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EVALUATION REPORT

Mule-Hide Products Co., Inc.
1195 Prince Hall Drive, Suite A
Beloit, WI 53511-5481

Evaluation Report M10000.03.08
FL10497
Date of Issuance: 03/28/2008

SCOPE:

This Evaluation Report is issued under Rule 9B-72 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 designed to comply with the 2004 & 2007 FBC.

DESCRIPTION: Mule-Hide SBS and APP Modified Bitumen Roof Systems

LABELING: Each unit shall bear labeling in accordance with the requirements the Accredited Quality Assurance Agency noted herein.

CONTINUED COMPLIANCE: This Evaluation Report is valid until such time as the named product(s) changes, the referenced Quality Assurance documentation changes, or provisions of the Code that relate to the product change. Acceptance of this Evaluation Report by the named client constitutes agreement to notify Robert Nieminen, P.E. if the product changes or the referenced Quality Assurance documentation changes. Trinity|ERD requires a complete review of this Evaluation Report relative to updated Code requirements with each Code Cycle.

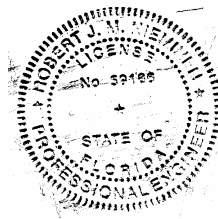
ADVERTISEMENT: The Evaluation Report number preceded by the words "Trinity | ERD Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

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

This Evaluation Report consists of pages 1 through 4, plus a 16-page Appendix.

Prepared by:

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



The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 03/28/2008. This does not serve as an electronically signed document. Signed, sealed hardcopies have been transmitted to the Product Approval Administrator and to the named client.

CERTIFICATION OF INDEPENDENCE:

1. Exterior Research & Design, LLC. d/b/a Trinity | ERD 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. Exterior Research & Design, LLC. d/b/a Trinity | ERD is not owned, operated or controlled by any company manufacturing or distributing products it evaluates.
3. Robert Nieminen, P.E. does not have nor will acquire, a financial interest in any company manufacturing or distributing products for which the evaluation reports are being issued.
4. Robert Nieminen, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.

ROOFING SYSTEMS EVALUATION:

1. SCOPE:

Product Category: Roofing
Sub-Category: Modified Bitumen Roof Systems
Compliance Statement: Mule-Hide SBS and APP Modified Bitumen Roof Systems, as produced by Mule-Hide Products Co., Inc., have demonstrated compliance with the following sections of the Florida Building Code through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

2. STANDARDS:

<u>Section</u>	<u>Property</u>	<u>Standard</u>	<u>Year</u>
1504.3.1	Wind	FM 4470 / 4450	1992
1504.7	Impact	FM 4470	1992
1507.11.2	Physical Properties	ASTM D6163	2000
1507.11.2	Physical Properties	ASTM D6164	2000
1507.11.2	Physical Properties	ASTM D6222	2002

3. REFERENCES:

<u>Entity</u>	<u>Examination</u>	<u>Reference</u>	<u>Date</u>
FM Approvals	FM 4470	2W7A7.AM	08/04/1994
FM Approvals	FM 4470	0D3A3.AM	04/04/1997
FM Approvals	FM 4470	2D0A0.AM	12/23/1998
FM Approvals	FM 4470	2D5A9.AM	06/22/1999
FM Approvals	FM 4470	3006646	01/04/2000
FM Approvals	FM 4470	3001334	01/25/2000
FM Approvals	FM 4470	3001334	02/15/2000
FM Approvals	FM 4470	3000857	01/12/2000
FM Approvals	FM 4470	3004091	01/12/2000
FM Approvals	FM 4470	3006115	05/02/2001
FM Approvals	FM 4470	3012321	07/29/2002
FM Approvals	FM 4470	3014692	08/05/2003
FM Approvals	FM 4470	3014751	08/27/2003
FM Approvals	FM 4470	3007170	01/13/2004
FM Approvals	FM 4470	3019317	06/30/2004
FM Approvals	FM 4470	3020703	07/30/2004
FM Approvals	FM 4470	3018332	01/31/2006
FM Approvals	FM 4470	3023368	03/20/2006
FM Approvals	FM 4470	3024594	05/23/2006
FM Approvals	FM 4470	3023458	07/18/2006
FM Approvals	FM 4470	3030668	09/12/2007
Underwriters Labs	Quality Control	R114571, Vol 1	03/21/2008
Miami-Dade BCCO	Physical Properties	Various NOA of mfr	Various

4. PRODUCT DESCRIPTION:

This Evaluation Report covers Mule-Hide Modified Bitumen Roof Systems installed in accordance with Mule-Hide Products Co., Inc. published installation instructions and the Limitations / Conditions of Use herein. The following Mule-Hide membranes make up the subject systems.

Table 1: Roll-Goods for Mule-Hide Modified Bitumen Roof Systems

Type	Product	Specification		
		Reference	Grade	Type
SBS Membranes	Mule-Hide Nail Base	ASTM D6163	S	I
	Mule-Hide SA-SBS Base Sheet		S	I
	Mule-Hide SA-SBS Base Sheet (FR)		S	I
	Mule-Hide SA-Vented Base Sheet		S	I
	Mule-Hide SA-Vented Base Sheet (FR)		S	I
	Mule-Hide SA-SBS Cap Sheet		G	I
	Mule-Hide SA-SBS Cap Sheet (FR)		G	I
	Mule-Hide SA-SBS KoolCap™		S	I
	Mule-Hide SA-SBS KoolCap™ (FR)		S	I
APP Membranes	Mule-Hide SA-APP Cap Sheet	ASTM D6222	G	I
	Mule-Hide SA-APP Cap Sheet (FR)		G	I
	Mule-Hide SA-APP KoolCap™		S	I
	Mule-Hide SA-APP KoolCap™ (FR)		S	I
	Mule-Hide SA-APP PF KoolCap™		S	I
	Mule-Hide SA-APP PF30 KoolCap™		S	I

5. LIMITATIONS:

- 5.1 This Evaluation Report is not for use in HVHZ.
- 5.2 Refer to a current Roofing Materials Directory for fire ratings of this product.
- 5.3 For steel deck installations, foam plastic insulation shall be separated from the building interior in accordance with FBC 2603.4 unless the exceptions stated in FBC 2603.4.1 and 2603.6 apply.
- 5.4 Unless otherwise noted in Appendix 1, roof decking and its attachment shall be specified and installed to meet project design criteria to the satisfaction of the AHJ.
- 5.5 For recover installations, the existing roof shall be examined in accordance with FBC 1510.
- 5.6 For mechanically attached insulation or membrane or strip-bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed the Zone 1 design pressure determined in accordance with FBC Chapter 16. Zones 2 and 3 shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are RAS 117 and FM LPDS 1-29.
- 5.7 For fully-adhered insulation, 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 For mechanically attached insulation or membrane 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 and analysis shall be in accordance with TAS 105.
- 5.9 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 ASTM E907 or FM LPDS 1-52 shall be conducted on mock-ups of the proposed new roof assembly.
- 5.11 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 AHJ, as documented through field uplift testing in accordance with ASTM E907 or FM LPDS 1-52.

- 5.12 Metal edge attachment (except gutters), shall be designed and installed for wind loads in accordance with FBC Chapter 16 and tested for resistance in accordance with ANSI/SPRI ES-1 or RAS 111, except the basic wind speed shall be determined from FBC Figure 1609.
- 5.13 All products in the roof assembly shall have quality assurance audit in accordance with the FBC and F.A.C. Rule 9B-72.

6. INSTALLATION:

- 6.1 Mule-Hide Modified Bitumen roof systems shall be installed in accordance with Mule-Hide Products Co., Inc. published installation instructions, subject to the Limitations / Conditions of Use noted below.
- 6.2 System attachment requirements for wind load resistance are set forth in Appendix 1.
- 6.3 Any of the following FBC Approved coatings may be applied to the top roof membrane without adverse effect on the system wind load performance. Refer to current Roofing Materials Directory for fire ratings associated with coating usage.
 - Mule-Hide 102 Fibrated Roof Coating;
 - Mule-Hide 111 Non-Fibrated Roof Coating;
 - Mule-Hide 301 Emulsion Fibrated;
 - Mule-Hide 311 Emulsion Non-Fibrated;
 - Mule-Hide 401 Premium Fibrated Aluminum Roof Coating;
 - Mule-Hide 406 Standard Fibrated Aluminum Roof Coating;
 - Mule-Hide 410 Premium Non-Fibrated Aluminum Roof Coating;
 - Mule-Hide 416 Standard Non-Fibrated Aluminum Roof Coating.

7. BUILDING PERMIT REQUIREMENTS:

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

8. MANUFACTURING PLANTS:

Winter Haven, FL

9. QUALITY ASSURANCE ENTITY:

Underwriters Laboratories – QUA1743

- THE 16-PAGES THAT FOLLOW FORM PART OF THIS EVALUATION REPORT -

APPENDIX 1: ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE

Table	Deck	Application	Type	Description	Page
1A-1	Wood	New or Reroof (Tear-Off)	A-2	Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	4
1A-2	Wood	New, Reroof (Tear-Off) or Recover	A-2	Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	5
1C	Wood	New, Reroof (Tear-Off) or Recover	C	Mech. Attached Insulation, Bonded Roof Cover	5
1D	Wood	New, Reroof (Tear-Off) or Recover	D	Prelim. Attached Insulation, Mech. Attached Base Sheet, Bonded Roof Cover	6
1E	Wood	New or Reroof (Tear-Off)	E	Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	6
1F	Wood	New or Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	7
2C	Steel or Conc.	New, Reroof (Tear-Off) or Recover	C	Mech. Attached Insulation, Bonded Roof Cover	8
2D	Steel or Conc.	New, Reroof (Tear-Off) or Recover	D	Prelim. Attached Insulation, Mech. Attached Base Sheet, Bonded Roof Cover	8
3A-1	Concrete	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	9-10
3A-2	Concrete	New or Reroof (Tear-Off)	A-1	Bonded Temporary Roof, Bonded Insulation, Bonded Roof Cover	11
3F	Concrete	New or Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	11
4A	LWIC	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	12
4E	LWIC	New or Reroof (Tear-Off)	E	Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	13
5A-1	CWF	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	14
5A-2	CWF	New, Reroof (Tear-Off) or Recover	A-2	Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	14
6A	Gypsum	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	15
7	Various	Recover	A-1	Bonded Insulation, Bonded Roof Cover	16

The following notes apply to the systems outlined herein:

1. Roof decks shall be in accordance with FBC requirements to the satisfaction of the AHJ.
2. Insulation / base sheet fasteners shall be of sufficient length for the following deck engagement:
 - Wood: Minimum ¾-inch penetration.
 - Steel: Minimum ¾-inch penetration and engage the top flute of the steel deck.
 - Concrete: Minimum 1-inch embedment into pilot hole in accordance with fastener manufacturer's published installation instructions.
3. Unless otherwise noted, insulation adhesive application rates are as follows. Ribbon or bead width is at the time of application; the ribbons/beads shall expand as noted in the manufacturer's published instructions.
 - Hot asphalt at 20-40 lbs/square.
 - Dow Insta-Stik Roofing Adhesive is continuous ¾ to 1-inch wide beads, 12-inch o.c.
 - Millennium One Step Foamable Adhesive in continuous ½ to ¾-inch wide beads, 12-inch o.c.
 - OlyBond 500 Adhesive Fastener in continuous ¾ to 1-inch wide ribbons, 12-inch o.c. using OMG PaceCart or SpotShot dispensing system. Note: OlyBond 500 Green may be used in any system listing OlyBond 500.
 - TITSETE Insulation Adhesive in continuous 2½-3½-inch wide ribbons, 12-inch o.c.
4. Unless otherwise noted, the insulation may be any polyisocyanurate, polystyrene, fiberboard, perlite and/or gypsum-based insulation board that meets the QA requirements of F.A.C. Rule 9B-72 and is documented as meeting FBC 1505.1 and, for foam plastic, FBC 2603.4.1 or 2603.6, when installed with the roof cover.
5. Bonded polyisocyanurate insulation boards shall be maximum 4 x 4 ft.
6. For mechanically attached or strip-bonded components, the maximum design pressure for the selected assembly shall meet or exceed the Zone 1 design pressure determined in accordance with FBC Chapter 16, and Zones 2 and 3 shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria.
7. For fully bonded assemblies, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16, and no rational analysis is permitted.
8. 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 TAS 105.
9. For existing substrates in a bonded recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the AHJ, as documented through field uplift testing in accordance with ASTM E907 or FM LPDS 1-52.
10. Unless otherwise noted, all insulation references are flat stock. Tapered polyisocyanurate may be substituted for flat stock board with the following Maximum Design Pressure (MDP) limitations:
 - Insta-Stik Roofing Adhesive: MDP -120.0 psf
 - OlyBond 500 Adhesive Fastener: MDP -120.0 psf
 - TITSETE Insulation Adhesive: MDP -117.5 psf

11. Unless otherwise noted, refer to the following references for bonded base, ply or cap sheet applications.

Table 1: Mule-Hide Roof Covers			
Reference	Layer	Material	Application
SBS-SA (SBS, Self-Adhering)	Base	Mule-Hide SA-SBS Base Sheet, Mule-Hide SA-SBS Base Sheet (FR)	Self-Adhering
	Cap	Mule-Hide SA-SBS Cap Sheet, Mule-Hide SA-SBS Cap Sheet (FR), Mule-Hide SA-SBS KoolCap™, Mule-Hide SA-SBS KoolCap™ (FR)	
APP-SA (APP, Self-Adhering)	Cap	Mule-Hide SA-APP Cap Sheet, Mule-Hide SA-APP Cap Sheet (FR), Mule-Hide SA-APP KoolCap™, Mule-Hide SA-APP KoolCap™ (FR), Mule-Hide SA-APP PF30 KoolCap™, Mule-Hide SA-APP PF KoolCap™	Self-Adhering

12. Any of the following FBC Approved coatings may be applied to the top roof membrane without adverse effect on the system wind load performance. Refer to current Roofing Materials Directory for fire ratings associated with coating usage.

- Mule-Hide 102 Fibrated Roof Coating;
- Mule-Hide 111 Non-Fibrated Roof Coating;
- Mule-Hide 301 Emulsion Fibrated;
- Mule-Hide 311 Emulsion Non-Fibrated;
- Mule-Hide 401 Premium Fibrated Aluminum Roof Coating;
- Mule-Hide 406 Standard Fibrated Aluminum Roof Coating;
- Mule-Hide 410 Premium Non-Fibrated Aluminum Roof Coating;
- Mule-Hide 416 Standard Non-Fibrated Aluminum Roof Coating.

TABLE 1A-1: WOOD DECKS – NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE A-2: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Anchor Sheet			Base Insulation		Top Insulation		Roof Cover			Max. Design Pressure (psf)
		Type	Fasteners	Attach	Type	Attach	Type	Attach	Base	Ply	Cap	
W-1	Min. 19/32" plywood at max. 24" spans attached 6" o.c. with 8d common nails	Mule-Hide Nail Base, CertainTeed Glasbase, Firestone MB Base, JM Perma-Ply 28, Tamko Glass Base or GAFGLAS #75	32 ga., 1-5/8" diameter tin caps with 11 ga. annular ring shank nails	8" o.c. in 4" lap and 8" o.c. in three, equally spaced, staggered center rows	(Optional) FBC Approved, ASTM C1289, type II polyisocyanurate	Hot asphalt	Min. ¼" DensDeck, DensDeck Prime, Securock	Hot asphalt	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-52.5
W-2	Min. 19/32" plywood at max. 24" spans attached 4" o.c. with 8d common nails or 6" o.c. with #8 screws	CertainTeed Glasbase, Firestone MB Base, JM Perma-Ply 28, Tamko Glass Base or GAFGLAS #75	32 ga., 1-5/8" diameter tin caps with 11 ga. annular ring shank nails	8" o.c. in 4" lap and 8" o.c. in three, equally spaced, staggered center rows	(Optional) FBC Approved, ASTM C1289, type II polyisocyanurate	Hot asphalt	Min. ¼" DensDeck, DensDeck Prime, Securock	Hot asphalt	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-60.0
W-3	Min. 19/32" plywood at max. 24" spans attached 4" o.c. with 8d common nails or 6" o.c. with #8 screws	Mule-Hide Nail Base	32 ga., 1-5/8" diameter tin caps with 12 ga. annular ring shank nails	6" o.c. in 4" lap and 6" o.c. in four, equally spaced, staggered center rows	Min. 2" ACfoam II, III, H-Shield, H-Shield CG, Multi-Max FA3 or ENRGY-3	Insta-Stick, OlyBond 500, TITASET or WT One Step Foamable, atop fastener rows, 7" oc	(Optional) Additional layers of base insulation	Insta-Stick, OlyBond 500, TITASET or WT One Step Foamable, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-60.0

TABLE 1A-2: WOOD DECKS – NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER
SYSTEM TYPE A-2: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Anchor Sheet			Base Insulation		Top Insulation		Roof Cover			Max. Design Pressure (psf)
		Type	Fasteners	Attach	Type	Attach	Type	Attach	Base	Ply	Cap	
W-4	Min. 19/32" plywood at max. 24" spans attached 6" o.c. with 8d common nails	Mule-Hide Nail Base, CertainTeed Glasbase, Firestone MB Base, JM Perma-Ply 28, Tamko Glass Base or GAFLAS #75	OMG Flat Bottom Plates (square) with Roofgrip #14, Dekfast Hex with Dekfast #14 or TruFast MP-3 with TruFast HD	12" o.c. in 4" lap and 12" o.c. in two, equally spaced, staggered center rows	(Optional) FBC Approved, ASTM C1289, type II polyisocyanurate	Hot asphalt	Min. ¼" DensDeck, DensDeck Prime, Securock	Hot asphalt	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-52.5
W-5	Min. 19/32" plywood at max. 24" spans attached 4" o.c. with 8d common nails or 6" o.c. with #8 screws	Mule-Hide Nail Base	OMG Flat Bottom Plates (square) with Roofgrip #12	12" o.c. in 4" lap and 12" o.c. in two, equally spaced, staggered center rows	(Optional) FBC Approved, ASTM C1289, type II polyisocyanurate	Hot asphalt	Min. ¼" DensDeck, DensDeck Prime, Securock	Hot asphalt	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-60.0

TABLE 1C: WOOD DECKS – NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER
SYSTEM TYPE C: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover			Max. Design Pressure (psf)
			Type	Fasteners	Attach	Base	Ply	Cap	
W-6	Min. 19/32" plywood at max. 24" spans attached 6" o.c. with #8 screws	One or more layers, any combination, loose laid	Min. 1.5" ENRGY 3	Dekfast Galvalume Steel Hex with Dekfast #12 DP or TruFast MP-3 with TruFast DP	1 per 1.33 ft ²	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-82.5

TABLE 1D: WOOD DECKS – NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER									
SYSTEM TYPE D: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER									
System No.	Roof Deck	Insulation Layer(s)		Base Sheet			Roof Cover		Max. Design Pressure (psf)
		Type	Attach	Base	Fasteners	Attach	Ply	Cap	
W-7	Min. 19/32" plywood at max. 24" spans attached 6" o.c. with 8d common nails	One or more layers, any combination	Prelim. Attached	Mule-Hide Nail Base	OMG Flat Bottom Plates (square) with Roofgrip #14, Dekfast Hex with Dekfast #14 or TruFast MP-3 with TruFast HD	12" o.c. in 4" lap and 12" o.c. in two, equally spaced, staggered center rows	One or more SBS-SA	SBS-SA or APP-SA	-52.5
W-8	Min. 19/32" plywood at max. 24" spans attached 4" o.c. with 8d common nails or 6" o.c. with #8 screws	One or more layers, any combination	Prelim. Attached	Mule-Hide Nail Base	OMG Flat Bottom Plates (square) with Roofgrip #12	12" o.c. in 4" lap and 12" o.c. in two, equally spaced, staggered center rows	One or more SBS-SA	SBS-SA or APP-SA	-60.0

TABLE 1E: WOOD DECKS – NEW CONSTRUCTION or REROOF (Tear-Off)									
SYSTEM TYPE E: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER									
System No.	Roof Deck	Base Sheet				Roof Cover		Max. Design Pressure (psf)	
		Base	Fasteners	Attach	Ply	Cap			
W-9	Min. 19/32" plywood at max. 24" spans attached 6" o.c. with 8d common nails	Mule-Hide Nail Base	32 ga., 1-5/8" diameter tin caps with 11 ga. annular ring shank nails	8" o.c. in 4" lap and 8" o.c. in three, equally spaced, staggered center rows	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-52.5		
W-10	Min. 19/32" plywood at max. 24" spans attached 6" o.c. with 8d common nails	Mule-Hide Nail Base	OMG Flat Bottom Plates (square) with Roofgrip #14, Dekfast Hex with Dekfast #14 or TruFast MP-3 with TruFast HD	12" o.c. in 4" lap and 12" o.c. in two, equally spaced, staggered center rows	One or more SBS-SA	SBS-SA or APP-SA	-52.5		
W-11	Min. 19/32" plywood at max. 24" spans attached 4" o.c. with 8d common nails or 6" o.c. with #8 screws	Mule-Hide Nail Base	32 ga., 1-5/8" diameter tin caps with 11 ga. annular ring shank nails	8" o.c. in 4" lap and 8" o.c. in three, equally spaced, staggered center rows	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-60.0		
W-12	Min. 19/32" plywood at max. 24" spans attached 4" o.c. with 8d common nails or 6" o.c. with #8 screws	Mule-Hide Nail Base	OMG Flat Bottom Plates (square) with Roofgrip #12	12" o.c. in 4" lap and 12" o.c. in two, equally spaced, staggered center rows	One or more SBS-SA	SBS-SA or APP-SA	-60.0		
W-13	Min. 19/32" plywood at max. 24" spans attached 6" o.c. with #8 screws	Mule-Hide Nail Base	32 ga., 1-5/8" diameter tin caps with 11 ga. annular ring shank nails	6" o.c. in 4" lap and 6" o.c. in four, equally spaced, staggered center rows	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-112.5		

TABLE 1F: WOOD DECKS – NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

System No.	Deck	Primer	Roof Cover			Max. Design Pressure (psf)
			Base	Ply	Cap	
W-14	Min. 19/32" plywood at max. 24" spans attached 6" o.c. with 8d ring shank nails	(Optional) Mule-Hide 121 Asphalt Primer	SBS-SA	(Optional) SBS-SA	SBS-SA or APP-SA	-90.0

TABLE 2C: STEEL OR CONCRETE DECKS – NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER

SYSTEM TYPE C: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover			Max. Design Pressure (psf)
			Type	Fasteners	Attach	Base	Ply	Cap	
S-1	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, any combination, loose laid	Min. 1.5" ENRGY 3	Dekfast Galvalume Steel Hex with Dekfast #12 (steel only) or #14 or TruFast MP-3 with TruFast DP (steel only) or HD	1 per 1.33 ft ²	SBS-SA	(Optional) One or more SBS-SA or	SBS-SA or APP-SA	-82.5

TABLE 2D: STEEL OR CONCRETE DECKS – NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER

SYSTEM TYPE D: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER

System No.	Roof Deck	Insulation Layer(s)		Base Sheet			Roof Cover		Max. Design Pressure (psf)
		Type	Attach	Base	Fasteners	Attach	Ply	Cap	
S-2	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, any combination	Prelim. Attached	Mule-Hide Nail Base	OMG Flat Bottom Plates (square) with Roofgrip #14, Dekfast Hex with Dekfast #14 or TruFast MP-3 with TruFast HD	12" o.c. in 4" lap and 12" o.c. in two, equally spaced, staggered center rows	One or more SBS-SA	SBS-SA or APP-SA	-52.5

TABLE 3A-1: CONCRETE DECKS – NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck	Primer	Base Insulation Layer		Top Insulation Layer		Roof Cover			Max. Design Pressure (psf)
			Type	Attach	Type	Attach	Base	Ply	Cap	
C-1	Concrete	(Optional) PG100 Asphalt Primer	Min. 1.5" Multi-Max FA3	Insta-Stik, 12" o.c.	(Optional) additional layers(s) of base insulation	Insta-Stik, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-67.5
C-2	Concrete	None	Min. 1.5" Multi-Max FA3	Insta-Stick, 12" o.c.	Min. ¼" Securock	Insta-Stick, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-67.5
C-3	Concrete	None	Min. 1.5", min. 2.0 pcf ASTM C578 Expanded Polystyrene	Insta-Stick, 12" o.c.	Min. ¼" DensDeck, DensDeck Prime	Insta-Stick, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-120.0
C-4	Concrete	None	Min. 1.5", min. 2.0 pcf EPS insulation board	OlyBond 500, 12" o.c.	(Optional) additional layers of base insulation	OlyBond 500, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-120.0
C-5	Concrete	None	Min. 1.5" ENRGY 3	OlyBond 500, 12" o.c.	(Optional) additional layers(s) of base insulation	OlyBond 500, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-127.5
C-6	Concrete	None	Min. 1.5" ENRGY 3	OlyBond 500, 12" o.c.	Min. ¼" DensDeck, DensDeck Prime	OlyBond 500, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-127.5
C-7	Concrete	(Optional) PG100 Asphalt Primer	Min. 1.5" ACFoam II or ENRGY 3	Insta-Stik, 12" o.c.	(Optional) additional layers(s) of base insulation	Insta-Stik, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-135.0
C-8	Concrete	None	Min. 1.5", min. 2.0 pcf EPS insulation board	Insta-Stik, 12" o.c.	(Optional) additional layers of base insulation	Insta-Stik, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-135.0
C-9	Concrete	None	Min. 1.5" ACFoam II, or H-Shield	OlyBond 500, 12" o.c.	(Optional) additional layers(s) of base insulation	OlyBond 500, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-150.0
C-10	Concrete	None	Min. 1.5" ACFoam II, H-Shield or ISO 95+GL	OlyBond 500, 12" o.c.	Min. ¼" DensDeck, DensDeck Prime	OlyBond 500	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-150.0
C-11	Concrete	None	Min. 1.5" ACFoam II, ENRGY 3, H-Shield or Multi-Max FA3	WT One-Step Foamable, 12" o.c.	(Optional) additional layers(s) of base insulation	WT One-Step Foamable, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-232.5
C-12	Concrete	None	Min. 1.5" ACFoam II, ENRGY 3, H-Shield or Multi-Max FA3	WT One-Step Foamable, 12" o.c.	Min. ¼" Securock	WT One-Step Foamable, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-232.5
C-13	Concrete	(Optional) PG100 Asphalt Primer / Elastoflex SA V G	Min. 1.5", min. 2.0 pcf EPS insulation board	TITSESET, 12" o.c.	(Optional) additional layers of base insulation	TITSESET, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-240.0

**TABLE 3A-1: CONCRETE DECKS – NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck	Primer	Base Insulation Layer		Top Insulation Layer		Roof Cover			Max. Design Pressure (psf)
			Type	Attach	Type	Attach	Base	Ply	Cap	
C-14	Concrete	None	Min. 1.5", min. 2.0 pcf ASTM C578 Expanded Polystyrene	TITSESET, 12" o.c.	Min. ¼" DensDeck, DensDeck Prime	TITSESET, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-240.0
C-15	Concrete	None	Min. 1.5" ACFoam II, ACFoam III, ENRGY 3, H-Shield, H-Shield CG or Multi-Max FA3	TITSESET, 12" o.c.	(Optional) additional layers(s) of base insulation	TITSESET, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-270.0
C-16	Concrete	None	Min. 2" ACFoam II	Insta-Stick, Olybond 500, WT One Step Foamable or TITSESET, 12" o.c.	Min. ¼" Securock	Insta-Stick, Olybond 500, WT One Step Foamable or TITSESET, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-350.0
C-17	Concrete	PG100 Asphalt Primer	Min. 1.5" ACFoam II, ACFoam III, ENRGY 3, H-Shield, H-Shield CG or Multi-Max FA3	Hot asphalt	(Optional) additional layers(s) of base insulation	Hot asphalt	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-480.0
C-18	Concrete	None	Min. 2" ACFoam II	OlyBond, full coverage at 1 gal/square	Min. ¼" Securock	OlyBond, full coverage at 1 gal/square	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-545.0

TABLE 3A-2: CONCRETE DECKS – NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE A-1: BONDED TEMP ROOF, BONDED INSULATION, BONDED ROOF COVER

System No.	Deck	Primer	Temp Roof	Base Insulation Layer		Top Insulation Layer		Roof Cover			Max. Design Pressure (psf)
				Type	Attach	Type	Attach	Base	Ply	Cap	
C-19	Conc	Mule-Hide 121	Mule-Hide SA-SBS Cap Sheet	Min. 1.5", min. 2.0 pcf ASTM C578 Expanded Polystyrene	TITESET, 12" o.c.	Min. ¼" DensDeck, DensDeck Prime	TITESET, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-240.0
C-20	Conc	Mule-Hide 121	Mule-Hide SA-SBS Cap Sheet	Min. 1.5" ACFoam II, ACFoam III, ENRGY 3, H-Shield, H-Shield CG, Multi-Max FA3 or ISO 95+GL	TITESET, 12" o.c.	(Optional) Additional layers of base insulation	TITESET, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA, APP-SA	-250.0
C-21	Conc	Mule-Hide 121	Mule-Hide SA-SBS Cap Sheet	Min. 1.5" ACFoam II, ACFoam III, ENRGY 3, H-Shield, H-Shield CG, Multi-Max FA3 or ISO 95+GL	TITESET, 12" o.c.	Min. ½" Temple HD6 or Structodek HD Wood Fiberboard or min. ¼" DensDeck, DensDeck Prime or Securock	TITESET, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA, APP-SA	-270.0

TABLE 3F: CONCRETE DECKS – NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

System No.	Deck	Primer	Roof Cover			Max. Design Pressure (psf)
			Base	Ply	Cap	
C-22	Concrete	Mule-Hide 121 Asphalt Primer	SBS-SA	(Optional) SBS-SA	SBS-SA, APP-SA	-315.0

TABLE 4A: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Roof Deck (See Note 1, Page 1)		Base Insulation Layer		Coverboard		Roof Cover			Max. Design Pressure (psf)
	Struct. Deck	LWC	Type	Attach	Type	Attach	Base	Ply	Cap	
LWC-1	Concrete	Min. 200 psi, min 2-inch Elastizell	Min. 1.5", min. 2.0 pcf ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	(Optional) Additional layers of base insulation	OlyBond 500, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-120.0
LWC-2	Concrete	Min. 200 psi, min 2-inch Elastizell	Min. 1.5" ACFoam II, ENRGY 3 or H-Shield	OlyBond 500, 12" o.c.	(Optional) Additional layers of base insulation	OlyBond 500, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-225.0
LWC-3	Concrete	Min. 200 psi, min. 2-inch Elastizell	Min. 1.5-inch ACFoam II, ACFoam III, ENRGY 3, H-Shield, H-Shield CG, Multi-Max FA3 or min. 2.0 pcf ASTM C578 expanded polystyrene	TITESET, 12" o.c.	(Optional) Additional layers of base insulation	TITESET, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-180.0
LWC-4	Concrete	Min. 200 psi, min. 2-inch Celcore	Min. 1.5-inch ACFoam II, ACFoam III, ENRGY 3, H-Shield, H-Shield CG, Multi-Max FA3 or min. 2.0 pcf ASTM C578 expanded polystyrene	TITESET, 12" o.c.	(Optional) Additional layers of base insulation	TITESET, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-222.5
LWC-5	Concrete	Min. 200 psi, min. 2-inch Mearlcrete	Min. 1.5-inch ACFoam II, ACFoam III, ENRGY 3, H-Shield, H-Shield CG, Multi-Max FA3 or min. 2.0 pcf ASTM C578 expanded polystyrene	TITESET, 12" o.c.	(Optional) Additional layers of base insulation	TITESET, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-240.0

TABLE 4E: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE E: MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER

System No.	Roof Deck (See Note 1, Page 1)		Base Sheet (See Note A below)			Roof Cover		Max. Design Pressure
	Structural Deck	Lightweight Concrete	Type	Fasteners	Attach	Ply	Cap	
LWC-6	Min. 26 ga., type HF steel at max 5 ft spans or min. 22 ga., type B steel at max 6 ft spans or structural concrete	Min. 200 psi, min. 2-inch thick Celcore or min. 225 psi, min. 2-inch thick Celcore MF	Mule-Hide Nail Base	Simplex Turbo Tube-Lok	9 in. o.c. in a 4 in. lap and 12 in. o.c. in two, equally spaced, staggered rows in the field of the sheet	One or more SBS-SA	SBS-SA, or APP-SA	-45.0
LWC-7	Min. 22 ga., type B steel at max 5 ft spans or structural concrete	Min. 225 psi, min. 2-inch thick Celcore MF	Mule-Hide Nail Base	ES Twin Loc-Nail	9 in. o.c. in a 4 in. lap and 18 in. o.c. in two, equally spaced, staggered rows in the field of the sheet	One or more SBS-SA	SBS-SA, or APP-SA	-45.0
LWC-8	Min. 22 ga., type B steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch thick Celcore MF	Mule-Hide Nail Base	ES FM-90	8" o.c. in a 4" lap and 8" o.c. in three equally spaced, staggered center rows	SBS-SA	SBS-SA	-60.0
LWC-9	Min. 0.0179" Tensiform S-75 or min. 0.0205" Tensiform 75 at max. 5 ft spans or structural concrete	Min. 200 psi, min. 2-inch thick Elastizell Range II	Mule-Hide Nail Base	ES FM-90 or OMG CR BPF	7.5 in. o.c. in a 3 in. lap and 7.5 in. o.c. in two, equally spaced, staggered rows in the field of the sheet	One or more SBS-SA	SBS-SA, or APP-SA	-30.0
LWC-10	Min. 22 ga., type B steel at max 5 ft spans or structural concrete	Min. 200 psi, min. 2-inch thick Elastizell Range II	Mule-Hide Nail Base	ES FM-90 or OMG CR BPF	7 in. o.c. in a 3 in. lap and 7 in. o.c. in two, equally spaced, staggered rows in the field of the sheet	One or more SBS-SA	SBS-SA, or APP-SA	-45.0
LWC-11	Min. 22 ga., type B steel at max 5 ft spans or structural concrete	Min. 200 psi, min. 2-inch thick Elastizell Range II	Mule-Hide Nail Base	Simplex Turbo Tube-Lok	9 in. o.c. in a 4 in. lap and 12 in. o.c. in two, equally spaced, staggered rows in the field of the sheet	One or more SBS-SA	SBS-SA, or APP-SA	-45.0
LWC-12	Min. 22 ga., type B steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch thick Mearlcrete	Mule-Hide Nail Base	ES FM-90 or OMG CR BPF	7 in. o.c. in a 4 in. lap and 7 in. o.c. in two, equally spaced, staggered rows in the field of the sheet	One or more SBS-SA	SBS-SA, or APP-SA	-45.0
LWC-13	Min. 22 ga., type B steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch thick Mearlcrete	Mule-Hide Nail Base	Simplex Base-Lok	9 in. o.c. in a 4 in. lap and 9 in. o.c. in two, equally spaced, staggered rows in the field of the sheet	One or more SBS-SA	SBS-SA, or APP-SA	-45.0
LWC-14	Min. 22 ga., type B steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch thick Mearlcrete	Mule-Hide Nail Base	ES FM-90 or OMG CR BPF	7 in. o.c. in a 4 in. lap and 7 in. o.c. in two, equally spaced, staggered rows in the field of the sheet	One or more SBS-SA	SBS-SA, or APP-SA	-52.5
LWC-15	Min. 22 ga., type B steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch thick Mearlcrete	Mule-Hide Nail Base	Simplex Base-Lok	9 in. o.c. in a 4 in. lap and 12 in. o.c. in two, equally spaced, staggered rows in the field of the sheet	One or more SBS-SA	SBS-SA, or APP-SA	-52.5
LWC-16	Min. 22 ga., type B steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch thick Mearlcrete	Mule-Hide Nail Base	Simplex Turbo Tube-Lok	9 in. o.c. in a 4 in. lap and 12 in. o.c. in two, equally spaced, staggered rows in the field of the sheet	One or more SBS-SA	SBS-SA, or APP-SA	-45.0

TABLE 5A-1: CEMENTITIOUS WOOD FIBER DECKS – NEW CONSTRUCTION or REROOF (Tear-Off)

SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck	Base Insulation Layer		Top Insulation Layer		Roof Cover			Max. Design Pressure (psf)
		Type	Attach	Type	Attach	Base	Ply	Cap	
CWF-1	Min. 2.5-inch Tectum Plank or Tectum LS Plank	Min. 1.5" ACFoam II, ISO 95+GL, H-Shield, ENRGY-3	Insta-Stick or OlyBond 500, 12" o.c.	Min. ¼" DensDeck, DensDeck Prime, Securock	Insta-Stick or OlyBond 500, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-45.0
CWF-2	Min. 2.5-inch Tectum Plank or Tectum LS Plank	Min. 1.5" ACFoam II, ISO 95+GL, H-Shield, ENRGY-3	TITASET, 12" o.c.	Min. ¼" DensDeck, DensDeck Prime, Securock	TITASET, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-52.5

TABLE 5A-2: CEMENTITIOUS WOOD FIBER DECKS – NEW CONSTRUCTION or REROOF (Tear-Off)

SYSTEM TYPE A-2: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Anchor Sheet			Base Insulation		Top Insulation		Roof Cover			Max. Design Pressure (psf)
		Type	Fasteners	Attach	Type	Attach	Type	Attach	Base	Ply	Cap	
CWF-3	Min. 2.5-inch Tectum Plank or Tectum LS Plank	Mule-Hide Nail Base	ES Inuldek Loc-Nail	9" o.c. in 4" lap and 12" o.c. in two, equally spaced, staggered center rows	Min. 1.5" ACFoam II, ACFoam III, ISO95+GL, H-Shield, ENRGY 3 or Multi-Max FA3,	Hot asphalt	Min. ¼" DensDeck, DensDeck Prime, Securock	Hot asphalt	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-30.0
CWF-4	Min. 2.5-inch Tectum Plank or Tectum LS Plank	Mule-Hide Nail Base	Simplex Base-Lok or ES Twin Loc-Nail	9" o.c. in 4" lap and 18" o.c. in two, equally spaced, staggered center rows	Min. 1.5" ACFoam II, ACFoam III, ISO95+GL, H-Shield, ENRGY 3 or Multi-Max FA3,	Hot asphalt	Min. ¼" DensDeck, DensDeck Prime, Securock	Hot asphalt	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-45.0

TABLE 6A: GYPSUM DECKS – REROOF (Tear-Off)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck	Base Insulation Layer		Top Insulation Layer		Roof Cover			Max. Design Pressure (psf)
		Type	Attach	Type	Attach	Base	Ply	Cap	
G-1	Existing, sound poured gypsum or gypsum plank deck	Min. 1.5-inch ACFoam II, ENRGY 3 or H-Shield or min. 2.0 pcf, ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	(Optional) additional layers(s) of base insulation and/or Securock	OlyBond 500, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-112.5 psf
G-2	Existing, sound poured gypsum or gypsum plank deck	Min. 1.5-inch ACFoam II, ENRGY 3, H-Shield or Multi-Max FA3	WT One-Step Foamable, 12" o.c.	(Optional) additional layers(s) of base insulation and/or Securock	WT One-Step Foamable, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-202.5 psf
G-3	Existing, sound poured gypsum or gypsum plank deck	Min. 1.5-inch, min. 2.0 pcf EPS insulation board	TITESET, 12" o.c.	(Optional) additional layers of base insulation and/or Securock	TITESET, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-240.0 psf
G-4	Existing, sound poured gypsum or gypsum plank deck	Min. 1.5-inch ACFoam II, ACFoam III, ENRGY 3, H-Shield, H-Shield CG or Multi-Max FA3	TITESET, 12" o.c.	(Optional) additional layers(s) of base insulation and/or Securock	TITESET, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-257.5 psf

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

System No.	Substrate	Base Insulation Layer		Top Insulation Layer		Roof Cover			Max. Design Pressure (psf)
		Type	Attach	Type	Attach	Base	Ply	Cap	
R-1	Existing asphaltic roof	Min. 1.5-inch Multi-Max FA3	Insta-Stik, 12" o.c.	(Optional) additional layers(s) of base insulation	Insta-Stik, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-67.5 psf
R-2	Existing asphaltic roof	Min. 1.5-inch ACFoam II or ENRGY 3 or min. 2.0 pcf EPS insulation board	Insta-Stik, 12" o.c.	(Optional) additional layers(s) of base insulation	Insta-Stik, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-90.0 psf
R-3	Existing asphaltic roof	Min. 1.5-inch, min. 2.0 pcf EPS insulation board	OlyBond 500, 12" o.c.	(Optional) additional layers of base insulation	OlyBond 500, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-120 psf
R-4	Existing asphaltic roof	Min. 1.5-inch ACFoam II, ENRGY 3 or H-Shield	OlyBond 500, 12" o.c.	(Optional) additional layers(s) of base insulation	OlyBond 500, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-127.5 psf
R-5	Existing asphaltic roof	Min. 1.5-inch ACFoam II, ENRGY 3, H-Shield or Multi-Max FA3	WT One-Step Foamable, 12" o.c.	(Optional) additional layers(s) of base insulation	WT One-Step Foamable, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-157.5 psf
R-6	Existing asphaltic roof	Min. 1.5-inch ACFoam II, ACFoam III, ENRGY 3, H-Shield, H-Shield CG or Multi-Max FA3 or min. 2.0 pcf ASTM C578 expanded polystyrene	TITSESET, 12" o.c.	(Optional) additional layers(s) of base insulation	TITSESET, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-232.5 psf
R-7	Existing asphaltic roof	Min. 1.5-inch Multi-Max FA3	Insta-Stik, 12" o.c.	Min. ¼" DensDeck, DensDeck Prime or Securock	Insta-Stik, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-67.5
R-8	Existing asphaltic roof	Min. 1.5-inch ACFoam II or ENRGY 3 or min. 2.0 pcf EPS insulation board	Insta-Stik, 12" o.c.	Min. ¼" DensDeck, DensDeck Prime or Securock	Insta-Stik, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-90.0
R-9	Existing asphaltic roof	Min. 1.5" ACFoam II, ENRGY 3, H-Shield or ISO 95+GL	Olybond 500, 12" o.c.	Min. ¼" DensDeck, DensDeck Prime or Securock	Olybond 500, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-127.5
R-10	Existing asphaltic roof	Min. 1.5" ACFoam II, ENRGY 3, H-Shield or Multi-Max FA3	WT One-Step Foamable, 12" o.c.	Min. ¼" Securock	WT One-Step Foamable, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-157.5
R-11	Existing asphaltic roof	Min. 1.5-inch ACFoam II, ACFoam III, ENRGY 3, H-Shield, H-Shield CG or Multi-Max FA3 or min. 2.0 pcf ASTM C578 expanded polystyrene	TITSESET, 12" o.c.	Min. ¼" DensDeck, DensDeck Prime or Securock	TITSESET, 12" o.c.	SBS-SA	(Optional) One or more SBS-SA	SBS-SA or APP-SA	-232.5