#">psf</a> )
		Type	Fastener ( <a href="#">Note 2</a> , <a href="#">Note 11</a> )	Attach	Type	Attach ( <a href="#">Notes 6,7,8</a> )		
<b>MULE-HIDE TPO-C OR MULE-HIDE TPO-C (FR) MEMBRANE APPLICATIONS:</b>								
W-9.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD or H-Shield CG	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.7 ft <sup>2</sup>	Additional layer(s), min. 1.5-inch base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-37.5
W-10.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD or H-Shield CG	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.7 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s), min. 1.5-inch base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board, min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD90 or EcoStorm VSH, min. 1.5-inch Poly ISO 1-HD-Composite or min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-37.5
W-11.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD or H-Shield CG	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.0 ft <sup>2</sup>	Additional layer(s), min. 1.5-inch base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-60.0

**TABLE 1B: WOOD 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 ( <a href="#">Note 1</a> )	Base Insulation Layer			Top Insulation Layer(s)		Roof Cover ( <a href="#">Note 15</a> )	MDP ( <a href="#">psf</a> )
		Type	Fastener ( <a href="#">Note 2</a> , <a href="#">Note 11</a> )	Attach	Type	Attach ( <a href="#">Notes 6,7,8</a> )		
W-12.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD or H-Shield CG	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s), min. 1.5-inch base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board, min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD90 or EcoStorm VSH, min. 1.5-inch Poly ISO 1-HD-Composite or min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-60.0
<b>MULE-HIDE TPO-c FLEECE BACK MEMBRANE APPLICATIONS (PARTIAL BOND):</b>								
W-13.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD or H-Shield CG	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.7 ft <sup>2</sup>	Additional layer(s), min. 1.5-inch base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-37.5
W-14.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD or H-Shield CG	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.7 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s), min. 1.5-inch base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-37.5
W-15.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD or H-Shield CG	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s), min. 1.5-inch base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD or Poly ISO 1-HD90	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	-60.0
<b>MULE-HIDE TPO-c FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>								
W-16.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD or H-Shield CG	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.7 ft <sup>2</sup>	Additional layer(s), min. 1.5-inch base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-37.5
W-17.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD or H-Shield CG	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.7 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s), min. 1.5-inch base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board, min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD90 or EcoStorm VSH, min. 1.5-inch Poly ISO 1-HD-Composite or min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-37.5

TABLE 1B: WOOD 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(s)		Roof Cover (Note 15)		MDP (psf)
		Type	Fastener (Note 2, Note 11)	Attach	Type	Attach (Notes 6,7,8)			
W-18.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD or H-Shield CG	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.0 ft <sup>2</sup>	Additional layer(s), min. 1.5-inch base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B		-60.0
W-19.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD or H-Shield CG	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s), min. 1.5-inch base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board, min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD90 or EcoStorm VSH, min. 1.5-inch Poly ISO 1-HD-Composite or min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B		-60.0
<b>MULE-HIDE TPO-C FLEECE BACK RL APPLICATIONS:</b>									
W-20.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD or H-Shield CG	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.7 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s), min. 1.5-inch base insulation <u>Coverboard:</u> Min. 0.5-inch SecurShield HD RL or min. 1.5-inch InsulBase RL	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back RL		-37.5
W-21.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD or H-Shield CG	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s), min. 1.5-inch base insulation <u>Coverboard:</u> Min. 0.5-inch SecurShield HD RL or min. 1.5-inch InsulBase RL	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back RL		-60.0

TABLE 1C: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER									
SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED BASE PLY, BONDED ROOF COVER									
System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer(s)		Roof Cover (Note 15)		MDP (psf)
		Type	Fastener (Note 2, Note 11)	Attach	Type	Attach (Notes 6,7,8)	Base Ply	Cap Ply	
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (PARTIAL BOND):</b>									
W-22.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD or H-Shield CG	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.7 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s), min. 1.5-inch base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-37.5

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

System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer(s)		Roof Cover (Note 15)		MDP (psf)
		Type	Fastener (Note 2, Note 11)	Attach	Type	Attach (Notes 6,7,8)	Base Ply	Cap Ply	
W-23.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD or H-Shield CG	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s), min. 1.5-inch base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	-60.0
<b>MULE-HIDE TPO-C FLEECE BACK PLUS MEMBRANE APPLICATIONS:</b>									
W-24.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD or H-Shield CG	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.7 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s), min. 1.5-inch base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	hot asphalt, Helix Max LRA (RIBBON) or Helix Max LRA-DT (RIBBON)	SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-37.5
W-25.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD or H-Shield CG	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s), min. 1.5-inch base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	hot asphalt, Helix Max LRA (RIBBON) or Helix Max LRA-DT (RIBBON)	SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-60.0

**TABLE 1D: 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 (Note 3, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fastener (Note 2, Note 11)	Attach		
<b>MULE-HIDE TPO-C OR MULE-HIDE TPO-C (FR) MEMBRANE APPLICATIONS:</b>							
W-26.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD, H-Shield CG, Poly ISO 1-DWD HD Composite or H-Shield HD Composite	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.7 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-37.5
W-27.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.0 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-37.5
W-28.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 4.0 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-45.0*
W-29.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.7 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-45.0



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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer <a href="#">(Note 3, Note 13)</a>	Top Insulation Layer			Roof Cover <a href="#">(Note 15)</a>	MDP <a href="#">(psf)</a>
			Type	Fastener <a href="#">(Note 2, Note 11)</a>	Attach		
W-30.	Min. 23/32-inch plywood; 2-ft spans	(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 TPO-c / AeroWeb or LVOC BA	-45.0*
W-31.	Min. 19/32-inch plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch Poly ISO 2, ACFoam II, Poly ISO 1, Poly ISO 1-DWD or ENRGY 3	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide TPO-c / Aqua Base 120, AeroWeb or TPO-c BA	-45.0*
W-32.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD, H-Shield CG, Poly ISO 1-HD-Composite or H-Shield HD Composite	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.0 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-60.0
W-33.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch DensDeck Prime	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.0 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-60.0
W-34.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch DensDeck Prime	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 1.8 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-67.5
W-35.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.0 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-75.0
<b>MULE-HIDE TPO-c FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>							
W-36.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD, H-Shield CG, Poly ISO 1-HD-Composite or H-Shield HD Composite	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.7 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-37.5
W-37.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-37.5
W-38.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 4.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-45.0*
W-39.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.7 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-45.0
W-40.	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 TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-45.0*

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

System No.	Deck ( <a href="#">Note 1</a> )	Base Insulation Layer ( <a href="#">Note 3, Note 13</a> )	Top Insulation Layer			Roof Cover ( <a href="#">Note 15</a> )	MDP ( <a href="#">psf</a> )
			Type	Fastener ( <a href="#">Note 2, Note 11</a> )	Attach		
W-41.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 2-inch Poly ISO 1, H-Shield, Poly ISO 1-DWD, H-Shield CG, Poly ISO 1-HD-Composite or H-Shield HD Composite	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-60.0
W-42.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch DensDeck Prime	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-60.0
W-43.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch DensDeck Prime	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 1.8 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-67.5
W-44.	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 2.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-75.0

**TABLE 1E: WOOD DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER  
SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER**

System No.	Deck ( <a href="#">Note 1</a> )	Insulation Layer ( <a href="#">Note 3, Note 13</a> )	Attachment		Roof Cover ( <a href="#">Note 15B</a> )	MDP ( <a href="#">psf</a> )
			Fastener ( <a href="#">Note 11</a> )	Density		
<b>RHINOBOND SYSTEMS:</b>						
W-45.	Min. 15/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 6 ft <sup>2</sup> (2 x 3 ft grid pattern)	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-22.5*
W-46.	Min. 15/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 4.0 ft <sup>2</sup> (2 x 2 ft grid pattern)	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-30.0
W-47.	Min. 15/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 4.0 ft <sup>2</sup> (2 x 2 ft grid pattern)	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-37.5*
W-48.	Min. 19/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 6 ft <sup>2</sup> (2 x 3 ft grid pattern)	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-45.0*
W-49.	Min. 15/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 2.7 ft <sup>2</sup> (12 parts per 4x8 ft board)	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-45.0

**TABLE 1E: WOOD DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER**  
**SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER**

System No.	Deck ( <a href="#">Note 1</a> )	Insulation Layer ( <a href="#">Note 3</a> , <a href="#">Note 13</a> )	Attachment		Roof Cover ( <a href="#">Note 15B</a> )	MDP ( <a href="#">psf</a> )
			Fastener ( <a href="#">Note 11</a> )	Density		
W-50.	Min. 15/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	6-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-60.0
W-51.	Min. 19/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 2.7 ft <sup>2</sup> (12 parts per 4x8 ft board)	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-67.5
<b>ISOWELD INDUCTION WELDING SYSTEM:</b>						
W-52.	Min. 15/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 6 ft <sup>2</sup> (2 x 3 ft grid pattern)	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-22.5*
W-53.	Min. 15/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 4.0 ft <sup>2</sup> (2 x 2 ft grid pattern)	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-30.0
W-54.	Min. 15/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 4.0 ft <sup>2</sup> (2 x 2 ft grid pattern)	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-37.5*
W-55.	Min. 19/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 6 ft <sup>2</sup> (2 x 3 ft grid pattern)	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-45.0*
W-56.	Min. 15/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 2.7 ft <sup>2</sup> (12 parts per 4x8 ft board)	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-45.0
W-57.	Min. 15/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	6-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-60.0
W-58.	Min. 19/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 2.7 ft <sup>2</sup> (12 parts per 4x8 ft board)	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-67.5

**TABLE 1F: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE D-1: INSULATED, MECHANICALLY ATTACHED ROOF COVER**

System No.	Deck (Note 1)	Insulation Layer (Note 3, Note 13)		Roof Cover (Note 15)						MDP (psf)
		Type	Attach (Note 5)	Membrane	Fastener (Note 11)	Fastener Spacing	Lap Width	Lap Spacing	Seam Weld	
W-59.	Min. 19/32-inch CDX plywood or wood plank; 2 ft spans	One or more layers, any combination	Prelim. Attach	Mule-Hide TPO-c, min. 60-mil or Mule-Hide TPO-c Fleece Back FR	Mule-Hide EHD Fastener with Mule-Hide 2.4" Seam Plate	12-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-22.5
W-60.	Min. 19/32-inch CDX plywood or wood plank; 2 ft spans	One or more layers, any combination	Prelim. Attach	Mule-Hide TPO-c Fleece Back	Mule-Hide EHD Fastener with Mule-Hide 2.4" Seam Plate	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-37.5
W-61.	Min. 19/32-inch CDX plywood or wood plank; 2 ft spans	One or more layers, any combination	Prelim. Attach	Mule-Hide TPO-c, min. 60-mil or Mule-Hide TPO-c Fleece Back FR	Mule-Hide EHD Fastener with Mule-Hide 2.4" Seam Plate	6-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-45.0
W-62.	Min. 19/32-inch plywood or wood plank; 2-ft spans	One or more layers, any combination	Prelim. attach	Mule-Hide TPO-c	Mule-Hide EHD Fastener with Mule-Hide 2.4" Seam Plate	6-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-52.5
W-63.	Min. 19/32-inch plywood or wood plank; 2-ft spans	One or more layers, any combination	Prelim. attach	Mule-Hide TPO-c	Mule-Hide EHD Fastener with Mule-Hide 2.4" Seam Plate	6-inch o.c.	5.5-inch	66.5-inch o.c.	1.5-inch outside	-67.5

**TABLE 1G: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

System No.	Deck (Note 1)	Insulation (Note 3, Note 13)		Base Sheet			Roof Cover (Note 15)		MDP (psf)
		Type	Attach	Base Sheet	Fastener (Note 11)	Attach	Membrane	Adhesive	
W-64.	Min. 19/32-inch plywood; 2-ft spans	One or more layers, any combination	Loose-laid	Atlas Summit Synthetic Underlayment	Mule-Hide Drill Point Fastener with Mule-Hide 2" Seam Plate	12-inch o.c. at the 4-inch laps and 12-inch o.c. at three, equally spaced rows in the center of the sheet.	Mule-Hide SA-TPO	Self-adhered	-120.0

**TABLE 1H: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE E-1: NON-INSULATED, MECHANICALLY ATTACHED ROOF COVER**

System No.	Deck (Note 1)	Thermal Barrier		Roof Cover (Note 15)						MDP (psf)
		Type	Attach (Note 5)	Membrane	Fastener (Note 11)	Fastener Spacing	Lap Width	Lap Spacing	Seam Weld	
W-65.	Min. 19/32-inch CDX plywood or wood plank; 2 ft spans	(Optional) Any approved thermal barrier	Prelim. Attach	Mule-Hide TPO-c, min. 60-mil or Mule-Hide TPO-c Fleece Back FR	Mule-Hide EHD Fastener with Mule-Hide 2.4" Seam Plate	12-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-22.5
W-66.	Min. 19/32-inch CDX plywood or wood plank; 2 ft spans	(Optional) Any approved thermal barrier	Prelim. Attach	Mule-Hide TPO-c Fleece Back	Mule-Hide EHD Fastener with Mule-Hide 2.4" Seam Plate	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-37.5

**TABLE 1H: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE E-1: NON-INSULATED, MECHANICALLY ATTACHED ROOF COVER**

System No.	Deck ( <a href="#">Note 1</a> )	Thermal Barrier		Roof Cover ( <a href="#">Note 15</a> )						MDP (psf)
		Type	Attach ( <a href="#">Note 5</a> )	Membrane	Fastener ( <a href="#">Note 11</a> )	Fastener Spacing	Lap Width	Lap Spacing	Seam Weld	
W-67.	Min. 19/32-inch CDX plywood or wood plank; 2 ft spans	(Optional) Any approved thermal barrier	Prelim. Attach	Mule-Hide TPO-c, min. 60-mil or Mule-Hide TPO-c Fleece Back FR	Mule-Hide EHD Fastener with Mule-Hide 2.4" Seam Plate	6-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-45.0
W-68.	Min. 19/32-inch plywood; 2-ft spans	(Optional) Any approved thermal barrier	Prelim. Attach	Mule-Hide TPO-c or Mule-Hide TPO-c Fleece Back FR	Mule-Hide EHD Fastener with Mule-Hide 2.4" Seam Plate installed through wood sheathing to engage structural members	6-inch o.c.	5.5-inch	48-inch o.c. (over structural members)	1.5-inch outside	-75.0

**TABLE 1I: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER  
SYSTEM TYPE E-2: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

System No.	Deck ( <a href="#">Note 1</a> )	Thermal Barrier		Base Sheet			Roof Cover ( <a href="#">Note 15</a> )		MDP (psf)
		Type	Attach	Base Sheet	Fastener ( <a href="#">Note 2</a> , <a href="#">Note 11</a> )	Attach	Membrane	Adhesive	
W-69.	Min. 19/32-inch plywood; 2-ft spans	(Optional) Any approved thermal barrier	Loose-laid	Atlas Summit Synthetic Underlayment	Mule-Hide Drill Point Fastener with Mule-Hide 2" Seam Plate	12-inch o.c. at the 4-inch laps and 12-inch o.c. at three, equally spaced rows in the center of the sheet.	Mule-Hide SA-TPO	Self-adhered	-120.0

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

System No.	Deck ( <a href="#">Note 1</a> )	Vapor Barrier	Base Insulation Layer		Top Insulation Layer		Roof Cover ( <a href="#">Note 15</a> )		MDP (psf)	
			Type	Attach ( <a href="#">Notes 6,7,8</a> )	Type	Attach ( <a href="#">Notes 6,7,8</a> )	Membrane	Application		
<b>MULE-HIDE TPO-C OR MULE-HIDE TPO-C (FR) MEMBRANE APPLICATIONS:</b>										
SC-1	Min. 22 ga., type B, Grade 33 steel	(Optional) VapAir Seal MD, self-adhering	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c. @ every deck flange)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	LVOC BA	-52.5	
SC-2	Min. 22 ga., type B, Grade 33 steel	(Optional) VapAir Seal MD, self-adhering	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c. @ every deck flange)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-75.0	

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

System No.	Deck <a href="#">(Note 1)</a>	Vapor Barrier	Base Insulation Layer		Top Insulation Layer		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
			Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
SC-3	Min. 22 ga., type B, Grade 33 steel	(Optional) VapAir Seal MD, self-adhering	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c. @ every deck flange)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH or min. 1.5-inch Poly ISO 1-DWD, Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	LVOC BA or TPO-c BA	-82.5
SC-4	Min. 22 ga., type B, Grade 33 steel	(Optional) VapAir Seal MD, self-adhering	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD and/or Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c. @ every deck flange)	(Optional) Additional layer(s) base insulation, min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb	-82.5
SC-5	Min. 22 ga., type B, Grade 33 steel	(Optional) VapAir Seal MD, self-adhering	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c. @ every deck flange)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-82.5
SC-6	Min. 22 ga., type B, Grade 33 steel	None	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c. @ every deck flange)	None	N/A	Mule-Hide TPO-c	AeroWeb or TPO-c BA	-105.0
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>									
SC-7	Min. 22 ga., type B, Grade 33 steel	(Optional) VapAir Seal MD, self-adhering	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD and/or Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c. @ every deck flange)	(Optional) Additional layer(s) base insulation, min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL)	-82.5
SC-8	Min. 22 ga., type B, Grade 33 steel	(Optional) VapAir Seal MD, self-adhering	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD and/or Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c. @ every deck flange)	(Optional) Additional layer(s) base insulation, min. 0.25-inch DensDeck Prime or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-82.5
SC-9	Min. 22 ga., type B, Grade 33 steel	(Optional) VapAir Seal MD, self-adhering	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c. @ every deck flange)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL)	-82.5



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

System No.	Deck <a href="#">(Note 1)</a>	Vapor Barrier	Base Insulation Layer		Top Insulation Layer		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
			Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
SC-10	Min. 22 ga., type B, Grade 33 steel	None	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c. @ every deck flange)	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL)	-105.0
<b>MULE-HIDE TPO-C FLEECE BACK RL APPLICATIONS:</b>									
SC-11	Min. 22 ga., type B, Grade 33 steel	(Optional) VapAir Seal MD, self-adhering	Min. 1.5-inch InsulBase RL	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c. @ every deck flange)	None	N/A	Mule-Hide TPO-c Fleece Back RL		-82.5
SC-12	Min. 22 ga., type B, Grade 33 steel	(Optional) VapAir Seal MD, self-adhering	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c. @ every deck flange)	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 0.5-inch Poly ISO 1-HD RL or min. 1.5-inch InsulBase RL	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back RL		-82.5
SC-13	Min. 22 ga., type B, Grade 33 steel	None	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c. @ every deck flange)	Min. 0.5-inch SecurShield HD RL	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back RL		-105.0

**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 <a href="#">(Note 1)</a>	Base Insulation Layer			Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>	MDP <a href="#">(psf)</a>
		Type	Fastener <a href="#">(Note 2, Note 11)</a>	Attach	Type	Attach <a href="#">(Notes 6,7,8)</a>		
<b>MULE-HIDE TPO-C OR MULE-HIDE TPO-C (FR) MEMBRANE APPLICATIONS:</b>								
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. 2.0-inch Insulfoam VIII	Note 2	1 per 2.7 ft <sup>2</sup>	Min. 1.5-inch Insulam (OSB)	Helix Max LRA (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c / Aqua Base 120, AeroWeb or TPO-c BA	-37.5*
SC-15	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 3.2 ft <sup>2</sup>	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 0.25-inch SECUROCK Ultralight Coated Glass-Mat Roof Board	Helix Max LRA (RIBBON)	Mule-Hide TPO-c / TPO-c BA	-37.5*
SC-16	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 3.2 ft <sup>2</sup>	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c / Aqua Base 120, AeroWeb, LVOC BA or TPO-c BA	-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 <a href="#">(Note 1)</a>	Base Insulation Layer			Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>	MDP <a href="#">(psf)</a>
		Type	Fastener <a href="#">(Note 2, Note 11)</a>	Attach	Type	Attach <a href="#">(Notes 6,7,8)</a>		
SC-17	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 2.0-inch Insulfoam VIII	Note 2	1 per 2.0 ft <sup>2</sup>	Min. 2.0-inch Insulfoam HD Composite	Helix Max LRA (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-45.0*
SC-18	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c (min. 60-mil) / AeroWeb or TPO-c BA	-45.0
SC-19	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c (min. 60-mil) / AeroWeb or TPO-c BA	-52.5
SC-20	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.8 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c / AeroWeb or LVOC BA	-52.5
SC-21	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board, Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c (min. 60-mil) / AeroWeb or TPO-c BA	-60.0
SC-22	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.8 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-60.0
SC-23	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.6 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board, Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c (min. 60-mil) / AeroWeb or TPO-c BA	-67.5
SC-24	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.6 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c (min. 60-mil) / AeroWeb or TPO-c BA	-75.0

**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 <a href="#">(Note 1)</a>	Base Insulation Layer			Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>	MDP <a href="#">(psf)</a>
		Type	Fastener <a href="#">(Note 2, Note 11)</a>	Attach	Type	Attach <a href="#">(Notes 6,7,8)</a>		
SC-25	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 3.0-inch Insulfoam VIII	Note 2	1 per 2.0 ft <sup>2</sup>	Min. 1.5-inch Insulam (OSB)	Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c / Aqua Base 120, AeroWeb or TPO-c BA	-75.0
SC-26	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.3 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-82.5
SC-27	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c (min. 60-mil) / AeroWeb or TPO-c BA	-82.5
SC-28	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board, Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c (min. 60-mil) / AeroWeb or TPO-c BA	-82.5
SC-29	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.3 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-90.0
SC-30	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board, Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c (min. 60-mil) / AeroWeb or TPO-c BA	-112.5
SC-31	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c (min. 60-mil) / AeroWeb or TPO-c BA	-135.0
SC-32	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 ACFoam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3 followed by Min. 0.25-inch DensDeck Prime	OB500	Mule-Hide TPO-c / Aqua Base 120, AeroWeb or TPO-c BA	-37.5*

**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 <a href="#">(Note 1)</a>	Base Insulation Layer			Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>	MDP <a href="#">(psf)</a>
		Type	Fastener <a href="#">(Note 2, Note 11)</a>	Attach	Type	Attach <a href="#">(Notes 6,7,8)</a>		
SC-33	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 4.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Mule-Hide TPO-c / Aqua Base 120, AeroWeb, LVOC BA or TPO-c BA	-37.5*
SC-34	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	Note 2	1 per 2.0 ft <sup>2</sup>	Additional layers of base insulation	OB500	Mule-Hide TPO-c / Aqua Base 120, AeroWeb or TPO-c BA	-45.0*
SC-35	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	Note 2	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1.5-inch Poly ISO 1-HD-Composite	OB500	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-45.0*
SC-36	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	Note 2	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck, DensDeck Prime	OB500	Mule-Hide TPO-c / Aqua Base 120 or TPO-c BA	-45.0*
SC-37	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	Note 2	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	OB500	Mule-Hide TPO-c / AeroWeb	-45.0*
SC-38	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 ACFoam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	OB500	Mule-Hide TPO-c / Aqua Base 120, AeroWeb or TPO-c BA	-45.0*
SC-39	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch ACFoam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	Note 2	1 per 4.0 ft <sup>2</sup>	Additional layers of base insulation	OB500	Mule-Hide TPO-c / Aqua Base 120, AeroWeb or TPO-c BA	-45.0*
SC-40	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch ACFoam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	Note 2	1 per 4.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1.5-inch Poly ISO 1-HD-Composite	OB500	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-45.0*
SC-41	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch ACFoam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	Note 2	1 per 4.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck, DensDeck Prime	OB500	Mule-Hide TPO-c / Aqua Base 120 or TPO-c BA	-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 <a href="#">(Note 1)</a>	Base Insulation Layer			Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>	MDP <a href="#">(psf)</a>
		Type	Fastener <a href="#">(Note 2, Note 11)</a>	Attach	Type	Attach <a href="#">(Notes 6,7,8)</a>		
SC-42	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch ACfoam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	Note 2	1 per 4.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	OB500	Mule-Hide TPO-c / AeroWeb	-45.0*
SC-43	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 3.2 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Mule-Hide TPO-c / Aqua Base 120, AeroWeb, LVOC BA or TPO-c BA	-45.0*
SC-44	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 2.7 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Mule-Hide TPO-c / Aqua Base 120, AeroWeb, LVOC BA or TPO-c BA	-45.0*
SC-45	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 1.6 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Mule-Hide TPO-c / Aqua Base 120, AeroWeb, LVOC BA or TPO-c BA	-60.0
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (PARTIAL BOND):</b>								
SC-46	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch Dens Deck followed by min. 2.0-inch Insulfoam VIII	Note 2	1 per 2.7 ft <sup>2</sup>	Min. 1.5-inch Insulam (OSB)	Helix Max LRA (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	-37.5*
SC-47	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, Poly ISO 1-DWD, Poly ISO 2 or ACfoam II	Note 2	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-37.5*
SC-48	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 Max LRA (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-37.5*
SC-49	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, Poly ISO 1-DWD, Poly ISO 2 or ACfoam II	Note 2	1 per 2.0 ft <sup>2</sup>	Additional layers of base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0*
SC-50	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 3.2 ft <sup>2</sup>	Min. 1.5-inch additional layers of base insulation or min. 2-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (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 <a href="#">(Note 1)</a>	Base Insulation Layer			Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>	MDP <a href="#">(psf)</a>
		Type	Fastener <a href="#">(Note 2, Note 11)</a>	Attach	Type	Attach <a href="#">(Notes 6,7,8)</a>		
SC-51	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 4.0 ft <sup>2</sup>	Min. 1-inch additional layers of base insulation or min. 2-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0*
SC-52	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 3.2 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0*
SC-53	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 4.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0*
SC-54	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 3.0-inch Insulfoam VIII	Note 2	1 per 2.0 ft <sup>2</sup>	Min. 1.5-inch Insulam (OSB)	FAST DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c Fleece Back / Helix Max LRA, FAST DT or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	-75.0
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>								
SC-55	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 2.0-inch Insulfoam VIII	Note 2	1 per 2.7 ft <sup>2</sup>	Min. 1.5-inch Insulam (OSB)	Helix Max LRA (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c Fleece Back / AquaBase 120 or Helix Max LRA or Helix Max LRA-DT (FULL)	-37.5*
SC-56	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 2.0-inch Insulfoam VIII	Note 2	1 per 2.0 ft <sup>2</sup>	Min. 2.0-inch Insulfoam HD Composite	Helix Max LRA (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-45.0*
SC-57	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 3.2 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON 6-inch o.c.)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL).	-45.0*
SC-58	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 3.2 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1.0-inch base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-45.0*
SC-59	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 3.2 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max 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 <a href="#">(Note 1)</a>	Base Insulation Layer			Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>	MDP <a href="#">(psf)</a>
		Type	Fastener <a href="#">(Note 2, Note 11)</a>	Attach	Type	Attach <a href="#">(Notes 6,7,8)</a>		
SC-60	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 4.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1.0-inch base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-45.0*
SC-61	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 4.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-45.0*
SC-62	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-45.0
SC-63	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-52.5
SC-64	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime, Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-60.0
SC-65	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-60.0
SC-66	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.6 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime, Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-67.5
SC-67	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.6 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-67.5
SC-68	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 3.0-inch Insulfoam VIII	Note 2	1 per 2.0 ft <sup>2</sup>	Min. 1.5-inch Insulam (OSB)	FAST DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c Fleece Back / AquaBase 120	-75.0

**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 <a href="#">(Note 1)</a>	Base Insulation Layer			Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>	MDP <a href="#">(psf)</a>
		Type	Fastener <a href="#">(Note 2, Note 11)</a>	Attach	Type	Attach <a href="#">(Notes 6,7,8)</a>		
SC-69	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.6 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-75.0
SC-70	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 1.6 ft <sup>2</sup>	Min. 1.0-inch base insulation or minimum 2-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-82.5
SC-71	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.3 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-82.5
SC-72	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-82.5
SC-73	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime, Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-82.5
SC-74	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-82.5
SC-75	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.3 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-90.0
SC-76	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime, Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-112.5

**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 <a href="#">(Note 1)</a>	Base Insulation Layer			Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>	MDP <a href="#">(psf)</a>
		Type	Fastener <a href="#">(Note 2, Note 11)</a>	Attach	Type	Attach <a href="#">(Notes 6,7,8)</a>		
SC-77	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.0 ft <sup>2</sup>	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-112.5
SC-78	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.0 ft <sup>2</sup>	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-135.0
<b>MULE-HIDE TPO-C FLEECE BACK RL APPLICATIONS:</b>								
SC-79	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 2.0 ft <sup>2</sup>	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 0.5-inch SecurShield HD RL	Helix Max LRA or Helix Max LRA-DT (FULL or SPLATTER)	Mule-Hide TPO-c Fleece Back RL	-45.0*
SC-80	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.8 ft <sup>2</sup>	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 0.5-inch SecurShield HD RL	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back RL	-52.5
SC-81	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.3 ft <sup>2</sup>	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 0.5-inch SecurShield HD RL	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back RL	-82.5
SC-82	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.0 ft <sup>2</sup>	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 0.5-inch SecurShield HD RL	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back RL	-112.5

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer			Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Fastener <a href="#">(Note 2, Note 11)</a>	Attach	Type	Attach <a href="#">(Notes 6,7,8)</a>	Base Ply	Top Ply	
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (PARTIAL BOND):</b>									
SC-83	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 4.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Carlisle SureMB 90 Base, SureMB 90 Poly Base or SureMB 120 Poly Base / US Ply Duraflex 901 Premium SBS Modified Adhesive	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0*
SC-84	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 4.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0*
SC-85	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.6 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	-75.0
<b>MULE-HIDE TPO-C FLEECE BACK PLUS MEMBRANE APPLICATIONS:</b>									
SC-86	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 4.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Hot asphalt	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-45.0*
SC-87	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 1.6 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Hot asphalt	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-60.0
SC-88	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 4.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-45.0*

TABLE 2C: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER										
SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED BASE PLY, BONDED ROOF COVER										
System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer(s)		Roof Cover (Note 15)		MDP (psf)	
		Type	Fastener (Note 2, Note 11)	Attach	Type	Attach (Notes 6.7.8)	Base Ply	Top Ply		
SC-89	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 3.2 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-45.0*	
SC-90	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 4.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	OB500	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-45.0*	
SC-91	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 2.0 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	OB500	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-45.0*	
SC-92	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 1.6 ft <sup>2</sup>	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	OB500, 6-inch o.c.	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-60.0	

TABLE 2D: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER												
SYSTEM TYPE B-2: MECHANICALLY ATTACHED THERMAL BARRIER, BONDED VAPOR BARRIER, BONDED INSULATION, BONDED ROOF COVER												
System No.	Deck (Note 1)	Thermal Barrier			Primer	Vapor Barrier	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover (Note 15)	MDP (psf)
		Type	Fasten (Note 2, Note 11)	Attach			Type	Attach (Notes 6.7.8)	Type	Attach (Notes 6.7.8)		
<b>MULE-HIDE TPO-C OR MULE-HIDE TPO-C (FR) MEMBRANE APPLICATIONS:</b>												
SC-93	Min. 22 ga., type B, Grade 33 steel	Min. 0.5-inch DensDeck Prime or min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.0 ft <sup>2</sup>	CAV-GRIP Primer	F5 Air and Vapor Barrier, self-adhering	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA, Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA, Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-45.0*

**TABLE 2D: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**  
**SYSTEM TYPE B-2: MECHANICALLY ATTACHED THERMAL BARRIER, BONDED VAPOR BARRIER, BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck <a href="#">(Note 1)</a>	Thermal Barrier			Primer	Vapor Barrier	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>	MDP <a href="#">(psf)</a>
		Type	Fasten <a href="#">(Note 2, Note 11)</a>	Attach			Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>		
SC-94	Min. 22 ga., type B, Grade 33 steel	Min. 0.5-inch DensDeck Prime	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 4.0 ft <sup>2</sup>	None	Carlisle SureMB 90TG or Carlisle SureMB 120TG, torch-applied	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layers base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c / AeroWeb or TPO-c BA	-45.0*
SC-95	Min. 22 ga., type B, Grade 33 steel	Min. 0.5-inch DensDeck Prime or min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.0 ft <sup>2</sup>	CAV-GRIP Primer	F5 Air and Vapor Barrier, self-adhering	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA (RIBBON)	(Optional) Additional layers base insulation	Helix Max LRA (RIBBON)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-52.5
SC-96	Min. 22 ga., type B, Grade 33 steel	Min. 0.5-inch DensDeck Prime	InsulFast with Insulation Fastening Plate	1 per 1.6 ft <sup>2</sup>	None	SureMB 90TG or SureMB 120TG, torch-applied	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-67.5
SC-97	Min. 22 ga., type B, Grade 33 steel	Min. 0.5-inch DensDeck Prime	InsulFast with Insulation Fastening Plate	1 per 1.6 ft <sup>2</sup>	None	SureMB 90TG or SureMB 120TG, torch-applied	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD90 or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-67.5
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (PARTIAL BOND):</b>												
SC-98	Min. 22 ga., type B, Grade 33 steel	Min. 0.5-inch DensDeck Prime or min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.0 ft <sup>2</sup>	CAV-GRIP Primer	F5 Air and Vapor Barrier, self-adhering	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA, Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-HD-Composite	Helix Max LRA, Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0*



**TABLE 2D: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**  
**SYSTEM TYPE B-2: MECHANICALLY ATTACHED THERMAL BARRIER, BONDED VAPOR BARRIER, BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck <a href="#">(Note 1)</a>	Thermal Barrier			Primer	Vapor Barrier	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>	MDP <a href="#">(psf)</a>
		Type	Fasten <a href="#">(Note 2, Note 11)</a>	Attach			Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>		
SC-99	Min. 22 ga., type B, Grade 33 steel	Min. 0.5-inch DensDeck Prime or min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.0 ft <sup>2</sup>	CAV-GRIP Primer	F5 Air and Vapor Barrier, self-adhering	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA, Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA, Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	-45.0*
<b>MULE-HIDE TPO-c FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>												
SC-100	Min. 22 ga., type B, Grade 33 steel	Min. 0.5-inch DensDeck Prime or min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.0 ft <sup>2</sup>	CAV-GRIP Primer	F5 Air and Vapor Barrier, self-adhering	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA, Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA, Helix Max LRA-DT (RIBBON, 6-inch o.c.) or Helix Max LRA (SPATTER)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-45.0*
SC-101	Min. 22 ga., type B, Grade 33 steel	Min. 0.5-inch DensDeck Prime	Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate	1 per 4.0 ft <sup>2</sup>	None	Carlisle SureMB 90TG or Carlisle SureMB 120TG, torch-applied	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layers base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-45.0*
SC-102	Min. 22 ga., type B, Grade 33 steel	Min. 0.5-inch DensDeck Prime or min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.0 ft <sup>2</sup>	CAV-GRIP Primer	F5 Air and Vapor Barrier, self-adhering	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-52.5
SC-103	Min. 22 ga., type B, Grade 33 steel	Min. 0.5-inch DensDeck Prime	InsulFast with Insulation Fastening Plate	1 per 1.6 ft <sup>2</sup>	None	SureMB 90TG or SureMB 120TG, torch-applied	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-67.5

**TABLE 2D: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER**  
**SYSTEM TYPE B-2: MECHANICALLY ATTACHED THERMAL BARRIER, BONDED VAPOR BARRIER, BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck <a href="#">(Note 1)</a>	Thermal Barrier			Primer	Vapor Barrier	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>	MDP <a href="#">(psf)</a>
		Type	Fasten <a href="#">(Note 2, Note 11)</a>	Attach			Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>		
SC-104	Min. 22 ga., type B, Grade 33 steel	Min. 0.5-inch DensDeck Prime	InsulFast with Insulation Fastening Plate	1 per 1.6 ft <sup>2</sup>	None	SureMB 90TG or SureMB 120TG, torch-applied	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD90 or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-67.5
<b>MULE-HIDE TPO-C FLEECE BACK RL APPLICATIONS:</b>												
SC-105	Min. 22 ga., type B, Grade 33 steel	Min. 0.5-inch DensDeck Prime	InsulFast with Insulation Fastening Plate	1 per 1.6 ft <sup>2</sup>	None	SureMB 90TG or SureMB 120TG, torch-applied	Min. 1.5-inch InsulBase RL	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>None</u>	N/A	Mule-Hide TPO-c Fleece Back RL	-67.5
SC-106	Min. 22 ga., type B, Grade 33 steel	Min. 0.5-inch DensDeck Prime	InsulFast with Insulation Fastening Plate	1 per 1.6 ft <sup>2</sup>	None	SureMB 90TG or SureMB 120TG, torch-applied	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch SecurShield HD RL or min. 1.5-inch InsulBase RL	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back RL	-67.5

**TABLE 2E: 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 <a href="#">(Note 1)</a>	Base Insulation Layer (Optional for Structural Concrete or Recover, <a href="#">Note 13</a> )	Top Insulation Layer			Roof Cover <a href="#">(Note 15)</a>	MDP <a href="#">(psf)</a>
			Type	Fastener <a href="#">(Note 2, Note 11)</a>	Attach		
<b>MULE-HIDE TPO-C OR MULE-HIDE TPO-C (FR) MEMBRANE APPLICATIONS:</b>							
SC-107	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Min. 0.25-inch DensDeck Prime	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 3.2 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-30.0*
SC-108	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Min. 0.5-inch DensDeck Prime	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 5.3 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-30.0*

**TABLE 2E: 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 ( <a href="#">Note 1</a> )	Base Insulation Layer (Optional for Structural Concrete or Recover, <a href="#">Note 13</a> )	Top Insulation Layer			Roof Cover ( <a href="#">Note 15</a> )	MDP (psf)
			Type	Fastener ( <a href="#">Note 2</a> , <a href="#">Note 11</a> )	Attach		
SC-109	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min 7/16-inch APA or TECO rated OSB	Mule-Hide SIP NB LD Fastener	1 per 3.2 ft <sup>2</sup>	Mule-Hide TPO-c / Aqua Base 120, AeroWeb or TPO-c BA	-37.5*
SC-110	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 2, ACFoam II or ENRGY 3	Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide TPO-c / Aqua Base 120 or TPO-c BA	-37.5*
SC-111	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 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.7 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb or LVOC BA	-37.5*
SC-112	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 Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Note 2	1 per 2.7 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-37.5*
SC-113	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 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.7 ft <sup>2</sup>	Mule-Hide TPO-c / Aqua Base 120, AeroWeb, LVOC BA or TPO-c BA	-37.5*
SC-114	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Min. 0.625-inch DensDeck Prime	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 5.3 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-37.5*
SC-115	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.625-inch SECUROCK Ultralight Coated Glass-Mat Roof Board	OMG #12 Standard, OMG #14 Heavy Duty, OMG XHD, OMG #12 Roofgrip, OMG #14 Roofgrip or OMG #15 Roofgrip with OMG 3 in. Galvalume Steel Plate	1 per 5.3 ft <sup>2</sup>	Mule-Hide TPO-c / TPO-c BA	-45.0*
SC-116	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.25-inch SECUROCK Ultralight Coated Glass-Mat Roof Board	OMG #12 Standard, OMG #14 Heavy Duty, OMG XHD, OMG #12 Roofgrip, OMG #14 Roofgrip or OMG #15 Roofgrip with OMG 3 in. Galvalume Steel Plate	1 per 3.2 ft <sup>2</sup>	Mule-Hide TPO-c / TPO-c BA	-45.0*
SC-117	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Ultralight Coated Glass-Mat Roof Board	Mule-Hide HDP Fastener with Mule-Hide 3" Insulation Plate	1 per 3.2 ft <sup>2</sup>	Mule-Hide TPO-c / TPO-c BA	-45.0*
SC-118	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 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide TPO-c / Aqua Base 120, AeroWeb, LVOC BA or TPO-c BA	-45.0*
SC-119	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	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 4.0 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-45.0*

**TABLE 2E: 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 (Optional for Structural Concrete or Recover, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fastener (Note 2, Note 11)	Attach		
SC-120	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 0.50-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 3.2 ft <sup>2</sup>	Mule-Hide TPO-c / Aqua Base 120, AeroWeb, LVOC BA or TPO-c BA	-45.0*
SC-121	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 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 4.0 ft <sup>2</sup>	Mule-Hide TPO-c / Aqua Base 120, AeroWeb, LVOC BA or TPO-c BA	-45.0*
SC-122	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min 7/16-inch APA or TECO rated OSB	Mule-Hide SIP NB LD Fastener	1 per 2.7 ft <sup>2</sup>	Mule-Hide TPO-c / Aqua Base 120, AeroWeb or TPO-c BA	-45.0*
SC-123	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 3.6 ft <sup>2</sup>	Mule-Hide TPO-c / Aqua Base 120, AeroWeb or TPO-c BA	-45.0*
SC-124	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, Poly ISO 1-DWD	Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide TPO-c / Aqua Base 120, AeroWeb, or TPO-c BA	-45.0*
SC-125	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 2, ACFoam II, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide TPO-c / Aqua Base 120, AeroWeb, or TPO-c BA	-45.0*
SC-126	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-HD-Composite	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-45.0*
SC-127	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 ACFoam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	Note 2	1 per 4.0 ft <sup>2</sup>	Mule-Hide TPO-c / Aqua Base 120, AeroWeb, or TPO-c BA	-45.0*
SC-128	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-HD-Composite	Note 2	1 per 4.0 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-45.0*
SC-129	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 Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-45.0*
SC-130	Min. 22 ga., type B, Grade 33 steel or structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD, Poly ISO 2 or ACFoam II	Min. 0.5-inch Poly ISO 1-HD Plus or EcoStorm VSH	Note 2	1 per 4.0 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-45.0*
SC-131	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Min. 0.25-inch DensDeck Prime	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.8 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-52.5

**TABLE 2E: 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 ( <a href="#">Note 1</a> )	Base Insulation Layer (Optional for Structural Concrete or Recover, <a href="#">Note 13</a> )	Top Insulation Layer			Roof Cover ( <a href="#">Note 15</a> )	MDP (psf)
			Type	Fastener ( <a href="#">Note 2</a> , <a href="#">Note 11</a> )	Attach		
SC-132	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 TPO-c / Aqua Base 120	-52.5
SC-133	Min. 22 ga., type B, Grade 33 steel or structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD, Poly ISO 2 or ACfoam II	Min. 0.5-inch Poly ISO 1-HD Plus or EcoStorm VSH	Note 2	1 per 1.8 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-60.0
SC-134	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 1.6 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb or TPO-c BA	-60.0
SC-135	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Min. 0.5-inch DensDeck Prime	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.8 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-67.5
SC-136	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Ultralight Coated Glass-Mat Roof Board	OMG #12 Standard, OMG #14 Heavy Duty, OMG XHD, OMG #12 Roofgrip, OMG #14 Roofgrip or OMG #15 Roofgrip with OMG 3 in. Galvalume Steel Plate	1 per 1.3 ft <sup>2</sup>	Mule-Hide TPO-c / TPO-c BA	-67.5
SC-137	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 TPO-c / AeroWeb or TPO-c BA	-75.0
SC-138	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 2, ACfoam II, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide TPO-c / TPO-c BA	-75.0
SC-139	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 1-DWD	Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb	-75.0
SC-140	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-HD-Composite	Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-75.0
SC-141	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Min. 0.5-inch DensDeck Prime	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-75.0
SC-142	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 1.6 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb or LVOC BA	-75.0
SC-143	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 1.6 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb or TPO-c BA	-82.5

**TABLE 2E: 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 ( <a href="#">Note 1</a> )	Base Insulation Layer (Optional for Structural Concrete or Recover, <a href="#">Note 13</a> )	Top Insulation Layer			Roof Cover ( <a href="#">Note 15</a> )	MDP (psf)
			Type	Fastener ( <a href="#">Note 2</a> , <a href="#">Note 11</a> )	Attach		
SC-144	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Min 0.5-inch DensDeck Prime	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: <a href="#">Note 2</a>	1 per 1.0 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-82.5
SC-145	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	<a href="#">Note 2</a>	1 per 1.0 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb	-82.5
SC-146	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Ultralight Coated Glass-Mat Roof Board	Mule-Hide HDP Fastener with Mule-Hide 3" Insulation Plate	1 per 1.0 ft <sup>2</sup>	Mule-Hide TPO-c / TPO-c BA	-97.5
SC-147	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	<a href="#">Note 2</a>	1 per 1.0 ft <sup>2</sup>	Mule-Hide TPO-c / TPO-c BA	-97.5
SC-148	Min. 20 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	<a href="#">Note 2</a>	1 per 1.3 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb or TPO-c BA	-112.5
SC-149	Min. 18 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch thick, one or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	<a href="#">Note 2</a>	1 per 1.3 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb or TPO-c BA	-112.5
SC-150	Min. 22 ga., type B, Grade 33 steel or structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD, Poly ISO 2 or ACFoam II	Min. 0.5-inch Poly ISO 1-HD Plus or EcoStorm VSH	<a href="#">Note 2</a>	1 per 1.3 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb or TPO-c BA or LVOC BA	-112.5
SC-151	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. 2.0-inch Poly ISO 1-HD-Composite	<a href="#">Note 2</a>	1 per 1.0 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-112.5
SC-152	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-DWD	<a href="#">Note 2</a>	1 per 1.0 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb or TPO-c BA	-120.0
SC-153	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	<a href="#">Note 2</a>	1 per 1.0 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb or LVOC BA	-127.5
SC-154	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Min 0.5-inch DensDeck Prime	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: <a href="#">Note 2</a>	1 per 1.0 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-127.5
SC-155	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. 2.0-inch Poly ISO 1-DWD	<a href="#">Note 2</a>	1 per 1.0 ft <sup>2</sup>	Mule-Hide TPO-c / AeroWeb or LVOC BA	-127.5



**TABLE 2E: 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 ( <a href="#">Note 1</a> )	Base Insulation Layer (Optional for Structural Concrete or Recover, <a href="#">Note 13</a> )	Top Insulation Layer			Roof Cover ( <a href="#">Note 15</a> )	MDP (psf)
			Type	Fastener ( <a href="#">Note 2</a> , <a href="#">Note 11</a> )	Attach		
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (PARTIAL BOND):</b>							
SC-156	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 1-DWD	Note 2	1 per 3.2 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0*
SC-157	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, Poly ISO 1-DWD	Note 2	1 per 4.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0*
SC-158	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-HD-Composite	Note 2	1 per 4.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0*
SC-159	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 0.25-inch DensDeck Prime	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0*
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>							
SC-160	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Min. 0.25-inch DensDeck Prime	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 3.2 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-30.0*
SC-161	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Min. 0.5-inch DensDeck Prime	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 5.3 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-30.0*
SC-162	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 Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Note 2	1 per 2.7 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-37.5*
SC-163	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 1-DWD	Note 2	1 per 4.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-45.0*
SC-164	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, Poly ISO 1-DWD	Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-45.0*
SC-165	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-HD-Composite	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-45.0*
SC-166	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-HD-Composite	Note 2	1 per 4.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-45.0*

**TABLE 2E: 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 (Optional for Structural Concrete or Recover, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fastener (Note 2, Note 11)	Attach		
SC-167	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	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 4.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-45.0*
SC-168	Min. 22 ga., type B, Grade 33 steel or structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD, Poly ISO 2 or ACfoam II	Min. 0.5-inch Poly ISO 1-HD Plus or EcoStorm VSH	Note 2	1 per 4.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-45.0*
SC-169	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 Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-45.0*
SC-170	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Min. 0.25-inch DensDeck Prime	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.8 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-52.5
SC-171	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 1.6 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-60.0
SC-172	Min. 22 ga., type B, Grade 33 steel or structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD, Poly ISO 2 or ACfoam II	Min. 0.5-inch Poly ISO 1-HD Plus or EcoStorm VSH	Note 2	1 per 1.8 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-60.0
SC-173	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Min. 0.5-inch DensDeck Prime	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.8 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-67.5
SC-174	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 1-DWD	Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-75.0
SC-175	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-HD-Composite	Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-75.0
SC-176	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Min. 0.5-inch DensDeck Prime	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-75.0
SC-177	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 1.6 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-75.0
SC-178	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 TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-75.0

**TABLE 2E: 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 (Optional for Structural Concrete or Recover, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fastener (Note 2, Note 11)	Attach		
SC-179	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Min 0.5-inch DensDeck Prime	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-82.5
SC-180	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 1.6 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-82.5
SC-181	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 15/32-inch OSB	Note 2	1 per 1.9 ft <sup>2</sup> (Mule-Hide A-27F)	Mule-Hide TPO-c Fleece Back / Aqua Base 120, HydroBond W-B	-82.5
SC-182	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	0.5-inch EcoStorm VSH	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-82.5
SC-183	Min. 20 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.3 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-112.5
SC-184	Min. 18 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch thick, one or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.3 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-112.5
SC-185	Min. 22 ga., type B, Grade 33 steel or structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD, Poly ISO 2 or ACfoam II	Min. 0.5-inch Poly ISO 1-HD Plus or EcoStorm VSH	Note 2	1 per 1.3 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-112.5
SC-186	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Min 0.5-inch DensDeck Prime	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-127.5
SC-187	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-DWD	Note 2	1 per 1.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-135.0
SC-188	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 TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-135.0

**TABLE 2E: 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 (Optional for Structural Concrete or Recover, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fastener (Note 2, Note 11)	Attach		
SC-189	Min. 22 ga., type B, Grade 80 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 TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-135.0
SC-190	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, loose laid	0.5-inch EcoStorm VSH	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back (min. 60-mil) / Helix Max LRA or Helix Max LRA-DT (FULL)	-135.0
SC-191	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-HD-Composite	Note 2	1 per 1.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back / Helix Max LRA-DT (FULL)	-157.5
<b>MULE-HIDE SA-TPO MEMBRANE APPLICATIONS:</b>							
SC-192	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. 2-inch Insulfoam SP	Note 2	1 per 2.7 ft <sup>2</sup>	Mule-Hide SA-TPO, self-adhered	-30.0*
SC-193	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. 2-inch Insulfoam SP	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide SA-TPO, self-adhered	-45.0*
SC-194	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. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min 7/16-inch APA or TECO rated OSB	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide SA-TPO, self-adhered	-45.0*
SC-195	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide SA-TPO, self-adhered	-45.0*
SC-196	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 2.0-inch Poly ISO 1, Poly ISO 1-DWD	Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide SA-TPO, self-adhered	-60.0
<b>MULE-HIDE TPO-C FLEECE BACK RL APPLICATIONS:</b>							
SC-197	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 InsulBase RL	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 4.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back RL	-45.0*
SC-198	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min., 1.5-inch Poly ISO 1, Poly ISO 1-DWD, loose-laid	Min. 0.5-inch SecurShield HD RL	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 2.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back RL	-45.0*

**TABLE 2E: 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 ( <a href="#">Note 1</a> )	Base Insulation Layer (Optional for Structural Concrete or Recover, <a href="#">Note 13</a> )	Top Insulation Layer			Roof Cover ( <a href="#">Note 15</a> )	MDP (psf)
			Type	Fastener ( <a href="#">Note 2</a> , <a href="#">Note 11</a> )	Attach		
SC-199	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 InsulBase RL	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.6 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back RL	-75.0

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

System No.	Deck ( <a href="#">Note 1</a> )	Base Insulation Layer ( <a href="#">Note 3</a> , <a href="#">Note 13</a> )	Top Insulation Layer			Roof Cover ( <a href="#">Note 15</a> )		MDP (psf)
			Type	Fastener ( <a href="#">Note 2</a> , <a href="#">Note 11</a> )	Attach	Base Ply	Top Ply	
<b>MULE-HIDE TPO-C FLEECE BACK PLUS MEMBRANE APPLICATIONS:</b>								
SC-200	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	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.8 ft <sup>2</sup>	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-67.5
SC-201	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	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.6 ft <sup>2</sup>	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-75.0
SC-202	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 1.6 ft <sup>2</sup>	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-75.0
SC-203	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	Steel: Mule-Hide Drill Point Fastener with Mule-Hide 3" Insulation Plate Concrete: Note 2	1 per 1.0 ft <sup>2</sup>	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-120.0

**TABLE 2G: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER  
SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER**

System No.	Deck (Note 1)	Insulation Layer (Note 3, Note 13)	Attachment		Roof Cover (Note 15B)	MDP (psf)
			Fastener (Note 11)	Density		
<b>MULE-HIDE TPO INDUCTION WELD PLATE SYSTEMS:</b>						
SC-204	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination.	Mule-Hide EHD Fastener and Mule-Hide TPO Induction Weld Plate	1 per 5.3 ft <sup>2</sup> (6 parts per 4x8 ft board) <i>Boards are placed with the 8 ft. dimension oriented perpendicular to the steel deck ribs with adjacent boards offset by 12 in. to stagger the fastener/plate fastening pattern</i>	Mule-Hide TPO-c, Mule-Hide TPO-c Extra or Mule-Hide TPO-c (FR) induction welded with Trufast Induction Welding Tool per manufacturer's instructions.	-45.0*
SC-205	Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c.	Min. 1.5-inch thick, one or more layers, any combination.	Mule-Hide EHD Fastener and Mule-Hide TPO Induction Weld Plate	1 per 4.0 ft <sup>2</sup> (8 parts per 4x8 ft board) <i>Boards are placed with the 8 ft. dimension oriented perpendicular to the steel deck ribs with adjacent boards offset by 12 in. to stagger the fastener/plate fastening pattern</i>	Mule-Hide TPO-c, Mule-Hide TPO-c Extra or Mule-Hide TPO-c (FR) induction welded with Trufast Induction Welding Tool per manufacturer's instructions.	-52.5
SC-206	Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws with 3/4" washers, 6" o.c.	Min. 1.5-inch thick, one or more layers, any combination.	Mule-Hide EHD Fastener and Mule-Hide TPO Induction Weld Plate	1 per 2.0 ft <sup>2</sup> (16 parts per 4x8 ft board) <i>Boards are placed with the 8 ft. dimension oriented perpendicular to the steel deck ribs with adjacent boards offset by 12 in. to stagger the fastener/plate fastening pattern</i>	Mule-Hide TPO-c, Mule-Hide TPO-c Extra or Mule-Hide TPO-c (FR) induction welded with Trufast Induction Welding Tool per manufacturer's instructions.	-82.5
SC-207	Min. 22 ga., type B, Grade 80 steel; 6 ft span; #12 HWH Tek 5 screws with 3/4" washers, 6" o.c.	Min. 1.5-inch thick, one or more layers, any combination.	Mule-Hide EHD Fastener and Mule-Hide TPO Induction Weld Plate	1 per 2.0 ft <sup>2</sup> (16 parts per 4x8 ft board) <i>Boards are placed with the 8 ft. dimension oriented perpendicular to the steel deck ribs with adjacent boards offset by 12 in. to stagger the fastener/plate fastening pattern</i>	Mule-Hide TPO-c, Mule-Hide TPO-c Extra or Mule-Hide TPO-c (FR) induction welded with Trufast Induction Welding Tool per manufacturer's instructions.	-105.0
SC-208	Min. 22 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c.	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached (Note 5)	Mule-Hide EHD Fastener and Mule-Hide TPO Induction Weld Plate	6-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c, Mule-Hide TPO-c Extra or Mule-Hide TPO-c (FR) induction welded with Trufast Induction Welding Tool per manufacturer's instructions.	-60.0
SC-209	Min. 20 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tek 5 screws, 6" o.c.	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached (Note 5)	Mule-Hide EHD Fastener and Mule-Hide TPO Induction Weld Plate	6-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c, Mule-Hide TPO-c Extra or Mule-Hide TPO-c (FR) induction welded with Trufast Induction Welding Tool per manufacturer's instructions.	-75.0



**TABLE 2G: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER**  
**SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER**

System No.	Deck ( <a href="#">Note 1</a> )	Insulation Layer ( <a href="#">Note 3</a> , <a href="#">Note 13</a> )	Attachment		Roof Cover ( <a href="#">Note 15B</a> )	MDP ( <a href="#">psf</a> )
			Fastener ( <a href="#">Note 11</a> )	Density		
SC-210	Min. 22 ga., type B, Grade 33 steel; 4 ft span; #12 HWH Tekes 5 screws, 6" o.c.	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached ( <a href="#">Note 5</a> )	Mule-Hide EHD Fastener and Mule-Hide TPO Induction Weld Plate	6-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c, Mule-Hide TPO-c Extra or Mule-Hide TPO-c (FR) induction welded with Trufast Induction Welding Tool per manufacturer's instructions.	-82.5
SC-211	Min. 20 ga., type B, Grade 33 steel; 5.5 ft span; #12 HWH Tekes 5 screws, 6" o.c.	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached ( <a href="#">Note 5</a> )	Mule-Hide EHD Fastener and Mule-Hide TPO Induction Weld Plate	6-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c, Mule-Hide TPO-c Extra or Mule-Hide TPO-c (FR) induction welded with Trufast Induction Welding Tool per manufacturer's instructions.	-82.5
SC-212	Min. 20 ga., type B, Grade 33 steel; 5 ft span; #12 HWH Tekes 5 screws, 6" o.c.	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached ( <a href="#">Note 5</a> )	Mule-Hide EHD Fastener and Mule-Hide TPO Induction Weld Plate	6-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c, Mule-Hide TPO-c Extra or Mule-Hide TPO-c (FR) induction welded with Trufast Induction Welding Tool per manufacturer's instructions.	-90.0
SC-213	Min. 18 ga., type B, Grade 33 steel; 6 ft span; #12 HWH Tekes 5 screws, 6" o.c.	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached ( <a href="#">Note 5</a> )	Mule-Hide EHD Fastener and Mule-Hide TPO Induction Weld Plate	6-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c, Mule-Hide TPO-c Extra or Mule-Hide TPO-c (FR) induction welded with Trufast Induction Welding Tool per manufacturer's instructions.	-90.0
SC-214	Min. 22 ga., type B, Grade 80 steel; 6 ft span; #12 HWH Tekes 5 screws, 6" o.c.	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached ( <a href="#">Note 5</a> )	Mule-Hide EHD Fastener and Mule-Hide TPO Induction Weld Plate	6-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c, Mule-Hide TPO-c Extra or Mule-Hide TPO-c (FR) induction welded with Trufast Induction Welding Tool per manufacturer's instructions.	-90.0
<b>RHINO BOND SYSTEMS:</b>						
SC-215	Min. 22 ga., type B, Grade 33 steel	Min. 1-inch thick, one or more layers, any combination. <a href="#">Note A.</a>	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 5.3 ft <sup>2</sup> (6 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29; <a href="#">Note B</a>	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-45.0
SC-216	Min. 22 ga., type B, Grade 33 steel, 7 ft span, HILTI X-HSN 24, 6" o.c. Side laps HILTI S-SLC 01 M HWH, 24" o.c.	Min. 1-inch thick, one or more layers, any combination. <a href="#">Note C.</a>	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 4.0 ft <sup>2</sup> (2 x 2 ft grid pattern)	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-52.5
SC-217	Min. 22 ga., type B, Grade 33 steel, 7 ft span, 5/8" puddle welds, 6" o.c. Side laps ITW HWH #12 Tekes 1, 24" o.c.	Min. 1-inch thick, one or more layers, any combination. <a href="#">Note C.</a>	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 4.0 ft <sup>2</sup> (2 x 2 ft grid pattern)	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-52.5

**TABLE 2G: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER**  
**SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER**

System No.	Deck ( <a href="#">Note 1</a> )	Insulation Layer ( <a href="#">Note 3</a> , <a href="#">Note 13</a> )	Attachment		Roof Cover ( <a href="#">Note 15B</a> )	MDP ( <a href="#">psf</a> )
			Fastener ( <a href="#">Note 11</a> )	Density		
SC-218	Min. 22 ga., type B, Grade 33 steel	Min. 1-inch thick, one or more layers, any combination. <a href="#">Note A</a> .	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 4.0 ft <sup>2</sup> (8 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29; <a href="#">Note B</a>	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-52.5
SC-219	Min. 22 ga., type B, Grade 40 steel; 6 ft spans; 5/8" puddle welds 6" o.c.	Min. 1.5-inch thick, one or more layers, any combination	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 4.0 ft <sup>2</sup> (2 x 2 ft grid pattern)	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-52.5
SC-220	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination. <a href="#">Note C</a> .	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 3.2 ft <sup>2</sup> (10 parts per 4 x 8 ft board)	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-52.5
SC-221	Min. 22 ga., type B, Grade 80 steel	Min. 1-inch thick, one or more layers, any combination. <a href="#">Note A</a> .	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 4.0 ft <sup>2</sup> (8 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29; <a href="#">Note B</a>	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-60.0
SC-222	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination. <a href="#">Note C</a> .	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 2.7 ft <sup>2</sup> (12 parts per 4 x 8 ft board)	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-67.5
SC-223	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination. <a href="#">Note C</a> .	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 2.0 ft <sup>2</sup> (16 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-97.5
SC-224	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	18-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-30.0
SC-225	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	12-inch o.c. in rows 120-inch o.c.	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-30.0
SC-226	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	6-inch o.c. in rows 120-inch o.c.	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-37.5
SC-227	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	12-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-37.5
SC-228	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	12-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-45.0

**TABLE 2G: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER**  
**SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER**

System No.	Deck ( <a href="#">Note 1</a> )	Insulation Layer ( <a href="#">Note 3</a> , <a href="#">Note 13</a> )	Attachment		Roof Cover ( <a href="#">Note 15B</a> )	MDP ( <a href="#">psf</a> )
			Fastener ( <a href="#">Note 11</a> )	Density		
SC-229	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	6-inch o.c. in rows 120-inch o.c.	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-52.5
SC-230	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached	OMG XHD or Dekfast DF-#15-PH3 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	6-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-67.5
<b>ISOWELD INDUCTION WELDING SYSTEM:</b>						
SC-231	Min. 22 ga., type B, Grade 33 steel	Min. 1-inch thick, one or more layers, any combination. <a href="#">Note A.</a>	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 5.3 ft <sup>2</sup> (6 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29; <a href="#">Note B</a>	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-45.0
SC-232	Min. 22 ga., type B, Grade 33 steel, 7 ft span, HILTI X-HSN 24, 6" o.c. Side laps HILTI S-SLC 01 M HWH, 24" o.c.	Min. 1-inch thick, one or more layers, any combination. <a href="#">Note C.</a>	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 4.0 ft <sup>2</sup> (2 x 2 ft grid pattern)	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-52.5
SC-233	Min. 22 ga., type B, Grade 33 steel, 7 ft span, 5/8" puddle welds, 6" o.c. Side laps ITW HWH #12 Tek's 1, 24" o.c.	Min. 1-inch thick, one or more layers, any combination. <a href="#">Note C.</a>	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 4.0 ft <sup>2</sup> (2 x 2 ft grid pattern)	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-52.5
SC-234	Min. 22 ga., type B, Grade 33 steel	Min. 1-inch thick, one or more layers, any combination. <a href="#">Note A.</a>	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 4.0 ft <sup>2</sup> (8 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29; <a href="#">Note B</a>	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-52.5
SC-235	Min. 22 ga., type B, Grade 40 steel; 6 ft spans; 5/8" puddle welds 6" o.c.	Min. 1.5-inch thick, one or more layers, any combination	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 4.0 ft <sup>2</sup> (2 x 2 ft grid pattern)	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-52.5
SC-236	Min. 22 ga., type B, Grade 40 steel	One or more layers, any combination, min. 1.5-inch	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 6 ft <sup>2</sup> 2x3-ft grid, staggered	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-52.5
SC-237	Min. 22 ga., type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Dekfast DF-#12-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 6 ft <sup>2</sup> 2x3-ft grid, staggered	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-52.5
SC-238	Min. 22 ga., type B, Grade 40 steel	One or more layers, any combination, min. 1.5-inch	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 4.0 ft <sup>2</sup> 2x2-ft grid, staggered	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-60.0
SC-239	Min. 22 ga., type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Dekfast DF-#12-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 4.0 ft <sup>2</sup> 2x2-ft grid, staggered	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-60.0

**TABLE 2G: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER**  
**SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER**

System No.	Deck ( <a href="#">Note 1</a> )	Insulation Layer ( <a href="#">Note 3</a> , <a href="#">Note 13</a> )	Attachment		Roof Cover ( <a href="#">Note 15B</a> )	MDP ( <a href="#">psf</a> )
			Fastener ( <a href="#">Note 11</a> )	Density		
SC-240	Min. 22 ga., type B, Grade 40 steel	One or more layers, any combination, min. 1.5-inch	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 3.0 ft <sup>2</sup> 1.5 x 2-ft grid, staggered	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-82.5
SC-241	Min. 22 ga., type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Dekfast DF-#12-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 3.0 ft <sup>2</sup> 1.5 x 2-ft grid, staggered	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-82.5
SC-242	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch thick, 4x8 ft dimension, one or more layers, any combination	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 2.25 ft <sup>2</sup> 1.5 x 1.5-ft grid (first row of fasteners spaced 0.5 ft from long edges and 1 ft from the short edge)	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-97.5
SC-243	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination. <a href="#">Note C.</a>	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 2.0 ft <sup>2</sup> (16 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-97.5
SC-244	Min. 22 ga., type B, Grade 40 steel	One or more layers, any combination, min. 1.5-inch, preliminarily attached	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	12-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-37.5
SC-245	Min. 22 ga., type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch, preliminarily attached	Dekfast DF-#12-PH3 with SFS isoweld F1-P-6.8-TPO Plate	12-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-37.5
SC-246	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	6-inch o.c. in rows 120-inch o.c.	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-37.5
SC-247	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	12-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-45.0
SC-248	Min. 22 ga., type B, Grade 40 steel	One or more layers, any combination, min. 1.5-inch, preliminarily attached	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	6-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-90.0
SC-249	Min. 22 ga., type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch, preliminarily attached	Dekfast DF-#12-PH3 with SFS isoweld F1-P-6.8-TPO Plate	6-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-90.0
Notes:	<p>A. For these assemblies, the 8 ft insulation board length is placed perpendicular to the steel deck ribs.</p> <p>B. The plate/fastener combination offset 12 inch from adjacent rows.</p> <p>C. For these assemblies, the 8 ft insulation board length is placed perpendicular to the steel deck ribs and each row of insulation is staggered by 1 foot.</p>					

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

System No.	Deck (Note 1)	Insulation Layer (Note 3, Note 13)		Roof Cover (Note 15A)						MDP (psf)
		Type	Attach (Note 5)	Membrane	Fastener (Note 11)	Fastener Spacing	Lap Width	Lap Spacing	Seam Weld	
<b>BARE-BACK MEMBRANE APPLICATIONS:</b>										
SC-250	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra, Mule-Hide TPO-c (FR)	Mule-Hide EHD Fastener (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	12-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-30.0
SC-251	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only), Mule-Hide HDP Fastener (concrete only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	18-inch o.c.	5.5-inch	66.5-inch o.c.	1.5-inch outside	-30.0
SC-252	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	12-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-37.5
SC-253	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only), Mule-Hide HDP Fastener (concrete only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	12-inch o.c.	5.5-inch	66.5-inch o.c.	1.5-inch outside	-37.5
SC-254	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only), Mule-Hide HDP Fastener (concrete only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	6-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-45.0
SC-255	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	12-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-45.0
SC-256	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-52.5
SC-257	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only), Mule-Hide HDP Fastener (concrete only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	6-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-52.5



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

System No.	Deck (Note 1)	Insulation Layer (Note 3, Note 13)		Roof Cover (Note 15A)						MDP (psf)
		Type	Attach (Note 5)	Membrane	Fastener (Note 11)	Fastener Spacing	Lap Width	Lap Spacing	Seam Weld	
SC-258	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only), Mule-Hide HDP Fastener (concrete only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	12-inch o.c.	5.5-inch	42.5-inch o.c.	1.5-inch outside	-52.5
SC-259	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-60.0
SC-260	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	6-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-60.0
SC-261	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	6-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-67.5
SC-262	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	6-inch o.c.	5.5-inch	42.5-inch o.c.	1.5-inch outside	-82.5
SC-263	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only), Mule-Hide HDP Fastener (concrete only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	6-inch o.c.	5.5-inch	42.5-inch o.c.	1.5-inch outside	-112.5
<b>MULE-HIDE TPO-c FLEECE BACK APPLICATIONS:</b>										
SC-264	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Mule-Hide TPO-c Fleece Back	Mule-Hide EHD Fastener (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	12-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-30.0
SC-265	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Mule-Hide TPO-c Fleece Back	Mule-Hide EHD Fastener (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	12-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-37.5
SC-266	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Mule-Hide TPO-c Fleece Back	Mule-Hide EHD Fastener (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-37.5



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

System No.	Deck <a href="#">(Note 1)</a>	Insulation		Roof Cover <a href="#">(Note 15A)</a>			MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Note 5)</a>	Membrane	Fastener <a href="#">(Note 11)</a>	Attachment	
SC-267	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	One or more layers, any combination	Prelim. attached	Mule-Hide TPO-c, Mule-Hide TPO-c (FR) or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	Mule-Hide TPO-c TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 138-inch o.c. The plates are centered over each strip and fastened 6-inch o.c. Roof cover adhered to each strip by first priming with TPO Primer at the strip location, then rolling into place with a hand roller.	-30.0
SC-268	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	One or more layers, any combination	Prelim. attached	Mule-Hide TPO-c, Mule-Hide TPO-c (FR) or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	Mule-Hide TPO-c TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 114-inch o.c. The plates are centered over each strip and fastened 6-inch o.c. Roof cover adhered to each strip by first priming with TPO Primer at the strip location, then rolling into place with a hand roller.	-45.0
SC-269	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	One or more layers, any combination	Prelim. attached	Mule-Hide TPO-c, Mule-Hide TPO-c (FR) or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	Mule-Hide TPO-c TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 90-inch o.c. The plates are centered over each strip and fastened 6-inch o.c. Roof cover adhered to each strip by first priming with TPO Primer at the strip location, then rolling into place with a hand roller.	-52.5
SC-270	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	One or more layers, any combination	Prelim. attached	Mule-Hide TPO-c, Mule-Hide TPO-c (FR) or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	Mule-Hide TPO-c TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 120-inch o.c. The plates are centered over each strip and fastened 6-inch o.c. Roof cover adhered to each strip by first priming with HP-250 Primer at the strip location, then rolling into place with a hand roller.	-60.0
SC-271	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	One or more layers, any combination	Prelim. attached	Mule-Hide TPO-c, Mule-Hide TPO-c (FR) or Mule-Hide TPO-c Extra	Mule-Hide EHD Fastener (steel only) or Mule-Hide Fluted Concrete Nail (concrete only) with Mule-Hide 2.4" Seam Plate	Mule-Hide TPO-c TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 60-inch o.c. The plates are centered over each strip and fastened 12-inch o.c. Roof cover adhered to each strip by first priming with HP-250 Primer at the strip location, then rolling into place with a hand roller.	-60.0

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
<b>MULE-HIDE TPO-C OR MULE-HIDE TPO-C (FR) MEMBRANE APPLICATIONS:</b>								
C-1.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	Aqua Base 120 BA	-45.0

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
C-2.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	Aqua Base 120 BA	-45.0
C-3.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	Aqua Base 120 BA	-157.5
C-4.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 7/16-inch APA rated OSB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	Aqua Base 120 BA	-45.0
C-5.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	Aqua Base 120 BA	-45.0
C-6.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb	-157.5
C-7.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA (RIBBON)	Mule-Hide TPO-c	AeroWeb	-352.5
C-8.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb	-277.5
C-9.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA-DT (FULL)	(Optional) Additional layer(s) base insulation	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c	AeroWeb	-352.5
C-10.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb	-157.5
C-11.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb	-232.5
C-12.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb	-157.5

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
C-13.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 7/16-inch APA rated OSB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb	-157.5
C-14.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 7/16-inch APA rated OSB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb	-187.5
C-15.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> Min. 1.6-inch Optim-R <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb	-127.5
C-16.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (FULL)	<u>Insulation:</u> Min. 1.6-inch Optim-R <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c	AeroWeb	-397.5
C-17.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb	-157.5
C-18.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA (RIBBON)	Mule-Hide TPO-c	AeroWeb	-397.5
C-19.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb	-277.5
C-20.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (FULL)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c	AeroWeb	-397.5
C-21.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	Mule-Hide TPO-c	AeroWeb	-390.0
C-22.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb	-157.5

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
C-23.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA (RIBBON)	Mule-Hide TPO-c	AeroWeb	-352.5
C-24.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb	-277.5
C-25.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (FULL)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c	AeroWeb	-352.5
C-26.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb	-157.5
C-27.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb	-187.5
C-28.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	LVOC BA	-157.5
C-29.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	LVOC BA	-157.5
C-30.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	LVOC BA	-127.5
C-31.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 7/16-inch APA rated OSB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	LVOC BA	-157.5
C-32.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> Min. 1.6-inch Optim-R <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	LVOC BA	-127.5

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
C-33.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (FULL)	<u>Insulation</u> : Min. 1.6-inch Optim-R <u>Coverboard</u> : Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c	LVOC BA	-397.5
C-34.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	LVOC BA	-157.5
C-35.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (RIBBON)	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA (RIBBON)	Mule-Hide TPO-c	LVOC BA	-397.5
C-36.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (RIBBON)	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	LVOC BA	-277.5
C-37.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (FULL)	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c	LVOC BA	-397.5
C-38.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	Mule-Hide TPO-c	LVOC BA	-390.0
C-39.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 0.5-inch EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	LVOC BA	-157.5
C-40.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (RIBBON)	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 0.5-inch EcoStorm VSH	Helix Max LRA (RIBBON)	Mule-Hide TPO-c	LVOC BA	-352.5
C-41.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (RIBBON)	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 0.5-inch EcoStorm VSH	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	LVOC BA	-277.5

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
C-42.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (FULL)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c	LVOC BA	-352.5
C-43.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	LVOC BA	-157.5
C-44.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-157.5
C-45.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-352.5
C-46.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-277.5
C-47.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA-DT (FULL)	(Optional) Additional layer(s) base insulation	Helix Max LRA (FULL)	Mule-Hide TPO-c	TPO-c BA	-352.5
C-48.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-157.5
C-49.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-232.5
C-50.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Ultralight Coated Glass-Mat Roof Board	Helix Max LRA (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-67.5
C-51.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-157.5
C-52.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 7/16-inch APA rated OSB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-157.5



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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
C-53.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 7/16-inch APA rated OSB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-187.5
C-54.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> Min. 1.6-inch Optim-R <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-127.5
C-55.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (FULL)	<u>Insulation:</u> Min. 1.6-inch Optim-R <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c	TPO-c BA	-397.5
C-56.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-157.5
C-57.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-397.5
C-58.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-277.5
C-59.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (FULL)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c	TPO-c BA	-397.5
C-60.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	Mule-Hide TPO-c	TPO-c BA	-390.0
C-61.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-157.5
C-62.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-352.5

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
C-63.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-277.5
C-64.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (FULL)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c	TPO-c BA	-352.5
C-65.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-157.5
C-66.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-157.5
C-67.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-187.5
C-68.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	TPO-c BA	-187.5
C-69.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	OB500	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Mule-Hide TPO-c	AeroWeb, TPO-c BA, LVOC BA	-120.0
C-70.	Min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	OB500	(Optional) Additional layers of base insulation	OB500	Mule-Hide TPO-c	Aqua Base 120	-127.5
C-71.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch ACFoam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	OB500	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck or DensDeck Prime	OB500	Mule-Hide TPO-c	Aqua Base 120	-127.5
C-72.	Min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	OB500	(Optional) Additional layers of base insulation	OB500	Mule-Hide TPO-c	TPO-c BA	-150.0

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
C-73.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	OB500	(Optional) Additional layers of base insulation	OB500	Mule-Hide TPO-c	AeroWeb	-150.0
C-74.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch ACFoam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	OB500	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck or DensDeck Prime	OB500	Mule-Hide TPO-c	TPO-c BA	-150.0
C-75.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch ACFoam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	OB500	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	OB500	Mule-Hide TPO-c	AeroWeb	-150.0
C-76.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	OB500	(Optional) Min. 0.5-inch base insulation	OB500	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-157.5
C-77.	Min. 2,500 psi structural concrete	Min. 2-inch Poly ISO 1, Poly ISO 1-DWD	OB500	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Mule-Hide TPO-c	AeroWeb, TPO-c BA or Aqua Base 120	-247.5
<b>MULE-HIDE TPO-c FLEECE BACK MEMBRANE APPLICATIONS (PARTIAL BOND):</b>								
C-78.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0
C-79.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD or Poly ISO 1-HD Plus	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0
C-80.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD or Poly ISO 1-HD Plus	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	-90.0
C-81.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	-90.0

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
C-82.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>								
C-83.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-157.5
C-84.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-397.5
C-85.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-277.5
C-86.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA-DT (FULL)	(Optional) Additional layer(s) base insulation	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-397.5
C-87.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-390.0
C-88.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-157.5
C-89.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-397.5
C-90.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-277.5
C-91.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (FULL)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-397.5

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
C-92.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-390.0
C-93.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-127.5
C-94.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 7/16-inch APA rated OSB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-157.5
C-95.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 7/16-inch APA rated OSB	Helix Max LRA (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-397.5
C-96.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 7/16-inch APA rated OSB	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-277.5
C-97.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (FULL)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 7/16-inch APA rated OSB	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-397.5
C-98.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 7/16-inch APA rated OSB	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-390.0
C-99.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> Min. 1.6-inch Optim-R <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-127.5
C-100.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (FULL)	<u>Insulation:</u> Min. 1.6-inch Optim-R <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-390.0

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
C-101.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-157.5
C-102.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-157.5
C-103.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-352.5
C-104.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-277.5
C-105.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (FULL)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-352.5
C-106.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-112.5
C-107.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-157.5
C-108.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-187.5
C-109.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-157.5
C-110.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-397.5



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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
C-111.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-277.5
C-112.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA-DT (FULL)	(Optional) Additional layer(s) base insulation	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-397.5
C-113.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-390.0
C-114.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-157.5
C-115.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-397.5
C-116.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-277.5
C-117.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (FULL)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-397.5
C-118.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-390.0
C-119.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-157.5

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
C-120.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-187.5
C-121.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 7/16-inch APA rated OSB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-157.5
C-122.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (RIBBON)	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 7/16-inch APA rated OSB	Helix Max LRA (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-397.5
C-123.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (RIBBON)	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 7/16-inch APA rated OSB	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-277.5
C-124.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (FULL)	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 7/16-inch APA rated OSB	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-397.5
C-125.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 7/16-inch APA rated OSB	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-390.0
C-126.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (RIBBON)	Insulation: Min. 1.6-inch Optim-R Coverboard: Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-127.5
C-127.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (FULL)	Insulation: Min. 1.6-inch Optim-R Coverboard: Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-390.0
C-128.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-157.5

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
C-129.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-397.5
C-130.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-277.5
C-131.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (FULL)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-397.5
C-132.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-390.0
C-133.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-157.5
C-134.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-352.5
C-135.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-277.5
C-136.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (FULL)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-352.5
C-137.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-112.5

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
C-138.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-157.5
C-139.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-187.5
C-140.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-157.5
C-141.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA (RIBBON)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-280.0
C-142.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-277.5
C-143.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA-DT (FULL)	(Optional) Additional layer(s) base insulation	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-280.0
C-144.	Min. 2,500 psi structural concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-280.0
C-145.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-157.5
C-146.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-157.5
C-147.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA (RIBBON)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-395.0

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
C-148.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-277.5
C-149.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (FULL)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-395.0
C-150.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-390.0
C-151.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> Min. 1.6-inch Optim-R <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-127.5
C-152.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (FULL)	<u>Insulation:</u> Min. 1.6-inch Optim-R <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-397.5
C-153.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-157.5
C-154.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA (RIBBON)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-397.5
C-155.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-277.5
C-156.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (FULL)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-397.5

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
C-157.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD or Poly ISO 1-HD Plus	Helix Max LRA or Helix Max LRA-DT (SPLATTER)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-390.0
C-158.	Min. 2,500 psi structural concrete	Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-157.5
C-159.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA (RIBBON)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-352.5
C-160.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-277.5
C-161.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA-DT (FULL)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch EcoStorm VSH	Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-352.5
C-162.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-112.5
<b>MULE-HIDE TPO-C FLEECE BACK PLUS MEMBRANE APPLICATIONS:</b>								
C-163.	Min. 2,500 psi structural concrete	Min. 0.5-inch HP Recovery Board	Hot Asphalt	None	Hot Asphalt	Mule-Hide TPO-c Fleece Back Plus	Hot Asphalt	-150.0
C-164.	Min. 2,500 psi structural concrete	One or more layers min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD, Poly ISO 2 or ACfoam II	Hot Asphalt	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch HP Recovery Board	Hot Asphalt	Mule-Hide TPO-c Fleece Back Plus	Hot Asphalt	-150.0
<b>MULE-HIDE SA-TPO MEMBRANE APPLICATIONS:</b>								
C-165.	Min. 2,500 psi structural concrete	(Optional) One or more layers, min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA (FULL)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Insulfoam SP	Helix Max LRA (FULL)	Mule-Hide SA-TPO	Self-adhered	-315.0



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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Membrane	Application	
<b>MULE-HIDE TPO-C FLEECE BACK RL APPLICATIONS:</b>								
C-166.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2.0-inch InsulBase RL	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back RL		-142.5

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

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Base Ply	Top Ply	
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>								
C-167.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-165.0
<b>MULE-HIDE TPO-C FLEECE BACK PLUS MEMBRANE APPLICATIONS:</b>								
C-168.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-157.5
C-169.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-202.5

**TABLE 3C: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER**  
**SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER**

System No.	Deck <a href="#">(Note 1)</a>	Insulation Layer <a href="#">(Note 3, Note 13)</a>	Attachment		Roof Cover <a href="#">(Note 15B)</a>	MDP <a href="#">(psf)</a>
			Fastener <a href="#">(Note 11)</a>	Density		
<b>MULE-HIDE TPO INDUCTION WELD PLATE SYSTEMS:</b>						
C-170.	Min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination. <a href="#">Note B.</a>	Mule-Hide HDP Fastener or Mule-Hide Fluted Concrete Nail and Mule-Hide TPO Induction Weld Plate	1 per 5.3 ft <sup>2</sup> (6 parts per 4x8 ft board) <a href="#">Note B.</a>	Mule-Hide TPO-c, Mule-Hide TPO-c Extra or Mule-Hide TPO-c (FR) induction welded with Trufast Induction Welding Tool per manufacturer's instructions.	-45.0
C-171.	Min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination. <a href="#">Note B.</a>	Mule-Hide HDP Fastener or Mule-Hide Fluted Concrete Nail and Mule-Hide TPO Induction Weld Plate	1 per 4.0 ft <sup>2</sup> (8 parts per 4x8 ft board) <a href="#">Note B.</a>	Mule-Hide TPO-c, Mule-Hide TPO-c Extra or Mule-Hide TPO-c (FR) induction welded with Trufast Induction Welding Tool per manufacturer's instructions.	-52.5
C-172.	Min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination. <a href="#">Note B.</a>	Mule-Hide HDP Fastener or Mule-Hide Fluted Concrete Nail and Mule-Hide TPO Induction Weld Plate	1 per 2.0 ft <sup>2</sup> (16 parts per 4x8 ft board) <a href="#">Note B.</a>	Mule-Hide TPO-c, Mule-Hide TPO-c Extra or Mule-Hide TPO-c (FR) induction welded with Trufast Induction Welding Tool per manufacturer's instructions.	-105.0
C-173.	Min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached <a href="#">(Note 5)</a>	Mule-Hide HDP Fastener or Mule-Hide Fluted Concrete Nail and Mule-Hide TPO Induction Weld Plate	6-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c, Mule-Hide TPO-c Extra or Mule-Hide TPO-c (FR) induction welded with Trufast Induction Welding Tool per manufacturer's instructions.	-90.0
<b>RHINO BOND SYSTEMS:</b>						
C-174.	Min. 2,500 psi structural concrete	Min. 1-inch thick, one or more layers, any combination.	OMG Heavy Duty Concrete Fastener or OMG CD-10 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 5.3 ft <sup>2</sup> (6 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29; Note A	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-45.0
C-175.	Min. 2,500 psi structural concrete	Min. 1-inch thick, one or more layers, any combination.	OMG Heavy Duty Concrete Fastener or OMG CD-10 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 4.0 ft <sup>2</sup> (8 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29; Note A	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-52.5
C-176.	Min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination. <a href="#">Note B.</a>	OMG Heavy Duty Concrete Fastener or OMG CD-10 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 3.2 ft <sup>2</sup> (10 parts per 4 x 8 ft board) <a href="#">Note B.</a>	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-52.5
C-177.	Min. 2,500 psi structural concrete	Min. 1-inch thick, one or more layers, any combination.	OMG Heavy Duty Concrete Fastener or OMG CD-10 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 4.0 ft <sup>2</sup> (8 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29; Note A	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-60.0
C-178.	Min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination. <a href="#">Note B.</a>	OMG Heavy Duty Concrete Fastener or OMG CD-10 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 2.7 ft <sup>2</sup> (12 parts per 4 x 8 ft board) <a href="#">Note B.</a>	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-67.5
C-179.	Min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination. <a href="#">Note B.</a>	OMG Heavy Duty Concrete Fastener or OMG CD-10 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	1 per 2.0 ft <sup>2</sup> (16 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-97.5

**TABLE 3C: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER  
SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER**

System No.	Deck <a href="#">(Note 1)</a>	Insulation Layer <a href="#">(Note 3, Note 13)</a>	Attachment		Roof Cover <a href="#">(Note 15B)</a>	MDP <a href="#">(psf)</a>
			Fastener <a href="#">(Note 11)</a>	Density		
C-180.	Min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached	OMG Heavy Duty Concrete Fastener or OMG CD-10 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	18-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-30.0
C-181.	Min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached	OMG Heavy Duty Concrete Fastener and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	12-inch o.c. in rows 120-inch o.c.	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-30.0
C-182.	Min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached	OMG Heavy Duty Concrete Fastener or OMG CD-10 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	6-inch o.c. in rows 120-inch o.c.	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-37.5
C-183.	Min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached	OMG Heavy Duty Concrete Fastener or OMG CD-10 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	12-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-37.5
C-184.	Min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached	OMG Heavy Duty Concrete Fastener or OMG CD-10 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	12-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-45.0
C-185.	Min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached	OMG Heavy Duty Concrete Fastener or OMG CD-10 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	6-inch o.c. in rows 120-inch o.c.	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-52.5
C-186.	Min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached	OMG Heavy Duty Concrete Fastener or OMG CD-10 and RhinoBond Insulation Plate (TPO) or RhinoBond TreadSafe Plate (TPO)	6-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-67.5
<b>ISOWELD INDUCTION WELDING SYSTEM:</b>						
C-187.	Min. 2,500 psi structural concrete	Min. 1-inch thick, one or more layers, any combination.	Dekfast DF-#14-PH3 or Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 5.3 ft <sup>2</sup> (6 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29; <a href="#">Note A</a>	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-45.0
C-188.	Min. 2,500 psi structural concrete	One or more layers, any combination, min. 1.5-inch	Dekfast DF-#14-PH3 or Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 6 ft <sup>2</sup> 2x3-ft grid, staggered	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-52.5
C-189.	Min. 2,500 psi structural concrete	One or more layers, any combination, min. 1.5-inch	Dekfast DF-#14-PH3 or Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 4.0 ft <sup>2</sup> 2x2-ft grid, staggered	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-60.0
C-190.	Min. 2,500 psi structural concrete	One or more layers, any combination, min. 1.5-inch	Dekfast DF-#14-PH3 or Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 3.0 ft <sup>2</sup> 1.5 x 2-ft grid, staggered	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-82.5

**TABLE 3C: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER**  
**SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER**

System No.	Deck <a href="#">(Note 1)</a>	Insulation Layer <a href="#">(Note 3, Note 13)</a>	Attachment		Roof Cover <a href="#">(Note 15B)</a>	MDP <a href="#">(psf)</a>
			Fastener <a href="#">(Note 11)</a>	Density		
C-191.	Min. 2,500 psi structural concrete	Min. 1.5-inch thick, 4x8 ft dimension, one or more layers, any combination	Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 2.25 ft <sup>2</sup> 1.5 x 1.5-ft grid (first row of fasteners spaced 0.5 ft from long edges and 1 ft from the short edge)	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-97.5
C-192.	Min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination. <a href="#">Note B.</a>	Dekfast DF-#14-PH3 or Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	1 per 2.0 ft <sup>2</sup> (16 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-97.5
C-193.	Min. 2,500 psi structural concrete	One or more layers, any combination, min. 1.5-inch, preliminarily attached	Dekfast DF-#14-PH3 or Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	12-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-37.5
C-194.	Min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached	Dekfast DF-#14-PH3 or Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	12-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-45.0
C-195.	Min. 2,500 psi structural concrete	One or more layers, any combination, min. 1.5-inch preliminarily attached	Dekfast DF-#14-PH3 or Dekfast DF-#15-PH3 with SFS isoweld F1-P-6.8-TPO Plate	6-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-90.0
Notes:	<p>A. The plate/fastener combination offset 12 inch from adjacent rows.</p> <p>B. For these assemblies each row of insulation is staggered by 1 foot.</p>					

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

System No.	Deck <a href="#">(Note 1)</a>	Primer	Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
			Type	Attach	
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>					
C-196.	Min. 2,500 psi structural concrete	None	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL)	-495.0
C-197.	Min. 2,500 psi structural concrete	None	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (SPLATTER at 3.5-4.0 lbs/sq)	-722.5
<b>MULE-HIDE TPO-C FLEECE BACK PLUS MEMBRANE APPLICATIONS:</b>					
C-198.	Min. 2,500 psi structural concrete	None	Mule-Hide TPO-c Fleece Back Plus	Hot Asphalt	-97.5
C-199.	Min. 2,500 psi structural concrete	CCW-702 or cut-back primer at 250-300 ft <sup>2</sup> /gal	Mule-Hide TPO-c Fleece Back Plus	Hot Asphalt	-495.0
<b>MULE-HIDE SA-TPO MEMBRANE APPLICATIONS:</b>					
C-200.	Min. 2,500 psi structural concrete	None	Mule-Hide SA-TPO	Self-adhered	-425.0

**TABLE 4A: LIGHTWEIGHT CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)  
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck <a href="#">(Note 1)</a>	Lightweight Concrete <a href="#">(Note 14)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>	MDP (psf)
			Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>		
<b>MULE-HIDE TPO-c OR MULE-HIDE TPO-c (FR) MEMBRANE APPLICATIONS:</b>								
LWC-1	Min. 22 ga., Type BV, Grade 40 steel	Min. 300 psi, pre-existent cellular lightweight insulating concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) of base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-52.5
LWC-2	Min. 22 ga., Type BV, Grade 40 steel	Min. 300 psi, pre-existent cellular lightweight insulating concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH or min. 1.5-inch Poly ISO 1-HD-Composite or min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-52.5
LWC-3	Min. 22 ga., Type BV, Grade 40 steel	Min. 300 psi, pre-existent cellular lightweight insulating concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	(Optional) Additional layer(s) of base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-75.0
LWC-4	Min. 22 ga., Type BV, Grade 40 steel	Min. 300 psi, pre-existent cellular lightweight insulating concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH or min. 1.5-inch Poly ISO 1-HD-Composite or min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-75.0
LWC-5	Min. 2,500 psi structural concrete	Min. 300 psi, pre-existent cellular lightweight insulating concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH or or min. 1.5-inch Poly ISO 1-HD-Composite or min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-187.5
LWC-6	Min. 2,500 psi structural concrete	Min. 300 psi, pre-existent cellular lightweight insulating concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH or or min. 1.5-inch Poly ISO 1-HD-Composite or min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c / AeroWeb, LVOC BA or TPO-c BA	-350.0

**TABLE 4A: LIGHTWEIGHT CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)  
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck <a href="#">(Note 1)</a>	Lightweight Concrete <a href="#">(Note 14)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>	MDP (psf)
			Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>		
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>								
LWC-7	Min. 22 ga., Type BV, Grade 40 steel	Min. 300 psi, pre-existent cellular lightweight insulating concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) of base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-52.5
LWC-8	Min. 22 ga., Type BV, Grade 40 steel	Min. 300 psi, pre-existent cellular lightweight insulating concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH or min. 1.5-inch Poly ISO 1-HD-Composite or min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-52.5
LWC-9	Min. 22 ga., Type BV, Grade 40 steel	Min. 300 psi, pre-existent cellular lightweight insulating concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	(Optional) Additional layer(s) of base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-75.0
LWC-10	Min. 22 ga., Type BV, Grade 40 steel	Min. 300 psi, pre-existent cellular lightweight insulating concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH or min. 1.5-inch Poly ISO 1-HD-Composite or min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-75.0
LWC-11	Min. 2,500 psi structural concrete	Min. 300 psi, pre-existent cellular lightweight insulating concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) of base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-187.5
LWC-12	Min. 2,500 psi structural concrete	Min. 300 psi, pre-existent cellular lightweight insulating concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH or or min. 1.5-inch Poly ISO 1-HD-Composite or min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-187.5
LWC-13	Min. 2,500 psi structural concrete	Min. 300 psi, pre-existent cellular lightweight insulating concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-187.5



**TABLE 4A: LIGHTWEIGHT CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)  
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck <a href="#">(Note 1)</a>	Lightweight Concrete <a href="#">(Note 14)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>	MDP (psf)
			Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>		
LWC-14	Min. 2,500 psi structural concrete	Min. 300 psi, pre-existent cellular lightweight insulating concrete	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	(Optional) Additional layer(s) of base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-350.0
LWC-15	Min. 2,500 psi structural concrete	Min. 300 psi, pre-existent cellular lightweight insulating concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH or or min. 1.5-inch Poly ISO 1-HD-Composite or min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-350.0
LWC-16	Min. 2,500 psi structural concrete	Min. 300 psi, pre-existent cellular lightweight insulating concrete	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-350.0

**TABLE 4B: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)  
SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck <a href="#">(Note 1)</a>	Lightweight Concrete <a href="#">(Note 14)</a>	Anchor Sheet			Insulation			Roof Cover <a href="#">(Note 15)</a>	MDP (psf)
			Type	Fastener <a href="#">(Note 11)</a>	Attach	Base Layer	Top Layer(s)	Attach <a href="#">(Notes 6,7,8)</a>		
LWC-17	Min. 22 ga., Type B, Grade 33 vented steel or structural concrete	ELASTIZELL (NOA 23-0817.05): Min. 250 psi, Min. 2-inch thick, Elastizell Range II LWIC	JM Perma Ply 28	OMG CR Assembled Base Sheet Fastener	9-inch o.c. in the 3-inch side lap and 9-inch o.c. in two staggered rows in the center of the sheet	Min. 1.0-inch Poly ISO 1, Poly ISO 1-DWD, Poly ISO 2 or ACFOAM II	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1.0-inch HP Recovery Board	Hot asphalt	Mule-Hide TPO-c Fleece Back Plus / Hot asphalt	-45.0

**TABLE 4C: LIGHTWEIGHT CONCRETE OVER STEEL DECK - NEW CONSTRUCTION OR RE-ROOF (TEAR OFF)  
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER**

System No.	Deck <a href="#">(Note 1)</a>	Lightweight Concrete <a href="#">(Note 14)</a>				Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Surface Treatment	Supplemental Attachment		Type	Attach	
				Fastener	Attach			
<b>MULE-HIDE TPO-c OR MULE-HIDE TPO-c (FR) MEMBRANE APPLICATIONS:</b>								
LWC-18	Min. 24 ga., Type 1.0FDV Grade 80 steel at max. 6 ft spans; 5/8" puddle welds with weld washers, 8-inch o.c.	CELCORE (FL2037): Treatment: Celcore S-1 Deck Preparation Slurry LWC: Min. 370 psi, Min. 2-inch thick, Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture	Celcore PVA	None	N/A	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-37.5
LWC-19	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6-inch o.c.	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (cast with or without min. 1-inch EPS holey board). <a href="#">Note A.</a>	None	None	N/A	Mule-Hide TPO-c	Aqua Base 120, AeroWeb, LVOC BA or TPO-c BA	-60.0
LWC-20	Min. 22 ga., Type B, Grade 33 steel at max. 4 ft spans attached 6-inch o.c.	CELCORE (FL2037): Min. 38 pcf wet cast density, min. 200 psi, min. 1.625-inch thick Celcore MF Cellular Concrete followed by min. 1-inch EPS holey board with min. 2.0-inch thick top slurry coat. <a href="#">Note A.</a>	Celcore PVA	None	N/A	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-67.5
LWC-21	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6-inch o.c.	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (cast with or without min. 1-inch EPS holey board). <a href="#">Note A.</a>	None	Mule-Hide HDP Fastener with Mule-Hide 3" Insulation Plate	1 per 9.0 ft <sup>2</sup>	Mule-Hide TPO-c	Aqua Base 120, AeroWeb, LVOC BA or TPO-c BA	-67.5 <a href="#">Note B</a>
LWC-22	Min. 22 ga., Type BV, Grade 40 steel at max. 6 ft spans; 5/8" puddle welds, 6-inch o.c.	CELCORE (FL2037): Treatment: Celcore S-1 Deck Preparation Slurry LWC: Min. 310 psi, Min. 2-inch thick, Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture	Celcore PVA	None	N/A	Mule-Hide TPO-c	AeroWeb	-82.5
LWC-23	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6-inch o.c.	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (cast with or without min. 1-inch EPS holey board). <a href="#">Note A.</a>	None	Mule-Hide HDP Fastener with Mule-Hide 3" Insulation Plate	1 per 1.0 ft <sup>2</sup>	Mule-Hide TPO-c	Aqua Base 120, AeroWeb, LVOC BA or TPO-c BA	-120.0 <a href="#">Note B</a>
LWC-24	Min. 22 ga., Type BV, Grade 80 steel; max. 5-ft spans; 5/8" puddle welds with weld-washers spaced 6-inch o.c.	CONCRECEL (FL5584 & FL10500): Deck primed with Concrecel Bonding Agent at 600 ft <sup>2</sup> /gallon. Min. 350 psi, min. 2-inch thick, Concrecel Lightweight Insulating Concrete (Minimum 1-inch thick, minimum 1.0 pcf EPS holey board required)	(Optional) Concrecel Curing Compound	None	N/A	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-97.5
LWC-25	Min. 22 ga., Type BV, Grade 80 steel; max. 6-ft spans; 5/8" puddle welds spaced 6-inch o.c.	CONCRECEL (FL5584 & FL10500): Min. 350 psi, min. 2-inch thick, Concrecel Lightweight Insulating Concrete (No EPS board)	None	None	N/A	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-105.0

**TABLE 4C: LIGHTWEIGHT CONCRETE OVER STEEL DECK - NEW CONSTRUCTION OR RE-ROOF (TEAR OFF)  
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER**

System No.	Deck <a href="#">(Note 1)</a>	Lightweight Concrete <a href="#">(Note 14)</a>				Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Surface Treatment	Supplemental Attachment		Type	Attach	
				Fastener	Attach			
LWC-26	Min. 22 ga., Type BV, Grade 80 steel; max. 6-ft spans; 5/8" puddle welds with weld-washers spaced 6-inch o.c.	CONCRECEL (FL5584 & FL10500): Min. 350 psi, min. 2-inch thick, Concrecel Lightweight Insulating Concrete (Minimum 2-inch thick, minimum 1.0 pcf EPS holey board required)	None	None	N/A	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-135.0
LWC-27	Min. 20 ga., Type BV, Grade 33 steel; max. 6-ft 3-inch spans; 5/8" puddle welds or Tek/5 screws spaced 6-inch o.c.	ELASTIZELL (NOA 23-0817.05): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (EPS board optional)	None	None	N/A	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-52.5
LWC-28	Min. 22 ga., Type BV, Grade 33 steel; max. 6-ft spans; 5/8" puddle welds or Tek/5 screws spaced 6-inch o.c.	ELASTIZELL (NOA 23-0817.05): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (Minimum 2-inch thick, minimum 1.0 pcf EPS holey board required)	None	None	N/A	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-82.5
LWC-29	Min. 22 ga., Type BV, Grade 33 steel; max. 5-ft spans; 5/8" puddle welds or Tek/5 screws spaced 6-inch o.c.	ELASTIZELL (NOA 23-0817.05): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (Minimum 1-inch thick, minimum 1.0 pcf EPS holey board required)	None	None	N/A	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-97.5
LWC-30	Min. 22 ga., Type BV, Grade 33 steel; max. 5-ft spans; 5/8" puddle welds or Tek/5 screws spaced 6-inch o.c.	ELASTIZELL (NOA 23-0817.05): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (Minimum 2-inch thick, minimum 1.0 pcf EPS holey board required)	None	None	N/A	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-112.5
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (PARTIAL BOND):</b>								
LWC-31	Min. 24 ga., Type 1.0FDV Grade 80 steel at max. 6 ft spans; 5/8" puddle welds with weld washers, 8-inch o.c.	CELCORE (FL2037): Treatment: Celcore S-1 Deck Preparation Slurry LWC: Min. 370 psi, Min. 2-inch thick, Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture	Celcore PVA	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-37.5
LWC-32	Min. 22 ga., Type BV, Grade 40 steel at max. 6 ft spans; 5/8" puddle welds, 6-inch o.c.	CELCORE (FL2037): Treatment: Celcore S-1 Deck Preparation Slurry LWC: Min. 310 psi, Min. 2-inch thick, Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture	Celcore PVA	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	-82.5
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>								
LWC-33	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6-inch o.c.	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (cast with or without min. 1-inch EPS holey board). <a href="#">Note A.</a>	Celcore PVA	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL)	-60.0

**TABLE 4C: LIGHTWEIGHT CONCRETE OVER STEEL DECK - NEW CONSTRUCTION OR RE-ROOF (TEAR OFF)  
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER**

System No.	Deck <a href="#">(Note 1)</a>	Lightweight Concrete <a href="#">(Note 14)</a>				Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Surface Treatment	Supplemental Attachment		Type	Attach	
				Fastener	Attach			
LWC-34	Min. 22 ga., Type B, Grade 33 steel at max. 4 ft spans attached 6-inch o.c.	CELCORE (FL2037): Min. 38 pcf wet cast density, min. 200 psi, min. 1.625-inch thick Celcore MF Cellular Concrete followed by min. 1-inch EPS holey board with min. 2.0-inch thick top slurry coat. <a href="#">Note A.</a>	Celcore PVA	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL)	-67.5
LWC-35	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6-inch o.c.	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (cast with or without min. 1-inch EPS holey board). <a href="#">Note A.</a>	Celcore PVA	Mule-Hide HDP Fastener with Mule-Hide 3" Insulation Plate	1 per 9.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL)	-67.5 <a href="#">Note B</a>
LWC-36	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6-inch o.c.	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (cast with or without min. 1-inch EPS holey board). <a href="#">Note A.</a>	Celcore PVA	Mule-Hide HDP Fastener with Mule-Hide 3" Insulation Plate	1 per 1.0 ft <sup>2</sup>	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL)	-120.0 <a href="#">Note B</a>
LWC-37	Min. 22 ga., Type BV, Grade 40 steel; 6 ft span, Teks/5 screws, 6" o.c.	ELASTIZELL (NOA 23-0817.05): Min. 530 psi, min. 2-inch thick, Elastizell Range III LWIC	None	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL)	-52.5
LWC-38	Min. 20 ga., Type BV, Grade 33 steel; max. 6-ft 3-inch spans; 5/8" puddle welds or Tek/5 screws spaced 6-inch o.c.	ELASTIZELL (NOA 23-0817.05): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (EPS board optional)	None	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-52.5
LWC-39	Min. 22 ga., Type BV, Grade 33 steel; max. 6-ft spans; 5/8" puddle welds or Tek/5 screws spaced 6-inch o.c.	ELASTIZELL (NOA 23-0817.05): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (Minimum 2-inch thick, minimum 1.0 pcf EPS holey board required)	None	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-82.5
LWC-40	Min. 22 ga., Type BV, Grade 33 steel; max. 5-ft spans; 5/8" puddle welds or Tek/5 screws spaced 6-inch o.c.	ELASTIZELL (NOA 23-0817.05): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (Minimum 1-inch thick, minimum 1.0 pcf EPS holey board required)	None	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-97.5
LWC-41	Min. 22 ga., Type BV, Grade 33 steel; max. 5-ft spans; 5/8" puddle welds or Tek/5 screws spaced 6-inch o.c.	ELASTIZELL (NOA 23-0817.05): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (Minimum 2-inch thick, minimum 1.0 pcf EPS holey board required)	None	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-112.5

**TABLE 4C: LIGHTWEIGHT CONCRETE OVER STEEL DECK - NEW CONSTRUCTION OR RE-ROOF (TEAR OFF)**  
**SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER**

System No.	Deck <a href="#">(Note 1)</a>	Lightweight Concrete <a href="#">(Note 14)</a>			Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>	
		Type	Surface Treatment	Supplemental Attachment		Type		Attach
				Fastener	Attach			
Notes:	<p>A. If the type of LWC to be used on the project is unknown, as in a re-roof (tear-off) condition, compressive strength and fastener withdrawal resistance testing shall be conducted. Compressive strength testing shall be in accordance with ASTM C495 (for new pour) or ASTM C109 (for existing) and shall yield a minimum 200 psi result. Field withdrawal resistance testing in accordance with <a href="#">Note 11</a> shall yield an average withdrawal performance not less than 55 lbf with a Trufast FM-90 Base Sheet Fastener. If question exists as to the adhesion to the LWC surface, field testing in accordance with <a href="#">Note 12</a> is recommended. All testing shall be performed by an accredited testing agency acceptable to the Authority Having Jurisdiction.</p> <p>B. Linear interpolation between supplemental attachment at 1 per 9 ft<sup>2</sup> for -67.5 psf and 1 per 1.0 ft<sup>2</sup> for -120.0 psf is permissible. Such interpolation shall be performed by a qualified design professional to the satisfaction of the Authority Having Jurisdiction.</p>							

**TABLE 4D: LIGHTWEIGHT CONCRETE OVER STRUCTURAL CONCRETE – NEW CONSTRUCTION OR RE-ROOF (TEAR-OFF)**  
**SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER**

System No.	Deck <a href="#">(Note 1)</a>	Lightweight Concrete <a href="#">(Note 14)</a>	Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
			Membrane	Application	
<b>MULE-HIDE TPO-C OR MULE-HIDE TPO-C (FR) MEMBRANE APPLICATIONS:</b>					
LWC-42	Min. 2,500 psi structural concrete	CELCORE (FL2037): Min. 300 psi, Min. 2-inch thick, Celcore Cellular Concrete (EPS board optional)	Mule-Hide TPO-c	Aqua Base 120	-82.5
LWC-43	Min. 2,500 psi structural concrete	CELCORE (FL2037): Min. 300 psi, Min. 2-inch thick, Celcore Cellular Concrete (EPS board optional)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-135.0
LWC-44	Min. 2,500 psi structural concrete	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional). <a href="#">Note A.</a>	Mule-Hide TPO-c	Aqua Base 120	-217.5
LWC-45	Min. 2,500 psi structural concrete	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional). <a href="#">Note A.</a>	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-480.0
LWC-46	Min. 2,500 psi structural concrete	CONCRECEL (FL5584 & FL10500): Min. 350 psi, min. 2-inch thick, Concrecel Lightweight Insulating Concrete (EPS board optional)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-452.5
LWC-47	Min. 2,500 psi structural concrete	ELASTIZELL (NOA 23-0817.05): Min. 250 psi, Min. 2-inch thick, Elastizell Range II LWIC	Mule-Hide TPO-c	Aqua Base 120	-67.5
LWC-48	Min. 2,500 psi structural concrete	ELASTIZELL (NOA 23-0817.05): Min. 250 psi, Min. 2-inch thick, Elastizell Range II LWIC (EPS board optional)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-240.0
LWC-49	Min. 2,500 psi structural concrete	ELASTIZELL (NOA 23-0817.05): Min. 300 psi, Min. 2-inch thick, Elastizell Range II LWIC (no EPS board)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-495.0
LWC-50	Min. 2,500 psi structural concrete	Min. 350 psi, pre-existent cellular lightweight insulating concrete; <b>Note:</b> Fastener Withdrawal; <i>OMG CR-R Assembled Base Sheet Fastener (1.7 in.) ≥ 101 lbf per <a href="#">Note 11</a>.</i>	Mule-Hide TPO-c	TPO-c BA	-452.5
LWC-51	Min. 2,500 psi structural concrete	Min. 320 psi, pre-existent cellular lightweight insulating concrete; <b>Note:</b> Fastener Withdrawal; <i>OMG CR-R Assembled Base Sheet Fastener (1.7 in.) ≥ 148 lbf per <a href="#">Note 11</a>.</i>	Mule-Hide TPO-c	TPO-c BA	-492.5

**TABLE 4D: LIGHTWEIGHT CONCRETE OVER STRUCTURAL CONCRETE – NEW CONSTRUCTION OR RE-ROOF (TEAR-OFF)**  
**SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER**

System No.	Deck <a href="#">(Note 1)</a>	Lightweight Concrete <a href="#">(Note 14)</a>	Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
			Membrane	Application	
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>					
LWC-52	Min. 2,500 psi structural concrete	CELCORE (FL2037): Min. 270 psi, Min. 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture (EPS board optional) Surfacing: Celcore SBS (Sanded Bonding Surface) at 1 gal/square.	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL)	-225.0
LWC-53	Min. 2,500 psi structural concrete	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional). <a href="#">Note A.</a>	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL)	-232.5
LWC-54	Min. 2,500 psi structural concrete	ELASTIZELL (NOA 23-0817.05): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (EPS board optional)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-240.0
LWC-55	Min. 2,500 psi structural concrete	ELASTIZELL (NOA 23-0817.05): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (no EPS board)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-250.0
LWC-56	Min. 2,500 psi structural concrete	Min. 320 psi, pre-existent cellular lightweight insulating concrete; <b>Note: Fastener Withdrawal; OMG CR-R Assembled Base Sheet Fastener (1.7 in.) ≥ 148 lbf per <a href="#">Note 11.</a></b>	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-250.0
LWC-57	Min. 2,500 psi structural concrete	Min. 350 psi, pre-existent cellular lightweight insulating concrete; <b>Note: Fastener Withdrawal; OMG CR-R Assembled Base Sheet Fastener (1.7 in.) ≥ 101 lbf per <a href="#">Note 11.</a></b>	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (SPLATTER at 3.5-4.0 lbs/sq)	-345.0
<b>MULE-HIDE SA-TPO MEMBRANE APPLICATIONS:</b>					
LWC-58	Min. 3,000 psi structural concrete	ELASTIZELL (NOA 23-0817.05): Min. 250 psi, Min. 2-inch thick, Elastizell Range II LWIC	Mule-Hide SA-TPO	Self-adhered	-282.5
Notes:	A. If the type of LWC to be used on the project is unknown, as in a re-roof (tear-off) condition, compressive strength and fastener withdrawal resistance testing shall be conducted. Compressive strength testing shall be in accordance with ASTM C495 (for new pour) or ASTM C109 (for existing) and shall yield a minimum 200 psi result. Field withdrawal resistance testing in accordance with <a href="#">Note 11</a> shall yield an average withdrawal performance not less than 55 lbf with a Trufast FM-90 Base Sheet Fastener. If question exists as to the adhesion to the LWC surface, field testing in accordance with <a href="#">Note 12</a> is recommended. All testing shall be performed by an accredited testing agency acceptable to the Authority Having Jurisdiction.				

**TABLE 5A: CEMENTITIOUS WOOD FIBER DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

REFER TO [NOTE 16A](#) FOR VAPOR BARRIER OPTIONS.

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Application	
<b>MULE-HIDE TPO-C OR MULE-HIDE TPO-C (FR) MEMBRANE APPLICATIONS:</b>								
CWF-1	Min. 2-inch Tectum Plank	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 7/16-inch APA rated OSB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	Aqua Base 120	-52.5
CWF-2	Min. 2-inch Tectum Plank	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 7/16-inch APA rated OSB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb or TPO-c BA	-75.0



**TABLE 5A: CEMENTITIOUS WOOD FIBER DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)  
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

REFER TO [NOTE 16A](#) FOR VAPOR BARRIER OPTIONS.

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Application	
CWF-3	Min. 2-inch Tectum Plank	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board, Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH or Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb, LVOC-BA or TPO-c BA	-82.5
CWF-4	Min. 2-inch Tectum Plank	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD and/or min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation, min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb, LVOC-BA or TPO-c BA	-82.5
CWF-5	Min. 2-inch Tectum Plank	(Optional) Min. 1.0-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA (FULL)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.625-inch DensDeck Prime	Helix Max LRA (FULL)	Mule-Hide TPO-c	AeroWeb or TPO-c BA	-90.0
CWF-6	Min. 2-inch Tectum Plank	Min. 1-inch Poly ISO 1 or Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (FULL)	(Optional) Additional layer(s) base insulation, min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD90 or EcoStorm VSH or min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c	AeroWeb, LVOC-BA or TPO-c BA	-277.5
CWF-7	Min. 2-inch Tectum Plank	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD90 or EcoStorm VSH or min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (FULL)	None	N/A	Mule-Hide TPO-c	AeroWeb, LVOC-BA or TPO-c BA	-277.5
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (PARTIAL BOND):</b>								
CWF-8	Min. 2-inch Tectum Plank	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board, Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0

**TABLE 5A: CEMENTITIOUS WOOD FIBER DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)  
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

REFER TO [NOTE 16A](#) FOR VAPOR BARRIER OPTIONS.

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Application	
CWF-9	Min. 2-inch Tectum Plank	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD and/or min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation, min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0
CWF-10	Min. 2-inch Tectum Plank	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	-82.5
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>								
CWF-11	Min. 2-inch Tectum Plank	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 7/16-inch APA rated OSB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	HydroBond W-B	-52.5
CWF-12	Min. 2-inch Tectum Plank	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 7/16-inch APA rated OSB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA, Helix Max LRA-DT (FULL)	-75.0
CWF-13	Min. 2-inch Tectum Plank	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board, Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH or Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA, Helix Max LRA-DT (FULL) or HydroBond W-B	-82.5
CWF-14	Min. 2-inch Tectum Plank	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD and/or min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation, min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA, Helix Max LRA-DT (FULL) or HydroBond W-B	-82.5
CWF-15	Min. 2-inch Tectum Plank	Min. 1.0-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA (FULL)	(Optional) Min. 0.5-inch HP Recovery Board	Helix Max LRA (FULL)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-90.0
CWF-16	Min. 2-inch Tectum Plank	Min. 1-inch Insulfoam SP	Helix Max LRA (FULL)	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-90.0
CWF-17	Min. 2-inch Tectum Plank	(Optional) Min. 1.0-inch Poly ISO 1	Helix Max LRA (FULL)	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : Min. 0.625-inch DensDeck Prime	Helix Max LRA (FULL)	Mule-Hide TPO-c Fleece Back	Helix Max LRA, Helix Max LRA-DT (FULL)	-90.0

**TABLE 5A: CEMENTITIOUS WOOD FIBER DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)  
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

REFER TO [NOTE 16A](#) FOR VAPOR BARRIER OPTIONS.

System No.	Deck <a href="#">(Note 1)</a>	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>		MDP <a href="#">(psf)</a>
		Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Application	
CWF-18	Min. 2-inch Tectum Plank	Min. 1-inch Poly ISO 1 or Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (FULL)	(Optional) Additional layer(s) base insulation, min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD90 or EcoStorm VSH or min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (FULL)	Mule-Hide TPO-c Fleece Back	Helix Max LRA, Helix Max LRA-DT (FULL) or HydroBond W-B	-277.5
CWF-19	Min. 2-inch Tectum Plank	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD90 or EcoStorm VSH or min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (FULL)	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA, Helix Max LRA-DT (FULL) or HydroBond W-B	-277.5

**TABLE 5B: CEMENTITIOUS WOOD FIBER DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)  
SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck <a href="#">(Note 1)</a>	Anchor Sheet			Base Insulation Layer		Top Insulation Layer(s)		Roof Cover <a href="#">(Note 15)</a>	MDP <a href="#">(psf)</a>
		Type	Fastener <a href="#">(Note 11)</a>	Attach	Type	Attach <a href="#">(Notes 6,7,8)</a>	Type	Attach <a href="#">(Notes 6,7,8)</a>		
<b>MULE-HIDE TPO-C OR MULE-HIDE TPO-C (FR) MEMBRANE APPLICATIONS:</b>										
CWF-20	Min. 2-inch Tectum Plank	Carlisle SureMB G2 Base	Trufast Twin-Loc Nails, min. 1.4-inch embedment	9-inch o.c. in the 4-inch side laps and 18-inch o.c. in two staggered rows in the center of the sheet	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD and/or min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBONS, ~10.5-inch o.c., atop anchor sheet fastener rows)	(Optional) Additional layer(s) base insulation, min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c / AeroWeb, LVOC-BA or TPO-c BA	-30.0
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>										
CWF-21	Min. 2-inch Tectum Plank	Carlisle SureMB G2 Base	Trufast Twin-Loc Nails, min. 1.4-inch embedment	9-inch o.c. in the 4-inch side laps and 18-inch o.c. in two staggered rows in the center of the sheet	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD and/or min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBONS, ~10.5-inch o.c., atop anchor sheet fastener rows)	(Optional) Additional layer(s) base insulation, min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back / Helix Max LRA, Helix Max LRA-DT (FULL) or HydroBond W-B	-30.0

**TABLE 6A: EXISTING GYPSUM DECKS – REROOF (TEAR-OFF)  
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck (Notes 1 & Note 12)	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover (Note 15)		MDP (psf)
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Type	Application	
<b>MULE-HIDE TPO-c OR MULE-HIDE TPO-c (FR) MEMBRANE APPLICATIONS:</b>								
G-1.	Existing gypsum deck	(Optional) Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-157.5
G-2.	Existing gypsum deck	Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	None	N/A	Mule-Hide TPO-c	AeroWeb or TPO-c BA	-187.5
G-3.	Existing gypsum deck	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD and/or min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation, min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-237.5
G-4.	Existing gypsum deck	Nominal 0.5-inch EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	None	N/A	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-352.5
G-5.	Existing gypsum deck	Min. 0.5-inch Poly ISO 1-HD, SecurShield HD Plus	Helix Max LRA or Helix Max LRA-DT (RIBBON)	None	N/A	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-450.0
G-6.	Existing gypsum deck	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	None	N/A	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-495.0
<b>MULE-HIDE TPO-c FLEECE BACK MEMBRANE APPLICATIONS (PARTIAL BOND):</b>								
G-7.	Existing gypsum deck	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD and/or min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation, min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0
G-8.	Existing gypsum deck	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0
G-9.	Existing gypsum deck	(Optional) Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	-90.0

**TABLE 6A: EXISTING GYPSUM DECKS – REROOF (TEAR-OFF)  
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck (Notes 1 & Note 12)	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover (Note 15)		MDP (psf)
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Type	Application	
<b>MULE-HIDE TPO-c FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>								
G-10.	Existing gypsum deck	(Optional) Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL)	-157.5
G-11.	Existing gypsum deck	Min. 2-inch Poly ISO 1-NB	Helix Max LRA or Helix Max LRA-DT (RIBBON)	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL)	-187.5
G-12.	Existing gypsum deck	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD and/or min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation, min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA, Helix Max LRA-DT (FULL) or HydroBond W-B	-237.5
G-13.	Existing gypsum deck	(Optional) Min. 1-inch Insulfoam I, II, VIII, IX, XIV or XV	Helix Max LRA (FULL)	Min. 1-inch Insulfoam SP	Helix Max LRA (FULL)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-295.0
G-14.	Existing gypsum deck	Nominal 0.5-inch EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA, Helix Max LRA-DT (FULL) or HydroBond W-B	-352.5
G-15.	Existing gypsum deck	Min. 0.5-inch Poly ISO 1-HD, SecurShield HD Plus	Helix Max LRA or Helix Max LRA-DT (RIBBON)	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA, Helix Max LRA-DT (FULL) or HydroBond W-B	-450.0
G-16.	Existing gypsum deck	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA, Helix Max LRA-DT (FULL) or HydroBond W-B	-495.0

**TABLE 6B: EXISTING GYPSUM DECKS – REROOF (TEAR-OFF)  
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER**

System No.	Deck (Note 1)	Primer	Roof Cover (Note 15)		MDP (psf)
			Type	Attach	
G-17.	Existing gypsum deck	None	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-295.0
G-18.	Existing gypsum deck	None	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (SPLATTER at 3.5-4.0 lbs/sq)	-717.5

**TABLE 7A: RECOVER APPLICATIONS**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

<sup>A</sup> The reported MDP documents the allowable maximum design pressure of the new insulation, coverboard and roof cover when adhered to the substrate, irrespective of the deck type (See [Note 1](#)) or performance of the substrate (See [Note 12](#)). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate ( <a href="#">Notes 1 &amp; Note 12</a> )	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover ( <a href="#">Note 15</a> )		MDP (psf) <sup>A</sup>
		Type	Attach ( <a href="#">Notes 6,7,8</a> )	Type	Attach ( <a href="#">Notes 6,7,8</a> )	Type	Application	
<b>MULE-HIDE TPO-c OR MULE-HIDE TPO-c (FR) MEMBRANE APPLICATIONS:</b>								
R-1	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> (Optional) Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-167.5
R-2	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> (Optional) Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-167.5
R-3	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen over structural concrete deck	(Optional) Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB or Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-145.0
R-4	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB or Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-145.0



**TABLE 7A: RECOVER APPLICATIONS**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

<sup>A</sup> The reported MDP documents the allowable maximum design pressure of the new insulation, coverboard and roof cover when adhered to the substrate, irrespective of the deck type (See [Note 1](#)) or performance of the substrate (See [Note 12](#)). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (Notes 1 & Note 12)	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover (Note 15)		MDP (psf) <sup>A</sup>
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Type	Application	
R-5	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 2-inch Poly ISO 1-NB or Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	None	N/A	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-145.0
R-6	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	None	N/A	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-302.5
R-7	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	None	N/A	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-302.5
R-8	Existing fully-adhered asphaltic BUR or mineral surface cap sheet	Min. 1.5-inch AC Foam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	OB500	(Optional) Additional layers of base insulation	OB500	Mule-Hide TPO-c	Aqua Base 120 or TPO-c BA	-120.0
R-9	Existing fully-adhered asphaltic BUR or mineral surface cap sheet	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	OB500	(Optional) Additional layers of base insulation	OB500	Mule-Hide TPO-c	AeroWeb	-120.0
R-10	Existing fully-adhered asphaltic BUR or mineral surface cap sheet	(Optional) Min. 1.5-inch AC Foam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	OB500	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck or DensDeck Prime	OB500	Mule-Hide TPO-c	Aqua Base 120 or TPO-c BA	-120.0
R-11	Existing fully-adhered asphaltic BUR or mineral surface cap sheet	(Optional) Min. 1.5-inch AC Foam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	OB500	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	OB500	Mule-Hide TPO-c	AeroWeb	-120.0

**TABLE 7A: RECOVER APPLICATIONS**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

<sup>A</sup> The reported MDP documents the allowable maximum design pressure of the new insulation, coverboard and roof cover when adhered to the substrate, irrespective of the deck type (See [Note 1](#)) or performance of the substrate (See [Note 12](#)). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (Notes 1 & Note 12)	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover (Note 15)		MDP (psf) <sup>A</sup>
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Type	Application	
R-12	Existing fully-adhered asphaltic BUR or mineral surface cap sheet	(Optional) Min. 1.5-inch AC Foam II, Poly ISO 2, Poly ISO 1, Poly ISO 1-DWD, ENRGY 3	OB500	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Mule-Hide TPO-c	Aqua Base 120, AeroWeb, LVOC BA or TPO-c BA	-120.0
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (PARTIAL BOND):</b>								
R-13	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0
R-14	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	(Optional) Additional layer(s) base insulation	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0
R-15	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	(Optional) Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD or Poly ISO 1-HD Plus	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0
R-16	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD or Poly ISO 1-HD Plus	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0

**TABLE 7A: RECOVER APPLICATIONS**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

<sup>A</sup> The reported MDP documents the allowable maximum design pressure of the new insulation, coverboard and roof cover when adhered to the substrate, irrespective of the deck type (See [Note 1](#)) or performance of the substrate (See [Note 12](#)). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (Notes 1 & Note 12)	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover (Note 15)		MDP (psf) <sup>A</sup>
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Type	Application	
R-17	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD or Poly ISO 1-HD Plus	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0
R-18	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	(Optional) Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	-90.0
R-19	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	-90.0
R-20	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	-90.0
R-21	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	(Optional) Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0
R-22	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0

**TABLE 7A: RECOVER APPLICATIONS  
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

<sup>A</sup> The reported MDP documents the allowable maximum design pressure of the new insulation, coverboard and roof cover when adhered to the substrate, irrespective of the deck type (See [Note 1](#)) or performance of the substrate (See [Note 12](#)). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (Notes 1 & Note 12)	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover (Note 15)		MDP (psf) <sup>A</sup>
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Type	Application	
R-23	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 1.5-inch Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 12-inch o.c.)	-45.0
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>								
R-24	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> (Optional) Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-167.5
R-25	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> (Optional) Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-167.5
R-26	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	(Optional) Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 2-inch Poly ISO 1-NB or Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-145.0

**TABLE 7A: RECOVER APPLICATIONS**  
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

<sup>A</sup> The reported MDP documents the allowable maximum design pressure of the new insulation, coverboard and roof cover when adhered to the substrate, irrespective of the deck type (See [Note 1](#)) or performance of the substrate (See [Note 12](#)). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (Notes 1 & Note 12)	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover (Note 15)		MDP (psf) <sup>A</sup>
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Type	Application	
R-27	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 2-inch Poly ISO 1-NB or Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-145.0
R-28	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 2-inch Poly ISO 1-NB or Poly ISO 1-HD-Composite	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-145.0
R-29	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON)	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-302.5
R-30	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch Poly ISO 1-HD, Poly ISO 1-HD Plus or EcoStorm VSH	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	None	N/A	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL) or HydroBond W-B	-302.5
<b>MULE-HIDE TPO-C FLEECE BACK RL APPLICATIONS:</b>								
R-31	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	(Optional) Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 2.0-inch InsulBase RL	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back RL		-142.5
R-32	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 2.0-inch InsulBase RL	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Mule-Hide TPO-c Fleece Back RL		-142.5

**TABLE 7A: RECOVER APPLICATIONS**
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

<sup>A</sup> The reported MDP documents the allowable maximum design pressure of the new insulation, coverboard and roof cover when adhered to the substrate, irrespective of the deck type (See [Note 1](#)) or performance of the substrate (See [Note 12](#)). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (Notes 1 & Note 12)	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover (Note 15)		MDP (psf) <sup>A</sup>
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Type	Application	
R-33	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 2.0-inch InsulBase RL	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	None	N/A	Mule-Hide TPO-c Fleece Back RL		-142.5

**TABLE 7B: RECOVER APPLICATIONS**
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED BASE PLY, BONDED ROOF COVER**

<sup>A</sup> The reported MDP documents the allowable maximum design pressure of the new insulation, coverboard and roof cover when adhered to the substrate, irrespective of the deck type (See [Note 1](#)) or performance of the substrate (See [Note 12](#)). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (Notes 1 & Note 12)	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover (Note 15)		MDP (psf) <sup>A</sup>
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Base	Application	
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>								
R-34	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	(Optional) Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-165.0
R-35	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 1.5-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-165.0
R-36	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 0.5-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>None</u>	N/A	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back / Helix Max LRA or Helix Max LRA-DT (FULL)	-165.0
<b>MULE-HIDE TPO-C FLEECE BACK PLUS MEMBRANE APPLICATIONS:</b>								



**TABLE 7B: RECOVER APPLICATIONS**
**SYSTEM TYPE A-1: BONDED INSULATION, BONDED BASE PLY, BONDED ROOF COVER**

<sup>A</sup> The reported MDP documents the allowable maximum design pressure of the new insulation, coverboard and roof cover when adhered to the substrate, irrespective of the deck type (See [Note 1](#)) or performance of the substrate (See [Note 12](#)). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (Notes 1 & Note 12)	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover (Note 15)		MDP (psf) <sup>A</sup>
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Base	Application	
R-37	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-157.5
R-38	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-157.5
R-39	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>None</u>	N/A	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-157.5
R-40	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-167.5
R-41	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 1-inch Poly ISO 1, Poly ISO 1-DWD	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-167.5
R-42	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON)	None	N/A	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-202.5
R-43	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 0.25-inch DensDeck Prime	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	None	N/A	Carlisle SureMB 90TG or 120TG / torch-applied	Mule-Hide TPO-c Fleece Back Plus / C-CAA or hot asphalt	-202.5

**TABLE 7C: STEEL - RECOVER  
SYSTEM TYPE C-2: INDUCTION WELDED ROOF COVER**

*All areas where the existing metal panels do not lay flush on the underlying purlin shall have a 0.25-inch diameter pilot hole pre-drilled into the panel prior to driving the Purlin Fastener into the purlin*

System No.	Substrate (Notes 1)	Insulation Layer (Note 5)	Attachment		Roof Cover (Note 15B)	MDP (psf)
			Fastener (Note 11)	Spacing		
<b>MULE-HIDE TPO INDUCTION WELD PLATE SYSTEMS:</b>						
R-44	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.060-inch) to max. 3/16-inch thick steel purlins spaced <b>max. 60-inch o.c.</b>	One or more layers, any combination, preliminarily fastened	Mule-Hide PFC Purlin Drill Point Fastener and Mule-Hide TPO Induction Weld Plate	6-inch o.c. along purlins	Mule-Hide TPO-c, Mule-Hide TPO-c Extra or Mule-Hide TPO-c (FR) induction welded with Trufast Induction Welding Tool per manufacturer's instructions.	-90.0
<b>RHINO BOND SYSTEMS:</b>						
R-45	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced <b>max. 60-inch o.c.</b>	One or more layers, any combination, preliminarily fastened	OMG Purlin Fastener or RetroDriller Fastener and RhinoBond Insulation Plate (TPO) are fastened through to purlins	18-inch o.c. in rows 60-inch o.c.	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-30.0
R-46	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced <b>max. 120-inch o.c.</b>	One or more layers, any combination, preliminarily fastened	OMG Purlin Fastener or RetroDriller Fastener and RhinoBond Insulation Plate (TPO) are fastened through to purlins	12-inch o.c. along purlins	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-30.0
R-47	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced <b>max. 120-inch o.c.</b>	One or more layers, any combination, preliminarily fastened	OMG Purlin Fastener or RetroDriller Fastener and RhinoBond Insulation Plate (TPO) are fastened through to purlins	6-inch o.c. along purlins	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-37.5
R-48	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced <b>max. 60-inch o.c.</b>	One or more layers, any combination, preliminarily fastened	OMG Purlin Fastener or RetroDriller Fastener and RhinoBond Insulation Plate (TPO) are fastened through to purlins	12-inch o.c. along purlins	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-37.5
R-49	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced <b>max. 60-inch o.c.</b>	One or more layers, any combination, preliminarily fastened	OMG Purlin Fastener or RetroDriller Fastener and RhinoBond Insulation Plate (TPO) are fastened through to purlins	12-inch o.c. along purlins	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-45.0
R-50	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced <b>max. 120-inch o.c.</b>	One or more layers, any combination, preliminarily fastened	OMG Purlin Fastener or RetroDriller Fastener and RhinoBond Insulation Plate (TPO) are fastened through to purlins	6-inch o.c. along purlins	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-52.5

**TABLE 7C: STEEL - RECOVER**
**SYSTEM TYPE C-2: INDUCTION WELDED ROOF COVER**
*All areas where the existing metal panels do not lay flush on the underlying purlin shall have a 0.25-inch diameter pilot hole pre-drilled into the panel prior to driving the Purlin Fastener into the purlin*

System No.	Substrate (Notes 1)	Insulation Layer (Note 5)	Attachment		Roof Cover (Note 15B)	MDP (psf)
			Fastener (Note 11)	Spacing		
R-51	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced <b>max. 60-inch o.c.</b>	One or more layers, any combination, preliminarily fastened	OMG Purlin Fastener or RetroDriller Fastener and RhinoBond Insulation Plate (TPO) are fastened through to purlins	6-inch o.c. along purlins	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with RhinoBond tool per manufacturer's instructions.	-67.5
<b>ISOWELD INDUCTION WELDING SYSTEM:</b>						
R-52	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi steel purlins spaced <b>max. 60-inch o.c.</b>	One or more layers, any combination, preliminarily fastened	Dekfast DF-#12-PC-SQ3 with SFS isoweld F1-P-6.8-TPO Plate are fastened through to purlins	12-inch o.c. along purlins	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-37.5
R-53	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi steel purlins spaced <b>max. 120-inch o.c.</b>	One or more layers, any combination, preliminarily fastened	Dekfast DF-#12-PC-SQ3 with SFS isoweld F1-P-6.8-TPO Plate are fastened through to purlins	6-inch o.c. along purlins	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-37.5
R-54	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi steel purlins spaced <b>max. 60-inch o.c.</b>	One or more layers, any combination, preliminarily fastened	Dekfast DF-#12-PC-SQ3 with SFS isoweld F1-P-6.8-TPO Plate are fastened through to purlins	12-inch o.c. along purlins	Mule-Hide TPO-c (minimum 60-mil) or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-45.0
R-55	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi steel purlins spaced <b>max. 60-inch o.c.</b>	One or more layers, any combination, preliminarily fastened	Dekfast DF-#12-PC-SQ3 with SFS isoweld F1-P-6.8-TPO Plate are fastened through to purlins	6-inch o.c. along purlins	Mule-Hide TPO-c or Mule-Hide TPO-c Extra induction welded with SFS <i>isoweld</i> ® 3000 stand-up tool.	-90.0

**TABLE 7D: STEEL – RECOVER**
**SYSTEM TYPE D-1: INSULATED, MECHANICALLY ATTACHED ROOF COVER**
*All areas where the existing metal panels do not lay flush on the underlying purlin shall have a 0.25-inch diameter pilot hole pre-drilled into the panel prior to driving the Purlin Fastener into the purlin*

System No.	Deck (Note 1)	Insulation		Roof Cover (Note 15A)			MDP (psf)
		Type	Attach (Note 5)	Membrane	Fastener (Note 11)	Attachment	
R-56	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 138.5-inch o.c.	One or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	OMG Purlin Fastener or RetroDriller Fastener with OMG 2-3/8 XHD Barbed Stress Plate	12-inch o.c. within 5.5-inch wide laps spaced max. 138.5-inch o.c. to engage steel purlin. Laps sealed with 1.5-inch heat weld.	-30.0
R-57	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 115-inch o.c.	One or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	OMG Purlin Fastener or RetroDriller Fastener with OMG 2-3/8 XHD Barbed Stress Plate	12-inch o.c. within 5.5-inch wide laps spaced max. 115-inch o.c. to engage steel purlin. Laps sealed with 1.5-inch heat weld.	-45.0
R-58	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 54.5-inch o.c.	One or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	OMG Purlin Fastener or RetroDriller Fastener with OMG 2-3/8 XHD Barbed Stress Plate	12-inch o.c. within 5.5-inch wide laps spaced max. 54.5-inch o.c. to engage steel purlin. Laps sealed with 1.5-inch heat weld.	-60.0

**TABLE 7D: STEEL – RECOVER**
**SYSTEM TYPE D-1: INSULATED, MECHANICALLY ATTACHED ROOF COVER**
*All areas where the existing metal panels do not lay flush on the underlying purlin shall have a 0.25-inch diameter pilot hole pre-drilled into the panel prior to driving the Purlin Fastener into the purlin*

System No.	Deck (Note 1)	Insulation		Roof Cover (Note 15A)			MDP (psf)
		Type	Attach (Note 5)	Membrane	Fastener (Note 11)	Attachment	
R-59	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 138.5-inch o.c.	One or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	OMG Purlin Fastener or RetroDriller Fastener with OMG 2-3/8 XHD Barbed Stress Plate	6-inch o.c. within 5.5-inch wide laps spaced max. 138.5-inch o.c. to engage steel purlin. Laps sealed with 1.5-inch heat weld.	-60.0
R-60	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 90.5-inch o.c.	One or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	OMG Purlin Fastener or RetroDriller Fastener with OMG 2-3/8 XHD Barbed Stress Plate	6-inch o.c. within 5.5-inch wide laps spaced max. 90.5-inch o.c. to engage steel purlin. Laps sealed with 1.5-inch heat weld.	-67.5
R-61	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 54.5-inch o.c.	One or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	OMG Purlin Fastener or RetroDriller Fastener with OMG 2-3/8 XHD Barbed Stress Plate	9-inch o.c. within 5.5-inch wide laps spaced max. 54.5-inch o.c. to engage steel purlin. Laps sealed with 1.5-inch heat weld.	-75.0
R-62	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 54.5-inch o.c.	One or more layers, any combination	Prelim. attach	Mule-Hide TPO-c or Mule-Hide TPO-c Extra	OMG Purlin Fastener or RetroDriller Fastener with OMG 2-3/8 XHD Barbed Stress Plate	6-inch o.c. within 5.5-inch wide laps spaced max. 54.5-inch o.c. to engage steel purlin. Laps sealed with 1.5-inch heat weld.	-90.0

**TABLE 7E: STEEL – RECOVER**
**SYSTEM TYPE D-1: INSULATED, MECHANICALLY ATTACHED ROOF COVER (RUSS STRIPS)**
*All areas where the existing metal panels do not lay flush on the underlying purlin shall have a 0.25-inch diameter pilot hole pre-drilled into the panel prior to driving the Purlin Fastener into the purlin*

System No.	Deck (Note 1)	Insulation		Roof Cover (Note 15A)			MDP (psf)
		Type	Attach (Note 5)	Membrane	Fastener (Note 11)	Attachment	
R-63	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 138-inch o.c.	One or more layers, any combination	Prelim. attached	Mule-Hide TPO-c, Mule-Hide TPO-c (FR) or Mule-Hide TPO-c Extra	OMG Purlin Fastener or RetroDriller Fastener with OMG 2-3/8 XHD Barbed Stress Plate	Mule-Hide TPO-c TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 138-inch o.c. The plates are centered over each strip and fastened 6-inch o.c. to engage the purlin. Roof cover adhered to each strip by first priming with TPO Primer at the strip location, then rolling into place with a hand roller.	-30.0
R-64	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 114-inch o.c.	One or more layers, any combination	Prelim. attached	Mule-Hide TPO-c, Mule-Hide TPO-c (FR) or Mule-Hide TPO-c Extra	OMG Purlin Fastener or RetroDriller Fastener with OMG 2-3/8 XHD Barbed Stress Plate	Mule-Hide TPO-c TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 114-inch o.c. The plates are centered over each strip and fastened 6-inch o.c. to engage the purlin. Roof cover adhered to each strip by first priming with TPO Primer at the strip location, then rolling into place with a hand roller.	-45.0

**TABLE 7E: STEEL – RECOVER**
**SYSTEM TYPE D-1: INSULATED, MECHANICALLY ATTACHED ROOF COVER (RUSS STRIPS)**
*All areas where the existing metal panels do not lay flush on the underlying purlin shall have a 0.25-inch diameter pilot hole pre-drilled into the panel prior to driving the Purlin Fastener into the purlin*

System No.	Deck (Note 1)	Insulation		Roof Cover (Note 15A)			MDP (psf)
		Type	Attach (Note 5)	Membrane	Fastener (Note 11)	Attachment	
R-65	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 90-inch o.c.	One or more layers, any combination	Prelim. attached	Mule-Hide TPO-c, Mule-Hide TPO-c (FR) or Mule-Hide TPO-c Extra	OMG Purlin Fastener or RetroDriller Fastener with OMG 2-3/8 XHD Barbed Stress Plate	Mule-Hide TPO-c TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 90-inch o.c. The plates are centered over each strip and fastened 6-inch o.c. to engage the purlin. Roof cover adhered to each strip by first priming with TPO Primer at the strip location, then rolling into place with a hand roller.	-52.5
R-66	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 120-inch o.c.	One or more layers, any combination	Prelim. attached	Mule-Hide TPO-c, Mule-Hide TPO-c (FR) or Mule-Hide TPO-c Extra	OMG Purlin Fastener or RetroDriller Fastener with OMG 2-3/8 XHD Barbed Stress Plate	Mule-Hide TPO-c TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 120-inch o.c. The plates are centered over each strip and fastened 6-inch o.c. to engage the purlin. Roof cover adhered to each strip by first priming with HP-250 Primer at the strip location, then rolling into place with a hand roller.	-60.0
R-67	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 60-inch o.c.	One or more layers, any combination	Prelim. attached	Mule-Hide TPO-c, Mule-Hide TPO-c (FR) or Mule-Hide TPO-c Extra	OMG Purlin Fastener or RetroDriller Fastener with OMG 2-3/8 XHD Barbed Stress Plate	Mule-Hide TPO-c TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 60-inch o.c. The plates are centered over each strip and fastened 12-inch o.c. to engage the purlin. Roof cover adhered to each strip by first priming with HP-250 Primer at the strip location, then rolling into place with a hand roller.	-60.0

**TABLE 7F: RECOVER APPLICATIONS**
**SYSTEM TYPE E-1: NON-INSULATED, MECHANICALLY ATTACHED ROOF COVER**

System No.	Deck (Note 1)	Roof Cover (Note 15)						MDP (psf)
		Membrane	Fastener (Note 11)	Fastener Spacing	Lap Width	Lap Spacing	Seam Weld	
R-68	Existing steel deck	Mule-Hide TPO-c Fleece Back Plus or Mule-Hide TPO-c Fleece Back	Mule-Hide EHD Fastener with Mule-Hide 2.4" Seam Plate installed through to engage existing deck	12-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-30.0
R-69	Existing steel deck	Mule-Hide TPO-c Fleece Back Plus 155 or Mule-Hide TPO-c Fleece Back 135	OMG Super XHD with Mule-Hide 2.4" Seam Plate installed through to engage existing deck	12-inch o.c.	5-inch	139-inch o.c.	1.5-inch outside	-30.0
R-70	Existing steel deck, min. Grade 80	Mule-Hide TPO-c Fleece Back Plus or Mule-Hide TPO-c Fleece Back	Mule-Hide EHD Fastener with Mule-Hide 2.4" Seam Plate installed through to engage existing deck	12-inch o.c.	5.5-inch	139-inch o.c.	1.5-inch outside	-30.0
R-71	Existing steel deck	Mule-Hide TPO-c Fleece Back Plus 155 or Mule-Hide TPO-c Fleece Back 135	OMG Super XHD with Mule-Hide 2.4" Seam Plate installed through to engage existing deck	6-inch o.c.	5-inch	139-inch o.c.	1.5-inch outside	-37.5
R-72	Existing steel deck, min. Grade 80	Mule-Hide TPO-c Fleece Back Plus or Mule-Hide TPO-c Fleece Back	Mule-Hide EHD Fastener with Mule-Hide 2.4" Seam Plate installed through to engage existing deck	6-inch o.c.	5.5-inch	139-inch o.c.	1.5-inch outside	-37.5

**TABLE 7F: RECOVER APPLICATIONS**  
**SYSTEM TYPE E-1: NON-INSULATED, MECHANICALLY ATTACHED ROOF COVER**

System No.	Deck ( <a href="#">Note 1</a> )	Roof Cover ( <a href="#">Note 15</a> )						MDP ( <a href="#">psf</a> )
		Membrane	Fastener ( <a href="#">Note 11</a> )	Fastener Spacing	Lap Width	Lap Spacing	Seam Weld	
R-73	Existing steel deck	Mule-Hide TPO-c Fleece Back Plus 155 or Mule-Hide TPO-c Fleece Back 135	OMG Super XHD with Mule-Hide 2.4" Seam Plate installed through to engage existing deck	12-inch o.c.	5-inch	115-inch o.c.	1.5-inch outside	-37.5
R-74	Existing steel deck, min. Grade 80	Mule-Hide TPO-c Fleece Back Plus or Mule-Hide TPO-c Fleece Back	OMG Super XHD with Mule-Hide 2.4" Seam Plate installed through to engage existing deck	12-inch o.c.	5.5-inch	115-inch o.c.	1.5-inch outside	-37.5
R-75	Existing steel deck	Mule-Hide TPO-c Fleece Back Plus or Mule-Hide TPO-c Fleece Back	Mule-Hide EHD Fastener with Mule-Hide 2.4" Seam Plate installed through to engage existing deck	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-52.5
R-76	Existing steel deck	Mule-Hide TPO-c Fleece Back Plus or Mule-Hide TPO-c Fleece Back	OMG Super XHD with Mule-Hide 2.4" Seam Plate installed through to engage existing deck	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-60.0
R-77	Existing steel deck, min. Grade 80	Mule-Hide TPO-c Fleece Back Plus or Mule-Hide TPO-c Fleece Back	Mule-Hide EHD Fastener with Mule-Hide 2.4" Seam Plate installed through to engage existing deck	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-60.0
R-78	Existing steel deck, min. Grade 80	Mule-Hide TPO-c Fleece Back Plus or Mule-Hide TPO-c Fleece Back	Mule-Hide EHD Fastener with Mule-Hide 2.4" Seam Plate installed through to engage existing deck	6-inch o.c.	5.5-inch	91-inch o.c.	1.5-inch outside	-60.0
R-79	Existing steel deck, min. Grade 80	Mule-Hide TPO-c Fleece Back Plus 155 or Mule-Hide TPO-c Fleece Back 135	OMG Super XHD with Mule-Hide 2.4" Seam Plate installed through to engage existing deck	12-inch o.c.	5-inch	91-inch o.c.	1.5-inch outside	-60.0
R-80	Existing structural concrete	Mule-Hide TPO-c Fleece Back Plus or Mule-Hide TPO-c Fleece Back	OMG Heavy Duty Fastener with OMG 2-3/8 XHD Barbed Stress Plate installed through to engage existing deck	12-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-30.0
R-81	Existing structural concrete	Mule-Hide TPO-c Fleece Back Plus or Mule-Hide TPO-c Fleece Back	OMG Heavy Duty or CD-10 Fastener with OMG 2-3/8 XHD Barbed Stress Plate installed through to engage existing deck Plate	6-inch o.c.	5.5-inch	139-inch o.c.	1.5-inch outside	-37.5
R-82	Existing structural concrete	Mule-Hide TPO-c Fleece Back Plus or Mule-Hide TPO-c Fleece Back	OMG Heavy Duty Fastener with OMG 2-3/8 XHD Barbed Stress Plate installed through to engage existing deck	12-inch o.c.	5.5-inch	115-inch o.c.	1.5-inch outside	-37.5
R-83	Existing structural concrete	Mule-Hide TPO-c Fleece Back Plus or Mule-Hide TPO-c Fleece Back	OMG Heavy Duty Fastener with OMG 2-3/8 XHD Barbed Stress Plate installed through to engage existing deck	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-60.0
R-84	Existing structural concrete	Mule-Hide TPO-c Fleece Back Plus or Mule-Hide TPO-c Fleece Back	OMG Heavy Duty or CD-10 Fastener with OMG 2-3/8 XHD Barbed Stress Plate installed through to engage existing deck	6-inch o.c.	5.5-inch	91-inch o.c.	1.5-inch outside	-60.0



**TABLE 7G: RECOVER APPLICATIONS**  
**SYSTEM TYPE F-1: NON-INSULATED, BONDED ROOF COVER**

<sup>A</sup> The reported MDP documents the allowable maximum design pressure of the new roof cover when adhered to the substrate, irrespective of the deck type (See [Note 1](#)) or performance of the substrate (See [Note 12](#)). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (Notes 1 & Note 12)	Roof Cover (Note 15)		MDP (psf) <sup>A</sup>
		Type	Attach	
<b>MULE-HIDE TPO-C APPLICATIONS:</b>				
R-85	Existing fully adhered TPO single ply	Mule-Hide TPO-c	AeroWeb	-585.0
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (PARTIAL BOND):</b>				
R-86	Existing fully adhered, granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (RIBBON, 6-inch o.c.)	-177.0
<b>MULE-HIDE TPO-C FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>				
R-87	Existing fully adhered, granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-177.0
R-88	Existing fully adhered TPO single ply	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-270.0
R-89	Existing fully adhered, granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR) or granule-surfaced modified bitumen	Mule-Hide TPO-c Fleece Back Plus	Hot Asphalt	-367.5
R-90	Existing fully adhered, granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	Mule-Hide TPO-c Fleece Back	Helix Max LRA-DT (FULL)	-635.0

**TABLE 7H: RECOVER APPLICATIONS**  
**SYSTEM TYPE F-2: NEW LIGHTWEIGHT CONCRETE OVER EXISTING ROOF, BONDED ROOF COVER**

<sup>A</sup> The reported MDP documents the allowable maximum design pressure of the new LWC and roof cover when adhered to the substrate, irrespective of the deck type (See [Note 1](#)) or performance of the substrate (See [Note 12](#)). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (Notes 1 & Note 12)		Roof Cover (Note 15)		MDP (psf) <sup>A</sup>
	Existing Roof	Lightweight Concrete	Type	Attach	
<b>MULE-HIDE TPO-C OR MULE-HIDE TPO-C (FR) MEMBRANE APPLICATIONS:</b>					
R-91	Existing gravel surface BUR	CELCORE (FL2037): Min. 300 psi, Min. 2-inch thick, Celcore Cellular Concrete or Celcore MF Cellular Concrete (EPS board optional)	Mule-Hide TPO-c	Aqua Base 120, AeroWeb, LVOC BA or TPO-c BA	-75.0
R-92	Existing mineral surface cap sheet, smooth surface BUR or smooth surface modified cap sheet	CELCORE (FL2037): Min. 300 psi, Min. 2-inch thick, Celcore Cellular Concrete (EPS board optional)	Mule-Hide TPO-c	Aqua Base 120	-82.5
R-93	Existing mineral surface cap sheet, smooth surface BUR or smooth surface modified cap sheet	CELCORE (FL2037): Min. 300 psi, Min. 2-inch thick, Celcore Cellular Concrete (EPS board optional)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-135.0
R-94	Existing mineral surface cap sheet	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 300 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional).	Mule-Hide TPO-c	Aqua Base 120, AeroWeb, LVOC BA or TPO-c BA	-135.0

**TABLE 7H: RECOVER APPLICATIONS**  
**SYSTEM TYPE F-2: NEW LIGHTWEIGHT CONCRETE OVER EXISTING ROOF, BONDED ROOF COVER**

<sup>^</sup> The reported MDP documents the allowable maximum design pressure of the new LWC and roof cover when adhered to the substrate, irrespective of the deck type (See [Note 1](#)) or performance of the substrate (See [Note 12](#)). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate ( <a href="#">Notes 1 &amp; Note 12</a> )		Roof Cover ( <a href="#">Note 15</a> )		MDP (psf) <sup>^</sup>
	Existing Roof	Lightweight Concrete	Type	Attach	
R-95	Existing smooth surface BUR or smooth surface modified cap sheet	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 300 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional).	Mule-Hide TPO-c	Aqua Base 120	-217.5
R-96	Existing smooth surface BUR or smooth surface modified cap sheet	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 300 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional).	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-262.5
R-97	Existing asphalt BUR	CONCRECEL (FL5584 & FL10500): Min. 350 psi, min. 2-inch thick, Concrecel Lightweight Insulating Concrete (EPS board optional)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-375.0
R-98	Existing asphalt BUR or smooth- or granule-surface SBS modified bitumen	ELASTIZELL (NOA 23-0817.05): Min. 250 psi, Min. 2-inch thick, Elastizell Range II LWIC (EPS board optional)	Mule-Hide TPO-c	Aqua Base 120	-67.5
R-99	Existing asphalt BUR or granule-surface SBS modified bitumen	ELASTIZELL (NOA 23-0817.05): Min. 250 psi, Min. 2-inch thick, Elastizell Range II LWIC (EPS board optional)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-302.5
R-100	Existing asphalt BUR or smooth-surface SBS modified bitumen	ELASTIZELL (NOA 23-0817.05): Min. 250 psi, Min. 2-inch thick, Elastizell Range II LWIC (EPS board optional)	Mule-Hide TPO-c	AeroWeb, LVOC BA or TPO-c BA	-342.0
<b>MULE-HIDE TPO-c FLEECE BACK MEMBRANE APPLICATIONS (FULL BOND):</b>					
R-101	Existing gravel surface BUR	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional).	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL)	-75.0
R-102	Existing mineral surface cap sheet	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional).	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL)	-135.0
R-103	Existing smooth surface BUR or smooth surface modified cap sheet	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional).	Mule-Hide TPO-c Fleece Back	Helix Max LRA or Helix Max LRA-DT (FULL)	-232.5
R-104	Existing asphalt BUR or smooth- or granule-surface SBS modified bitumen	ELASTIZELL (NOA 23-0817.05): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (EPS optional board)	Mule-Hide TPO-c Fleece Back	Helix Max LRA (FULL)	-250.0

**TABLE 8A: HILTI PART / SUPPORT THICKNESS LIMITATIONS<sup>1</sup>**

HILTI PART	STEEL SUPPORTING MEMBER THICKNESS (INCH)
X-ENP-19 L15, X-ENP-19 L15MX or X-ENP-19 L15MXR	$t \geq 0.25$
X-EDN19 THQ12 or X-EDN19 THQ12M	$0.25 \leq t \leq 0.375$
X-EDNK22 THQ12 or X-EDNK22 THQ12M	$t = 0.25$
X-HSN 24	$0.125 \leq t \leq 0.375$
S-MD 12-24 x 1-5/8 M HWH5	$0.125 < t \leq 0.25$

**TABLE 8B: HILTI PART / TYPE B STEEL DECK ATTACHMENT-SPAN LIMITATIONS<sup>1</sup>**

HILTI PART	MAX. SPACING (INCH O.C.)	MAX. ALLOWABLE DESIGN PRESSURE (PSF)	MAX. SPAN (INCHES)					
			Min. 22 ga. steel		Min. 20 ga. steel		Min. 18 ga. steel	
			Min. 33 ksi	Min. 80 ksi	Min. 33 ksi	Min. 80 ksi	Min. 33 ksi	Min. 80 ksi
X-ENP-19 L15 X-ENP-19 L15MX X-ENP-19 L15MXR X-EDN19 THQ12 X-EDN19 THQ12M X-EDNK22 THQ12 X-EDNK22 THQ12M X-HSN 24 or S-MD 12-24 x 1-5/8 M HWH5	12	-45.0	72	72	72	72	72	72
	6	-82.5*	72	72	72	72	72	72
	6	-90.0*	68	72	72	72	72	72
	6	-97.5*	63	72	72	72	72	72
	6	-105.0*	59	72	72	72	72	72
	6	-112.5*	55	72	67	72	72	72
	6	-120.0*	51	72	63	72	72	72
	6	-127.5*	48	72	59	72	72	72
	6	-135.0*	45	72	56	72	72	72
	6	-142.5*	43	72	53	72	72	72
	6	-150.0*	41	72	50	72	69	72
	6	-157.5*	39	71	48	72	65	72
	6	-165.0*	37	68	46	72	62	72
	6	-165.0*	35	65	44	72	60	71
	6	-172.5*	34	62	42	72	57	68
	6	-180.0*	33	60	40	72	55	65
	6	-187.5*	31	57	39	71	53	62
6	-195.0*	30	55	37	68	51	60	
6	-202.5*	29	53	36	66	49	58	
6	-210.0*	28	51	36	63	47	56	
6	-217.5*	27	50	33	61	46	54	
6	-225.0*	26	48	32	59	44	52	

\*Limited to fully or partially adhered roof coverings.

<sup>1</sup> Information is provided as guidance for use at the discretion of the Designer or Record and Authority Having Jurisdiction. Neither NEMO|etc. nor Robert Nieminen, P.E. purport to evaluate Hilti fasteners for compliance with the Florida Building Code.