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ENGINEER

TEST

CONSULT

P.E. EVALUATION REPORT (PEER)

Johns Manville Corporation

P.O. Box 5108
Denver, CO 80217
(303) 978-4879

PEER-JM-003.A.R13

FL11475-R13 (NON-HVHZ)

Date of Issuance: 10/16/2008

Revision 13: 02/27/2024

SCOPE:

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

DESCRIPTION: JM TPO Single Ply Roof Systems (NON-HVHZ)

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

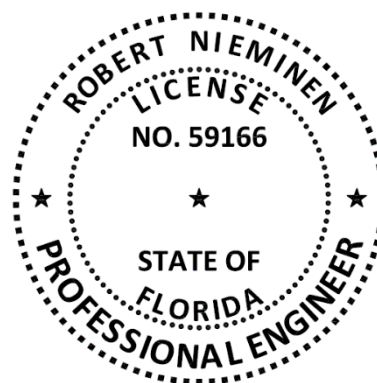
CONTINUED COMPLIANCE: This PEER is valid until such time as the named product(s) changes, the referenced Quality Assurance or production facility location(s) changes, or Code provisions that relate to the product(s) change. Acceptance of our PEERs by the named client constitutes agreement to notify NEMO 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 5, plus a 46-page 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.

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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: JM TPO Single Ply Roof Systems, as produced by Johns Manville, have demonstrated compliance with the following sections of the **8th 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
1504.3.1	Wind resistance	FM 4474
1504.6	Physical properties	ASTM G155
1504.7	Impact resistance	FM 4470
1507.10.2	Material standard	ASTM D2178
1507.10.2	Material standard	ASTM D4601
1507.11.2	Material standard	ASTM D6162
1507.11.2	Material standard	ASTM D6163
1507.11.2	Material standard	ASTM D6164
1507.12.2	Material standard	ASTM D6878

3. REFERENCES:

ENTITY	EXAMINATION	REFERENCE	DATE
NEMO	Material Standards (MB)	PEER-JM-005.A	12/21/2023
PRI (TST 5878)	ASTM D6878 / G155	JMC-319-02-02	08/22/2018
PRI (TST 5878)	ASTM D6878 / G155	JMC-319-02-01	08/24/2018
PRI (TST 5878)	ASTM D6878 / G155	507T0040	07/30/2020
PRI (TST 5878)	ASTM D6878 / G155	507T0058	09/11/2020
ACRC, LLC (TST4671)	TAS 114	14-044	12/05/2014
ERD (TST 6049)	FM 4470 / TAS 114	2009.J30820SC	11/19/2009
ERD (TST 6049)	FM 4470/4474	SC4910.02.14	02/10/2014
ERD (TST 6049)	FM 4474	SFS-SC10010.02.16-R1	07/06/2016
ERD (TST 6049)	FM 4474	JM-SC12145.02.17	02/06/2017
ERD (TST 6049)	FM 4474	JM-SC13465.04.17	04/19/2017
ERD (TST 6049)	FM 4474	JM-SC13465.08.17	08/25/2017
FM (TST 1867)	FM 4470	3009502	12/21/2000
FM (TST 1867)	FM 4470	3014692	08/05/2003
FM (TST 1867)	FM 4470/4474	3023458	07/18/2006
FM (TST 1867)	FM 4470/4474	3025881	08/09/2006
FM (TST 1867)	FM 4470/4474	3031917	02/20/2008
FM (TST 1867)	FM 4470/4474	3030383	05/13/2008
FM (TST 1867)	FM 4470/4474	3030259	06/02/2008
FM (TST 1867)	FM 4470/4474	3032235	06/27/2008
FM (TST 1867)	FM 4470/4474	1000004339	07/08/2008
FM (TST 1867)	FM 4470/4474	3033700	10/10/2008
FM (TST 1867)	FM 4470/4474	3034810	09/10/2009
FM (TST 1867)	FM 4470/4474	3035538	10/02/2009
FM (TST 1867)	FM 4470/4474	3036559	10/02/2009
FM (TST 1867)	FM 4470/4474	3036842	10/02/2009
FM (TST 1867)	FM 4470/4474	3037110	10/02/2009
FM (TST 1867)	FM 4470/4474	3037540	10/20/2010
FM (TST 1867)	FM 4470/4474	3043824	04/06/2012
FM (TST 1867)	FM 4470/4474	3044716	10/19/2012
FM (TST 1867)	FM 4470/4474	3046174	04/03/2013
FM (TST 1867)	FM 4470/4474	3051609	08/24/2014
FM (TST 1867)	FM 4470/4474	3053026	01/20/2015
FM (TST 1867)	FM 4470/4474	3056303	11/05/2015

ENTITY	EXAMINATION	REFERENCE	DATE
FM (TST 1867)	FM 4470/4474	3056677	02/22/2016
FM (TST1867)	FM 4470/4474	3055227	05/21/2015
FM (TST1867)	FM 4470/4474	3056049	01/13/2016
FM (TST1867)	FM 4470/4474	3058374	04/13/2016
FM (TST1867)	FM 4470/4474	3059030	04/29/2016
FM (TST1867)	FM 4470/4474	3055845	05/25/2016
FM (TST1867)	FM 4470/4474	3058201	08/29/2016
FM (TST1867)	FM 4470/4474	3058326	09/30/2016
FM (TST1867)	FM 4470/4474	3060138	01/11/2017
FM (TST1867)	FM 4470/4474	3060614	04/14/2017
FM (TST1867)	FM 4470/4474	3060573	05/12/2017
FM (TST1867)	FM 4470/4474	PR449524	12/12/2018
FM (TST1867)	FM 4470/4474	PR450753	01/09/2019
FM (TST1867)	FM 4470/4474	3059662	02/05/2019
FM (TST1867)	FM 4470/4474	PR451795	04/25/2019
FM (TST1867)	FM 4470/4474	RR219849	08/15/2019
FM (TST1867)	FM 4470/4474	PR454270	03/06/2020
FM (TST1867)	FM 4470/4474	PR455344	10/08/2020
FM (TST1867)	FM 4474	PR457312	04/20/2021
NEMO (TST6049)	UL1897	4a-JM-23-LSWUS-02.A	11/20/2023
NEMO (TST6049)	FM 4474	4a-JM-23-LSWUS-03.A	02/09/2024
PRI (TST 5878)	FM 4470/4474	JMC-163-02-01	09/06/2013
PRI (TST 5878)	FM 4470/4474	JMC-193-02-01	04/01/2014
PRI (TST 5878)	FM 4470/4474	JMC-193-02-01A	04/28/2014
PRI (TST 5878)	FM 4470/4474	JMC-237-02-01	08/24/2015
NEMO	Data Release	TFRM-0025-HBF	01/31/2024
UL LLC (QUA 9625)	Quality Control	Service Confirmation	12/15/2022
UL LLC (QUA 9625)	Quality Control	Florida BCIS	Current

4. PRODUCT DESCRIPTION:

TABLE 1: EVALUATED MEMBRANES						
TYPE	PRODUCT		MATERIAL STANDARD			PLANT(S)
			REFERENCE	TYPE	GRADE	
ROOF COVER OR CAP PLY	JM TPO	45, 60, 80-mil	ASTM D6878	N/A	N/A	AL
	JM TPO FB 115	60-mil	ASTM D6878	N/A	N/A	AL
	JM TPO FB 135	80-mil	ASTM D6878	N/A	N/A	AL
	JM TPO FB 150	60-mil	ASTM D6878	N/A	N/A	AL
	JM TPO FB 175	80-mil	ASTM D6878	N/A	N/A	AL
	JM TPO SA	60-mil	ASTM D6878	N/A	N/A	AL
BASE SHEET OR VAPOR BARRIER SHEETS	GlasBase Plus		ASTM D4601	II	N/A	CA
	PermaPly 28		ASTM D4601	II	N/A	OK
PLY SHEET OR VAPOR BARRIER SHEETS	GlasPly IV		ASTM D2178	IV	N/A	OK
	GlasPly Premier		ASTM D2178	VI	N/A	OK
BASE PLY OR VAPOR BARRIER MEMBRANES	DynaPly T1		ASTM D6162	I	S	GA
	DynaBase XT		ASTM D6163	I	S	GA
	DynaBase		ASTM D6163	I	S	GA
	DynaBase HW		ASTM D6163	I	S	GA
	DynaWeld Base		ASTM D6163	I	S	GA
	DynaBase PR		ASTM D6164	I	S	GA
	DynaLastic 180 S		ASTM D6164	I	S	GA
	DynaWeld 180 S		ASTM D6164	I	S	GA
	DynaLastic 250 S		ASTM D6164	II	S	GA

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 (February 2020)** for Zone 2/3 enhancements.
- 5.7.3 For assemblies with all components fully bonded in place, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with **FBC Chapter 16**. No rational analysis is permitted for these systems.

- 5.8 All components in the roof assembly shall have quality assurance audit in accordance with **F.A.C. Rule 61G20-3**. Refer to the Product Approval of the component manufacturer for components listed in Appendix 1 that are produced by a Product Manufacturer other than the report holder on [Page 1](#) of this PEER.

6. INSTALLATION:

JM TPO Single Ply Roof Systems shall be installed in accordance with **Johns Manville** 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

- THE 46-PAGES THAT FOLLOW FORM PART OF THIS PEER -

APPENDIX 1: ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE

TABLE	DECK	APPLICATION	TYPE	DESCRIPTION	PAGE
1A	Wood	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover	6
1B	Wood	New, Reroof (Tear-Off), Recover	C-2	Induction Welded Roof Cover	6
1C	Wood	New, Reroof (Tear-Off), Recover	D-1	Insulated, Mechanically Attached Roof Cover	7
2A	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	B-1	Mechanically Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	8
2B	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	B-1	Mechanically Attached Base Insulation, Bonded Top Insulation, Hybrid System	10
2C	Steel or Structural Concrete	New, Reroof (Tear-Off) or Recover	B-2	Mechanically Attached Thermal Barrier, Bonded Temp Roof, Bonded Insulation, Bonded Roof Cover	11
2D	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover	13
2E	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Hybrid System	21
2F	Steel	New, Reroof (Tear-Off), Recover	C-2	Induction Welded Roof Cover	21
2G	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	D-1	Insulated, Mechanically Attached Roof Cover (Stress Plates)	23
2H	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	D-1	Insulated, Mechanically Attached Roof Cover (RPS Strips)	25
3A	Structural Concrete	New, Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	26
3B	Structural Concrete	New, Reroof (Tear-Off)	A-1	Bonded Insulation, Hybrid System	34
3C	Structural Concrete	New, Reroof (Tear-Off), Recover	C-2	Induction Welded Roof Cover	35
4A	Deck with Lightweight Concrete	Reroof (Tear-Off), Recover	B-3	Mechanically Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	37
4B	Deck with Lightweight Concrete	Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover	38
4C	Deck with Lightweight Concrete	New, Reroof (Tear-Off)	F	LWC to Steel Deck, Bonded Roof Cover	38
4D	Deck with Lightweight Concrete	New, Reroof (Tear-Off)	F	LWC to Structural Concrete Deck, Bonded Roof Cover	39
4E	Deck with Lightweight Concrete	New, Reroof (Tear-Off)	F	Vapor Barrier to Structural Concrete Deck, LWC to Vapor Barrier, Bonded Roof Cover	39
5A	Existing gypsum	Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	40
6A	Various	Recover	A-1	Bonded Insulation, Bonded Roof Cover	40
6B	Various	Recover Over Existing Metal Roof	C-2	Mech. Attached Insulation, Plate-Bonded Roof Cover	44
6C	Various	Recover Over Existing Metal Roof	D-1	Insulated, Mechanically Attached Roof Cover	45
6D	Various	Recover	F	Non-Insulated, Bonded Roof Cover	46

The following notes apply to the systems outlined herein:

- The roof system evaluation herein pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction.
- Unless otherwise noted, fasteners and stress plates shall be as follows. Fasteners shall be of sufficient length for the following engagements:

FASTENER/PLATE OPTIONS			
DECK TYPE	BY	PARTS	MINIMUM ENGAGEMENT
Wood	Johns Manville	UltraFast Fasteners or All Purpose Fasteners with UltraFast Metal Plates	Minimum ¾-inch plywood penetration or minimum 1-inch wood plank embedment
Steel	Johns Manville	UltraFast Fasteners or All Purpose Fasteners with UltraFast Metal Plates	Minimum ¾-inch steel penetration and engage the top flute of the steel deck
Structural Concrete	Johns Manville	All Purpose Fasteners with UltraFast Metal Plates or Structural Concrete Fasteners with UltraFast Metal Plates (flat bottom only)	Minimum 1-inch embedment. Fasteners installed with a pilot hole in accordance with the fastener manufacturer's published installation instructions

- Unless otherwise noted, insulation may be any one layer or combination of FBC Approved (Local or Statewide) board(s) that meet FBC 1505 and, for foam plastic, FBC Chapter 26, when installed with the roof cover.

- 4 Minimum 200 psi, minimum 2-inch thick FBC Approved lightweight insulating concrete may be substituted for, or installed below, 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.
- 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.
 - JM Green Two Part Urethane Insulation Adhesive, JM Two Part Urethane Insulation Adhesive Canister, JM Two-Part UIA or JM Two-Part UIA Canister may be used where "UIA-TWO-PART" is referenced.
 - If applying hot asphalt to concrete deck, deck shall be primed with ASTM D41 primer.
 - 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.

INSULATION ADHESIVE REFERENCES				
By	FBC	ADHESIVE	REFERENCE	MINIMUM RATE
Johns Manville	N/A	JM MBR Bonding Adhesive	MBR-BA	Continuous 0.75-inch ribbons, 12-inch o.c.
		JM One-Step Foamable Adhesive	JM-OSFA	Continuous 0.75-inch ribbons, 12-inch o.c.
		JM Roofing System Urethane Adhesive	JM-RSUA	Continuous 0.5 to 0.75-inch wide ribbons, 12-inch o.c.
		JM Two Part Urethane Insulation Adhesive	UIA-TWO-PART	Continuous 0.75-inch ribbons, 12-inch o.c.
ICP Construction, Inc.	FL1365	Polyset Commercial Roof Adhesive	Polyset CRA	Continuous 2.5 to 3.5-inch wide ribbons, 12-inch o.c.
Generic, ASTM D312, Type IV	N/A	hot asphalt		Full coverage at 25-30 lbs/square

- 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	MIN. TAPERED THICKNESS (IN)	MDP (psf)
JM-OSFA	0.5	-157.5
JM RSUA	0.5	-157.5
UIA-TWO-PART	0.5	-315.0
Polyset CRA	1.0	-117.5

- 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](#)). 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, 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.

REFERENCE	LAYER	MATERIAL	MEMBRANE / ADHESIVE COMBINATIONS		
			ADHESIVE	METHOD	APPLICATION RATE
JM-TPO-LVOC	Roof Cover:	JM TPO	JM LVOC Membrane Adhesive (TPO & EPDM)	Contact (both sides)	ENRGY 3 & other polyisocyanurate: 1.1 gal/square (½ applied to substrate and ½ applied to membrane); Invinsa Roof Board, ProtectoR HD, ProtectoR HD FR Separator CGF, Separator FR, DensDeck Prime & SECUROCK Gypsum Fiber Roof Board: 1.67 gal/square (½ applied to substrate and ½ applied to membrane)
JM-TPO-MBA	Roof Cover:	JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM)	Contact (both sides)	ENRGY 3 & other polyisocyanurate: 1.1 gal/square (½ applied to substrate and ½ applied to membrane); Invinsa Roof Board, ProtectoR HD, ProtectoR HD FR Separator CGF, Separator FR, DensDeck Prime & SECUROCK Gypsum Fiber Roof Board: 1.67 gal/square (½ applied to substrate and ½ applied to membrane)
JM-TPO-WBMA	Roof Cover:	JM TPO	JM TPO Water Based Membrane Adhesive	Contact (both sides)	Invinsa Roof Board, ProtectoR HD, ProtectoR HD FR Separator CGF & Separator FR: 0.56 – 0.71 gal/square; SECUROCK Gypsum-Fiber Roof Board: 0.59 – 0.77 gal/square ENRGY 3, ValuTherm: 0.63 – 0.83 gal/square
JM-TPOFB-HA	Roof Cover or Cap Ply:	JM TPO FB 150 or 175	hot asphalt	Wet lay (substrate)	Hot asphalt at 20 lbs/square.
JM-TPOFB-RSUA	Roof Cover:	JM TPO FB 115 or 135	JM Roofing System Urethane Adhesive	Wet lay (substrate)	0.5 to 0.75-inch wide ribbons spaced as noted in tables herein or applied in a spatter pattern at a rate of 0.55 to 0.75 gal/square.
JM-TPOFB-TPUIA	Roof Cover:	JM TPO FB 115 or 135	JM Single Ply Two Part Urethane Insulation Adhesive	Wet lay (substrate)	0.5 to 0.75-inch wide ribbons spaced as noted in tables herein.
JM-TPOFB-TPUIA-C	Roof Cover:	JM TPO FB 115 or 135	JM Two Part Urethane Insulation Adhesive Canister	Wet lay (substrate)	“Splatter-applied” at 0.318 gal/sq.
JM-TPOFB-WBMA	Roof Cover:	JM TPO FB 115 or 135	JM TPO Water Based Membrane Adhesive	Wet lay (substrate)	Invinsa Roof Board, ProtectoR HD, ProtectoR HD FR Separator CGF & Separator FR: 0.56 – 0.71 gal/square; SECUROCK Gypsum-Fiber Roof Board: 0.59 – 0.77 gal/square ENRGY 3, ValuTherm: 0.63 – 0.83 gal/square
BP-AA	Base Ply:	One or more GlasBase Plus, PermaPly 28	hot asphalt	Wet lay (substrate)	Hot asphalt at 20-40 lbs/square.
	Ply:	One or more GlasPly IV, GlasPly Premier, GlasBase Plus, PermaPly 28			
SBS-AA	Base Ply or Ply:	One or more DynaPly T1, DynaBase, DynaBase XT, DynaBase PR, DynaLastic 180 S, DynaLastic 250 S	hot asphalt	Wet lay (substrate)	Hot asphalt at 20 lbs/square.
SBS-TA	Base Ply or Ply:	One or more DynaBase HW, DynaWeld Base, DynaWeld 180 S	torch-applied	Full-bond	torch-applied

15A For single-ply membranes in System Type D-1 or E-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.

16 Thermal Barrier and/or Vapor Barrier Options:

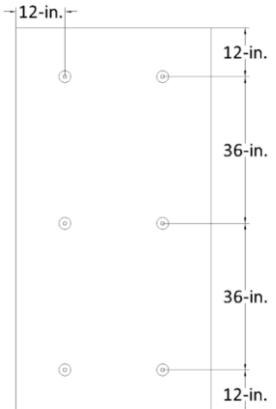
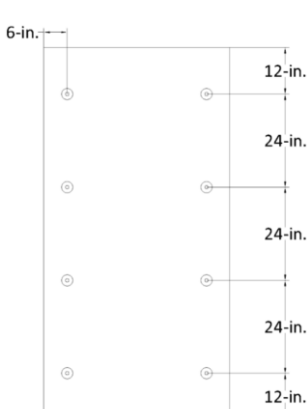
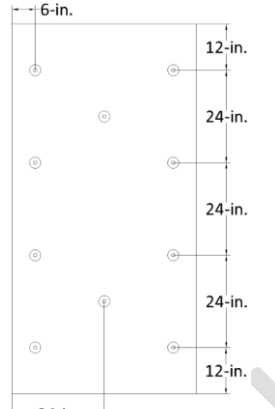
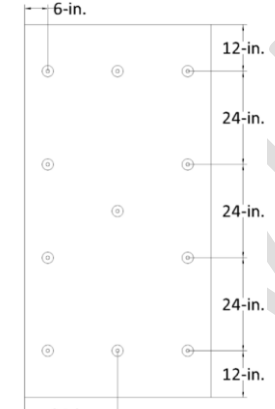
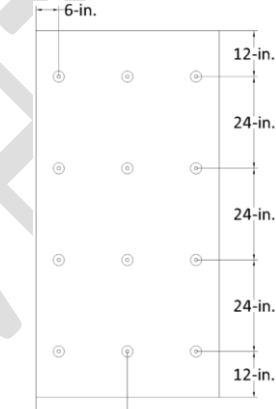
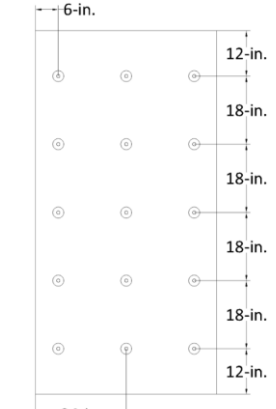
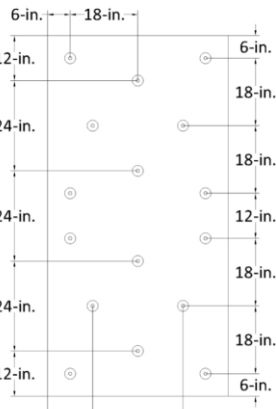
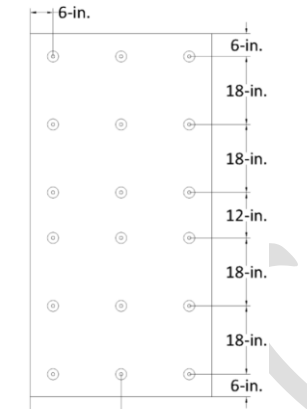
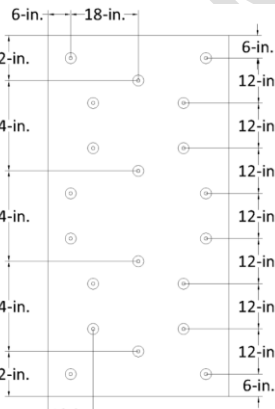
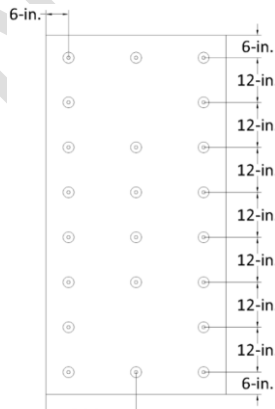
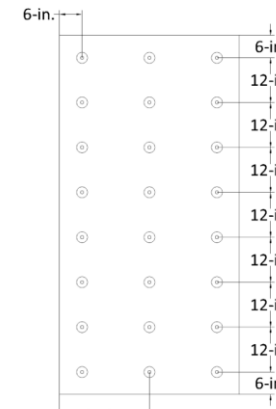
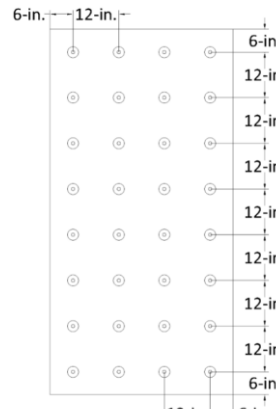
16A Structural Concrete Decks: The lesser of the MDP listings below vs. that for the selected assembly applies.

VAPOR BARRIER OPTIONS; STRUCTURAL CONCRETE DECK; FOLLOWED BY ADHESIVE-APPLIED INSULATION					
OPTION #	PRIMER	VAPOR BARRIER		INSULATION ADHESIVE PER TABLE 3A	MDP (psf)
		TYPE	APPLICATION		
C-VB-1.	ASTM D41	Two plies GlasPly IV, GlasPly Premier in hot asphalt	Hot asphalt	JM-OSFA, 12-inch o.c.	-180.0
C-VB-2.	ASTM D41	DynaPly T1, DynaBase, DynaBase XT, DynaBase PR, DynaLastic 180 S, DynaLastic 250 S	Hot asphalt	JM-OSFA, 12-inch o.c.	-180.0
C-VB-3.	ASTM D41	DynaBase HW, DynaWeld Base, DynaWeld 180 S	Torch-applied	JM-OSFA, 12-inch o.c.	-180.0
C-VB-4.	ASTM D41	Two plies GlasPly IV, GlasPly Premier in hot asphalt	Hot asphalt	JM-RSUA, 12-inch o.c.	-180.0
C-VB-5.	JM SA Primer Low VOC	JM Vapor Barrier SA	Self-adhering	JM-RSUA, 12-inch o.c.	-277.5
C-VB-6.	ASTM D41	DynaPly T1, DynaBase, DynaBase XT, DynaBase PR, DynaLastic 180 S, DynaLastic 250 S	Hot asphalt	JM-RSUA, 12-inch o.c.	-277.5
C-VB-7.	ASTM D41	DynaBase HW, DynaWeld Base, DynaWeld 180	Torch-applied	JM-RSUA, 12-inch o.c.	-292.5
C-VB-8.	JM SA Primer Low VOC	JM Vapor Barrier SA	Self-adhering	UIA-TWO-PART, 12-inch o.c.	-277.5
C-VB-9.	ASTM D41	DynaPly T1, DynaBase, DynaBase XT, DynaBase PR, DynaLastic 180 S, DynaLastic 250 S	Hot asphalt	UIA-TWO-PART, 12-inch o.c.	-277.5
C-VB-10.	ASTM D41	DynaBase HW, DynaWeld Base, DynaWeld 180 S	Torch-applied	UIA-TWO-PART, 12-inch o.c.	-277.5

16B For System Types B-1, B-2, C-1, C-2, D-1 or D-2, the following vapor barrier membranes 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 limitations.

- Min. 4-mil polyethylene, loose laid
- JM Vapor Barrier SA, self-adhered to minimum 0.5 in. (13 mm) thick SECUROCK Gypsum-Fiber Roof Board, DEXcell FA Glass Mat Roof Board or DEXcell Cement Roof Board. The thermal barrier may be primed with JM SA Primer Low VOC.
- DynaGrip Base SD/SA, self-adhered to minimum 0.5 in. (13 mm) thick SECUROCK Gypsum-Fiber Roof Board or DEXcell FA Glass Mat Roof Board.
- DynaBase HW, torch applied to minimum 0.5 in. (13 mm) thick DEXcell FA Glass Mat Roof Board.

17 Unless otherwise noted, insulation or coverboard attachment patterns for Type B-1, Type B-2, Type C-1 and Type C-2 systems are as outlined below:

INSULATION ATTACHMENT PATTERNS					
 1 per 5.3 ft² (6 per board)	 1 per 4.0 ft² (8 per board)	 1 per 3.2 ft² (10 per board)	 1 per 2.9 ft² (11 per board)	 1 per 2.7 ft² (12 per board)	 1 per 2.1 ft² (15 per board)
 1 per 2.0 ft² (16 per board)	 1 per 1.8 ft² (18 per board)	 1 per 1.6 ft² (20 per board)	 1 per 1.45 ft² (22 per board)	 1 per 1.3 ft² (24 per board)	 1 per 1.0 ft² (32 per board)

18 "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. [\(Notes 9 and 10\)](#)

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

System No.	Deck (Note 1)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 11)	Attach (Note 17)		
JM TPO APPLICATIONS:							
W-1	Min. 19/32" APA rated OSB or min. 15/32" APA rated plywood	(Optional) One or more layers, any type, thickness or combination, loose laid	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or Min. 7/16-inch DEXcell Cement Roof Board	All Purpose Fasteners with UltraFast Square Metal Plates	1 per 2.7 ft²	JM-TPO-MBA	-37.5*
W-2	Min. 15/32" TECO rated plywood or OSB	(Optional) One or more layers, any type, thickness or combination, loose laid	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or Min. 7/16-inch DEXcell Cement Roof Board	All Purpose Fasteners with UltraFast Square Metal Plates	1 per 2.7 ft²	JM-TPO-MBA	-45.0*
W-3	Min. 7/16" APA rated OSB or min. 15/32" APA rated plywood	(Optional) One or more layers, any type, thickness or combination, loose laid	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	All Purpose Fasteners with UltraFast Square Metal Plates	1 per 2.0 ft²	JM-TPO-MBA or JM-TPO-LVOC	-45.0*
JM TPO FB 150 OR 175 APPLICATIONS:							
W-4	Min. 19/32" APA rated OSB or min. 15/32" APA rated plywood	(Optional) One or more layers, any type, thickness or combination, loose laid	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or Min. 7/16-inch DEXcell Cement Roof Board	All Purpose Fasteners with UltraFast Square Metal Plates	1 per 2.7 ft²	JM-TPOFB-HA	-37.5*
W-5	Min. 15/32" TECO rated plywood or OSB	(Optional) One or more layers, any type, thickness or combination, loose laid	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or Min. 7/16-inch DEXcell Cement Roof Board	All Purpose Fasteners with UltraFast Square Metal Plates	1 per 2.7 ft²	JM-TPOFB-HA	-45.0*

TABLE 1B: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-2: INDUCTION WELDED ROOF COVER

System No.	Deck (Note 1)	Insulation Layer (Note 3, Note 13)	Attach		Roof Cover (Note 15B)	MDP (psf)
			Fasteners (Note 11)	Density		
W-6	Min. 19/32" APA rated OSB	One or more layers, any combination	All Purpose Fasteners with JM TPO RhinoPlates	1 per 5.3 ft ² (6 parts per 4x8 ft board) (Note 17)	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer's published instructions. Laps sealed with 1.5-inch heat weld.	-22.5*
W-7	Min. 15/32" APA rated plywood at 24" span	One or more layers, any combination	All Purpose Fasteners with JM TPO RhinoPlates	1 per 2.7 ft ² (16" x 24" grid)	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer's published instructions. Laps sealed with 1.5-inch heat weld.	-37.5
W-8	Min. 7/16" APA rated OSB at 24" span	One or more layers, any combination	All Purpose Fasteners with JM TPO RhinoPlates, installed to engage wood joists	18" o.c. in rows spaced 48" o.c. (Fasteners engage wood joists)	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer's published instructions. Laps sealed with 1.5-inch heat weld.	-45.0*
W-9	Min. 15/32" TECO rated OSB or Min. 19/32" APA rated plywood	One or more layers, any combination	All Purpose Fasteners with JM TPO RhinoPlates	1 per 4.0 ft ² (24" x 24" grid)	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer's published instructions. Laps sealed with 1.5-inch heat weld.	-45.0*

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

System No.	Deck (Note 1)	Insulation (Note 3, Note 13)		Roof Cover (Note 15A)			MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners (Note 11)	Attach	
W-10	Min. 19/32" APA rated plywood at 24" span	One or more layers, any combination with top layer of Invinsa Roof Board	Prelim. attached	JM TPO 45, 60, 72 or 80 (8 ft sheet)	All Purpose Fasteners with High Load Plates	6-inch o.c. within 6-inch wide laps spaced 90-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-37.5
W-11	Min. 19/32" plywood at max. 24" spans with blocking at unsupported joints	One or more layers, any combination with top layer of DensDeck, DensDeck Prime, DEXCell FA Glass Mat Roof Board or SECUROCK Gypsum Fiber Roof Board	Prelim. attached	JM TPO 45, 60, 72 or 80 (8 ft sheet)	High Load Fasteners with High Load Plates	6-inch o.c. within 6-inch wide laps spaced 90-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-60.0

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

System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
		Type	Fasten (Note 11)	Attach (Note 17)	Type	Attach (Notes 6,7,8)		
JM TPO APPLICATIONS:								
S-1.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 2.0 ft²	Min. 0.5-inch RetroPlus Board	JM-RSUA	JM-TPO-MBA or JM-TPO-LVOC	-45.0*
S-2.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2 (square plates)	1 per 4.0 ft²	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	JM-TPO-LVOC	-45.0*
S-3.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 2.0 ft²	Min. 0.5-inch RetroPlus Board	UIA-TWO-PART	JM-TPO-MBA or JM-TPO-LVOC	-45.0*
S-4.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 2.0 ft²	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	UIA-TWO-PART	JM-TPO-MBA	-45.0*
S-5.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ENRGY 3, ValuTherm	Note 2	1 per 1.3 ft²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-52.5
JM TPO FB APPLICATIONS:								
S-6.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 2.0 ft²	Additional layer(s) base insulation	Hot Asphalt	JM-TPOFB-WBMA	-45.0*
S-7.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 4.0 ft²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM-OSFA	JM-TPOFB-WBMA	-37.5*
S-8.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 2.7 ft²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM-OSFA	JM-TPOFB-WBMA	-45.0*

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

System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
		Type	Fasten (Note 11)	Attach (Note 17)	Type	Attach (Notes 6,7,8)		
S-9.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 1.0 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM-RSUA, 6-inch o.c.	JM-TPOFB-RSUA, 12-inch o.c.	-67.5
S-10.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 4.0 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM-TPOFB-WBMA	-37.5*
S-11.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 2.0 ft ²	Additional layer(s) base insulation	UIA-TWO-PART	JM-TPOFB-WBMA	-45.0*
S-12.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 2.7 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM-TPOFB-WBMA	-45.0*
S-13.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ENRGY 3, ValuTherm	Note 2	1 per 1.3 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM-TPOFB-WBMA	-52.5
S-14.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 4.0 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Polysat CRA	JM-TPOFB-WBMA	-37.5*
S-15.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 2.7 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Polysat CRA	JM-TPOFB-WBMA	-45.0*
JM TPO FB 150 OR 175 APPLICATIONS:								
S-16.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 2.0 ft ²	0.5-inch RetroPlus Board, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM-TPOFB-HA	-45.0*
S-17.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 2.0 ft ²	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	UIA-TWO-PART	JM-TPOFB-HA	-45.0*
JM TPO SA APPLICATIONS:								

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

System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
		Type	Fasten (Note 11)	Attach (Note 17)	Type	Attach (Notes 6,7,8)		
S-18.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2 (square plates)	1 per 4.0 ft ²	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	JM TPO SA – 60 MIL	-45.0*
S-19.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 2.0 ft ²	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	UIA-TWO-PART	JM TPO SA – 60 MIL	-45.0*
S-20.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ENRGY 3, ValuTherm	Note 2	1 per 1.3 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM TPO SA – 60 MIL	-52.5

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, HYBRID SYSTEM

System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)		MDP (psf)
		Type	Fasten (Note 11)	Attach (Note 17)	Type	Attach (Notes 6,7,8)	Base Ply(s)	Cap Ply	
S-21.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	Min. 1.5-inch ENRGY 3, Fesco Foam or DuraFoam	Note 2	1 per 2.0 ft ²	Min. 0.5-inch Retro-Fit Board or DuraBoard, min. 0.75-inch Fesco Board (flat or tapered) or min. 1.5-inch Fesco Foam or DuraFoam	hot asphalt	BP-AA, SBS-AA	JM-TPOFB-HA	-52.5
S-22.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	Min. 1.5-inch ENRGY 3, Fesco Foam or DuraFoam	Note 2	1 per 1.8 ft ²	Min. 0.5-inch Retro-Fit Board or DuraBoard or min. 1.5-inch Fesco Foam or DuraFoam	hot asphalt	BP-AA, SBS-AA	JM-TPOFB-HA	-60.0
S-23.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	Min. 2-inch ENRGY 3	Note 2	1 per 2.0 ft ²	Min. 3/8-inch SECUROCK Gypsum-Fiber Roof Board	hot asphalt	BP-AA, SBS-AA, SBS-TA	JM-TPOFB-HA	-60.0
S-24.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	Min. 2-inch ENRGY 3	Note 2	1 per 2.0 ft ²	Min. 3/8-inch SECUROCK Gypsum-Fiber Roof Board	RSUA, 6-inch o.c.	BP-AA, SBS-AA, SBS-TA	JM-TPOFB-HA	-60.0
S-25.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	Min. 2-inch ENRGY 3	Note 2	1 per 2.0 ft ²	Min. 3/8-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	BP-AA, SBS-AA, SBS-TA	JM-TPOFB-HA	-60.0

TABLE 2C: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF)
SYSTEM TYPE B-2: MECHANICALLY ATTACHED THERMAL BARRIER, BONDED TEMP ROOF, BONDED TOP INSULATION, BONDED ROOF COVER

Sys. No.	Deck (Note 1)	Thermal Barrier			Temp Roof		Base Insulation		Top Insulation		Roof Cover (Note 15)	MDP (psf)
		Type	Fasten (Note 11)	Attach (Note 17)	Type	Attach	Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
JM TPO APPLICATIONS:												
S-26.	Min. 22 ga., Type B, Grade 33 steel	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Note 2	1 per 4.0 ft²	JM SA Primer Low VOC followed by JM Vapor Barrier SA	Self-adhered	One or more layers, min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	UIA-TWO-PART	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	JM-TPO-LVOC	-45.0*
S-27.	Min. 22 ga., Type B, Grade 33 steel	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Note 2	1 per 4.0 ft²	JM SA Primer Low VOC followed by JM Vapor Barrier SA	Self-adhered	One or more layers, min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	UIA-TWO-PART	Min. 0.5-inch RetroPlus Board	UIA-TWO-PART	JM-TPO-MBA or JM-TPO-LVOC	-45.0*
S-28.	Min. 22 ga., Type B, Grade 33 steel	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Note 2	1 per 4.0 ft²	JM SA Primer Low VOC followed by JM Vapor Barrier SA	Self-adhered	One or more layers, min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	UIA-TWO-PART	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	UIA-TWO-PART	JM-TPO-MBA	-45.0*
S-29.	Min. 22 ga., Type B, Grade 33 steel	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Note 2	1 per 4.0 ft²	JM SA Primer Low VOC followed by JM Vapor Barrier SA	Self-adhered	One or more layers, min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	UIA-TWO-PART	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-45.0*
JM TPO FB APPLICATIONS:												
S-30.	Min. 22 ga., Type B, Grade 33 steel	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Note 2	1 per 4.0 ft²	JM SA Primer Low VOC followed by JM Vapor Barrier SA	Self-adhered	One or more layers, min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	UIA-TWO-PART	Additional layer(s) base insulation	UIA-TWO-PART	JM-TPOFB-WBMA	-45.0*
S-31.	Min. 22 ga., Type B, Grade 33 steel	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Note 2	1 per 4.0 ft²	JM SA Primer Low VOC followed by JM Vapor Barrier SA	Self-adhered	One or more layers, min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	UIA-TWO-PART	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM-TPOFB-WBMA	-45.0*

TABLE 2C: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF)
SYSTEM TYPE B-2: MECHANICALLY ATTACHED THERMAL BARRIER, BONDED TEMP ROOF, BONDED TOP INSULATION, BONDED ROOF COVER

Sys. No.	Deck (Note 1)	Thermal Barrier			Temp Roof		Base Insulation		Top Insulation		Roof Cover (Note 15)	MDP (psf)
		Type	Fasten (Note 11)	Attach (Note 17)	Type	Attach	Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
S-32.	Min. 22 ga., Type B, Grade 80 steel	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Note 2	1 per 1.0 ft ²	JM SA Primer followed by JM Vapor Barrier SA	Self-adhered	Min. 1.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, SeparatoR, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	RSUA, 6-inch o.c.	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	RSUA, 6-inch o.c.	JM-TPOFB-RSUA, 6-inch o.c.	-82.5
JM TPO FB 150 OR 175 APPLICATIONS:												
S-33.	Min. 22 ga., Type B, Grade 33 steel	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Note 2	1 per 4.0 ft ²	JM SA Primer Low VOC followed by JM Vapor Barrier SA	Self-adhered	One or more layers, min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	UIA-TWO-PART	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	UIA-TWO-PART	JM-TPOFB-HA	-45.0*
JM TPO SA APPLICATIONS:												
S-34.	Min. 22 ga., Type B, Grade 33 steel	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Note 2	1 per 4.0 ft ²	JM SA Primer Low VOC followed by JM Vapor Barrier SA	Self-adhered	One or more layers, min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	UIA-TWO-PART	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	JM TPO SA – 60 MIL	-45.0*
S-35.	Min. 22 ga., Type B, Grade 33 steel	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Note 2	1 per 4.0 ft ²	JM SA Primer Low VOC followed by JM Vapor Barrier SA	Self-adhered	One or more layers, min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	UIA-TWO-PART	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM TPO SA – 60 MIL	-45.0*

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

System No.	Deck (Note 1)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 11)	Attach (Note 17)		
JM TPO APPLICATIONS:							
S-36.	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. 1.75-inch Invinsa Foam	Note 2	1 per 4.0 ft²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-30.0*
S-37.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, any combination, loose laid	Min. 0.25-inch Invinsa Roof Board	Note 2	1 per 2.0 ft²	JM-TPO-MBA OR JM-TPO-WBMA	-30.0*
S-38.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.7 ft²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-37.5*
S-39.	Min. 22 ga., Type B, Grade 33 steel	(Optional) ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3 or 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, loose laid	Min. 2-inch Fesco Foam	Note 2 ; All Purpose Fastener only	1 per 5.3 ft²	JM-TPO-MBA or JM-TPO-LVOC	-37.5*
S-40.	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 ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 4.0 ft²	JM-TPO-MBA OR JM-TPO-WBMA	-45.0*
S-41.	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 ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, ENRGY 3 FR, ENRGY 3 25 PSI FR, ENRGY 3 C1, ENRGY 3 C1 CGF	Note 2 (round or square plates)	1 per 2.7 ft²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-45.0*
S-42.	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 ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 2.0 ft²	JM-TPO-MBA OR JM-TPO-WBMA	-45.0*
S-43.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	0.5-inch Protector HD or Protector HD FR	Note 2 (square plates)	1 per 2.9 ft²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-45.0*
S-44.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	0.5-inch Protector HD or Protector HD FR	Note 2 (square plates)	1 per 4.0 ft²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-45.0*
S-45.	Min. 22 ga., Type B, Grade 33 steel	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3 or 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, loose laid	Min. 0.25-inch InvinsaPlus	Note 2	1 per 4.0 ft²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-45.0*
S-46.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	0.5-inch Separator CGF or Separator FR	Note 2 (square plates)	1 per 4.0 ft²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-45.0*

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

System No.	Deck (Note 1)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 11)	Attach (Note 17)		
S-47.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.75-inch Invinsa Foam	Note 2	1 per 2.9 ft ²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-45.0*
S-48.	Min. 22 ga., Type B, Grade 33 steel	(Optional) ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3 or 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, loose laid	Min. 2-inch Invinsa Foam	Note 2 ; All Purpose Fastener only	1 per 5.3 ft ²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-45.0*
S-49.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, any combination, loose laid	Min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 4.0 ft ²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-45.0*
S-50.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2 (square plates)	1 per 4.0 ft ²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-45.0*
S-51.	Min. 22 ga., Type B, Grade 33 steel	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3 or 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, loose laid	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or 7/16-inch DEXcell Cement Roof Board	Note 2	1 per 3.2 ft ²	JM-TPO-MBA	-45.0*
S-52.	Min. 22 ga., Type B, Grade 33 steel	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3 or 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, loose laid	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Note 2	1 per 4.0 ft ²	JM-TPO-MBA	-45.0*
S-53.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, loose laid	Min. 0.375-inch SECUROCK Gypsum-Fiber Roof Board	Note 2 (square plates)	1 per 2.7 ft ²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-45.0*
S-54.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 7/16-inch APA rated OSB	Note 2	1 per 2.0 ft ²	JM-TPO-MBA	-45.0*
S-55.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 1.8 ft ²	JM-TPO-MBA or JM-TPO-LVOC	-52.5
S-56.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 FR	Note 2 (square plates)	1 per 2.7 ft ²	JM-TPO-MBA or JM-TPO-LVOC	-52.5
S-57.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Note 2 (square plates)	1 per 1.3 ft ²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-52.5
S-58.	Min. 22 ga., Type B, Grade 33 steel	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3 or 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, loose laid	Min. 0.25-inch InvinsaPlus	Note 2	1 per 2.7 ft ²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-52.5

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

System No.	Deck (Note 1)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 11)	Attach (Note 17)		
S-59.	Min. 22 ga., Type B, Grade 80 steel	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3 or 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, loose laid	Min. 0.25-inch InvinSaPlus	Note 2	1 per 2.0 ft ²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-60.0
S-60.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch ENRGY 3, ENRGY 3.E, ENRGY 3.E 25 PSI ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF, ValuTherm AGF, ENRGY 3 25 PSI AGF, ValuTherm 25 PSI AGF, ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, ENRGY 3 FR, ENRGY 3 25 PSI FR	Note 2 (square plates)	1 per 1.8 ft ²	JM-TPO-MBA or JM-TPO-LVOC	-60.0
S-61.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 FR	Note 2 (square plates)	1 per 2.0 ft ²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-67.5
S-62.	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 ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, ENRGY 3 FR, ENRGY 3 25 PSI FR, ENRGY 3 C1, ENRGY 3 C1 CGF	Note 2 (round or square plates)	1 per 1.6 ft ²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-75.0
S-63.	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 InvinSa Foam	Note 2 (square plates)	1 per 2.0 ft ²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-75.0
S-64.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, any combination, loose laid	Min. 7/16-inch APA rated OSB	Note 2	1 per 1.8 ft ²	JM-TPO-MBA or JM-TPO-LVOC	-75.0
S-65.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	Min. 0.5-inch SECURLOCK Gypsum-Fiber Roof Board	Note 2 (square plates)	1 per 1.6 ft ²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-75.0
S-66.	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 ENRGY 3 CGF, ValuTherm CGF	Note 2 (square recessed plates)	1 per 1.0 ft ²	JM-TPO-MBA	-75.0
S-67.	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 ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, ENRGY 3 FR, ENRGY 3 25 PSI FR, ENRGY 3 C1, ENRGY 3 C1 CGF	Note 2 (round or square plates)	1 per 1.0 ft ²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-82.5
S-68.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	Min. 0.5-inch DensDeck Prime or DEXcell FA Glass Mat Roof Board	Note 2 (square plates)	1 per 1.0 ft ²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-82.5
S-69.	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 FR	Note 2 (square plates)	1 per 1.3 ft ²	JM-TPO-MBA or JM-TPO-LVOC	-105.0

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

System No.	Deck (Note 1)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 11)	Attach (Note 17)		
S-70.	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Note 2 (square plates)	1 per 1.0 ft ²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-105.0
S-71.	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	Min. 0.5-inch DensDeck Prime	Note 2 (square plates)	1 per 1.0 ft ²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-112.5
S-72.	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2.0-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, ENRGY 3 FR, ENRGY 3 25 PSI FR, ENRGY 3 C1, ENRGY 3 C1 CGF	Note 2 (round or square plates)	1 per 1.0 ft ²	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-120.0
S-73.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2 (square plates)	1 per 1.0 ft ²	JM-TPO-WBMA	-150.0*
JM TPO FB APPLICATIONS:							
S-74.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, any combination, loose laid	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 4.0 ft ²	JM-TPOFB-WBMA	-37.5*
S-75.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.7 ft ²	JM-TPOFB-WBMA	-37.5*
S-76.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	0.5-inch Protector HD or Protector HD FR	Note 2 (square plates)	1 per 2.9 ft ²	JM-TPOFB-WBMA	-37.5*
S-77.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, any combination, loose laid	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 2.0 ft ²	JM-TPOFB-WBMA	-45.0*
S-78.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, any combination, loose laid	Min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 4.0 ft ²	JM-TPOFB-WBMA	-45.0*
S-79.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2 (square plates)	1 per 4.0 ft ²	JM-TPOFB-WBMA	-45.0*
S-80.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, loose laid	Min. 0.375-inch SECUROCK Gypsum-Fiber Roof Board	Note 2 (square plates)	1 per 2.7 ft ²	JM-TPOFB-WBMA	-45.0*
S-81.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	0.5-inch Protector HD or Protector HD FR	Note 2 (square plates)	1 per 4.0 ft ²	JM-TPOFB-RSUA, 12-inch o.c. or JM-TPOFB-TPUIA-C	-45.0*

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

System No.	Deck (Note 1)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 11)	Attach (Note 17)		
S-82.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	0.5-inch SeparatoR CGF or SeparatoR FR	Note 2 (square plates)	1 per 4.0 ft²	JM-TPOFB-TPUIA-C	-45.0*
S-83.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Note 2 (square plates)	1 per 1.3 ft²	JM-TPOFB-WBMA	-52.5
S-84.	Min. 22 ga., Type B, Grade 33 steel	Min. 0.5-inch DEXcell FA Glass Mat Roof Board, loose laid, followed by JM Vapor Barrier SA, self-adhered, followed by Min. 1.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, SeparatoR, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF, ValuTherm AGF, ENRGY 3 25 PSI AGF, ValuTherm 25 PSI AGF, ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, ENRGY 3 FR, ENRGY 3 25 PSI FR, loose laid	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Note 2	1 per 1.0 ft²	JM-TPOFB-RSUA, 4-inch o.c.	-82.5
S-85.	Min. 22 ga., Type B, Grade 80 steel	Min. 0.5-inch DEXcell FA Glass Mat Roof Board, loose laid, followed by JM Vapor Barrier SA, self-adhered, followed by Min. 1.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, SeparatoR, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF, ValuTherm AGF, ENRGY 3 25 PSI AGF, ValuTherm 25 PSI AGF, ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, ENRGY 3 FR, ENRGY 3 25 PSI FR, loose laid	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Note 2	1 per 1.0 ft²	JM-TPOFB-RSUA, 4-inch o.c.	-142.5
S-86.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2 (square plates)	1 per 1.0 ft²	JM-TPOFB-WBMA	-150.0*
JM TPO FB 150 OR 175 APPLICATIONS:							
S-87.	Min. 22 ga., Type B, Grade 33 steel	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3 or 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, loose laid	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Note 2	1 per 3.2 ft²	JM-TPOFB-HA	-45.0*
S-88.	Min. 22 ga., Type B, Grade 33 steel	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3 or 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, loose laid	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Note 2	1 per 4.0 ft²	JM-TPOFB-HA	-45.0*
S-89.	Min. 22 ga., Type B, Grade 40 steel or min. 2,500 psi structural concrete	One or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2 (square plates)	1 per 2.0 ft²	JM-TPOFB-HA	-60.0
S-90.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2 (square plates)	1 per 1.6 ft²	JM-TPOFB-HA	-75.0
S-91.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	Min. 0.5-inch DensDeck Prime	Note 2 (square plates)	1 per 1.0 ft²	JM-TPOFB-HA	-82.5

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

System No.	Deck (Note 1)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 11)	Attach (Note 17)		
S-92.	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	Min. 0.5-inch DensDeck Prime	Note 2 (square plates)	1 per 1.0 ft ²	JM-TPOFB-HA	-112.5
JM TPO SA APPLICATIONS:							
S-93.	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. 1.75-inch Invinsa Foam	Note 2	1 per 4.0 ft ²	JM TPO SA – 60 MIL	-30.0*
S-94.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, any combination, loose laid	Min. 0.25-inch Invinsa Roof Board	Note 2	1 per 2.0 ft ²	JM TPO SA – 60 MIL	-30.0*
S-95.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.7 ft ²	JM TPO SA – 60 MIL	-37.5*
S-96.	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 ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 4.0 ft ²	JM TPO SA – 60 MIL	-45.0*
S-97.	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 ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, ENRGY 3 FR, ENRGY 3 25 PSI FR, ENRGY 3 C1, ENRGY 3 C1 CGF	Note 2 (round or square plates)	1 per 2.7 ft ²	JM TPO SA – 60 MIL	-45.0*
S-98.	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 ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Note 2	1 per 2.0 ft ²	JM TPO SA – 60 MIL	-45.0*
S-99.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	0.5-inch Protector HD or Protector HD FR	Note 2 (square plates)	1 per 2.9 ft ²	JM TPO SA – 60 MIL	-45.0*
S-100.	Min. 22 ga., Type B, Grade 33 steel	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3 or 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, loose laid	Min. 0.25-inch InvinsaPlus	Note 2	1 per 4.0 ft ²	JM TPO SA – 60 MIL	-45.0*
S-101.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	0.5-inch Separator CGF or Separator FR	Note 2 (square plates)	1 per 4.0 ft ²	JM TPO SA – 60 MIL	-45.0*
S-102.	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. 1.75-inch Invinsa Foam	Note 2	1 per 2.9 ft ²	JM TPO SA – 60 MIL	-45.0*

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

System No.	Deck (Note 1)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 11)	Attach (Note 17)		
S-103.	Min. 22 ga., Type B, Grade 33 steel	(Optional) ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3 or 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, loose laid	Min. 2-inch Invinsa Foam	Note 2 ; All Purpose Fastener only	1 per 5.3 ft ²	JM TPO SA – 60 MIL	-45.0*
S-104.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, any combination, loose laid	Min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 4.0 ft ²	JM TPO SA – 60 MIL	-45.0*
S-105.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2 (square plates)	1 per 4.0 ft ²	JM TPO SA – 60 MIL	-45.0*
S-106.	Min. 22 ga., Type B, Grade 33 steel	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3 or 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, loose laid	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Note 2	1 per 3.2 ft ²	JM TPO SA – 60 MIL	-45.0*
S-107.	Min. 22 ga., Type B, Grade 33 steel	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3 or 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, loose laid	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Note 2	1 per 4.0 ft ²	JM TPO SA – 60 MIL	-45.0*
S-108.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, loose laid	Min. 0.375-inch SECUROCK Gypsum-Fiber Roof Board	Note 2 (square plates)	1 per 2.7 ft ²	JM TPO SA – 60 MIL	-45.0*
S-109.	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 ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSA CGF	Note 2	1 per 1.8 ft ²	JM TPO SA – 60 MIL	-52.5
S-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. 2-inch ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 FR	Note 2 (square plates)	1 per 2.7 ft ²	JM TPO SA – 60 MIL	-52.5
S-111.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Note 2 (square plates)	1 per 1.3 ft ²	JM TPO SA – 60 MIL	-52.5
S-112.	Min. 22 ga., Type B, Grade 33 steel	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3 or 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, loose laid	Min. 0.25-inch InvinsaPlus	Note 2	1 per 2.7 ft ²	JM TPO SA – 60 MIL	-52.5
S-113.	Min. 22 ga., Type B, Grade 80 steel	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3 or 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, loose laid	Min. 0.25-inch InvinsaPlus	Note 2	1 per 2.0 ft ²	JM TPO SA – 60 MIL	-60.0
S-114.	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 ENRGY 3, ENRGY 3.E, ENRGY 3.E 25 PSI ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF, ValuTherm AGF, ENRGY 3 25 PSI AGF, ValuTherm 25 PSI AGF, ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, ENRGY 3 FR, ENRGY 3 25 PSI FR	Note 2 (square plates)	1 per 1.8 ft ²	JM TPO SA – 60 MIL	-60.0

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

System No.	Deck (Note 1)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 11)	Attach (Note 17)		
S-115.	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 ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, ENRGY 3 FR, ENRGY 3 25 PSI FR, ENRGY 3 C1, ENRGY 3 C1 CGF	Note 2 (round or square plates)	1 per 1.6 ft ²	JM TPO SA – 60 MIL	-60.0
S-116.	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 ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 FR	Note 2 (square plates)	1 per 2.0 ft ²	JM TPO SA – 60 MIL	-67.5
S-117.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2 (square plates)	1 per 1.6 ft ²	JM TPO SA – 60 MIL	-75.0
S-118.	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 ENRGY 3 CGF, ValuTherm CGF	Note 2 (square recessed plates)	1 per 1.0 ft ²	JM TPO SA – 60 MIL	-75.0
S-119.	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 ENRGY 3 CGF, ENRGY 3 FR	Note 2 (round or square plates)	1 per 1.0 ft ²	JM TPO SA – 60 MIL	-82.5
S-120.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	Min. 0.5-inch DensDeck Prime	Note 2 (square plates)	1 per 1.0 ft ²	JM TPO SA – 60 MIL	-82.5
S-121.	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch ENRGY 3 CGF	Note 2 (square plates)	1 per 1.3 ft ²	JM TPO SA – 60 MIL	-90.0
S-122.	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	One or more layers, min. 1.5-inch, any combination, loose laid	Min. 0.5-inch DensDeck Prime	Note 2 (square plates)	1 per 1.0 ft ²	JM TPO SA – 60 MIL	-112.5
S-123.	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2.0-inch ENRGY 3 CGF, ENRGY 3 FR	Note 2 (round or square plates)	1 per 1.0 ft ²	JM TPO SA – 60 MIL	-120.0
S-124.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2 (square plates)	1 per 1.0 ft ²	JM TPO SA – 60 MIL	-150.0*

TABLE 2E: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, HYBRID SYSTEM

System No.	Deck (Note 1)	Base Insulation Layer (Note 3 , Note 13)	Top Insulation Layer			Roof Cover (Note 15)		MDP (psf)
			Type	Fasteners (Note 11)	Attach (Note 17)	Base Ply(s)	Cap Ply	
S-125.	Min. 22 ga., type B, Grade 33 steel	One or more layers, any combination, loose laid	Min. 0.5-inch Retro-Fit Board or DuraBoard, min. 0.75-inch Fesco Board or min. 1.5-inch Fesco Foam or DuraFoam	Note 2	1 per 2.0 ft ²	BP-AA, SBS-AA	JM-TPOFB-HA	-52.5
S-126.	Min. 22 ga., type B, Grade 33 steel	One or more layers, any combination, loose laid	Min. 0.75-inch DuraBoard	Note 2	1 per 1.5 ft ²	BP-AA, SBS-AA	JM-TPOFB-HA	-60.0
S-127.	Min. 22 ga., type B, Grade 33 steel	One or more layers, any combination, loose laid	Min. 0.5-inch Retro-Fit Board or min. 0.75-inch Fesco Board	Note 2	1 per 1.3 ft ²	BP-AA, SBS-AA	JM-TPOFB-HA	-60.0
S-128.	Min. 22 ga., type B, Grade 33 steel	One or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.8 ft ²	BP-AA, SBS-AA, SBS-TA	JM-TPOFB-HA	-60.0

TABLE 2F: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-2: INDUCTION WELDED ROOF COVER

System No.	Deck (Note 1)	Insulation Layer (Note 3, Note 13)	Attachment		Roof Cover (Note 15B)	MDP (psf)
			Fasteners (Note 11)	Spacing		
RHINO BOND SYSTEMS:						
S-129.	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination, preliminarily attached (Note 5)	JM TPO RhinoPlates and High Load Fasteners	18-inch o.c. at rows spaced 60-inch o.c.	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer’s published instructions.	-37.5
S-130.	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination	JM TPO RhinoPlates and High Load Fasteners	1 per 5.3 ft² (6 parts per 4 x 8 ft board)	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer’s published instructions.	-45.0*
S-131.	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination, preliminarily attached (Note 5)	JM TPO RhinoPlates and High Load Fasteners	6-inch o.c. at rows spaced 120-inch o.c.	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer’s published instructions.	-45.0
S-132.	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination, preliminarily attached (Note 5)	JM TPO RhinoPlates and High Load Fasteners	12-inch o.c. at rows spaced 60-inch o.c.	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer’s published instructions.	-52.5
S-133.	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination	JM TPO RhinoPlates and High Load Fasteners	1 per 4.0 ft² (8 parts per 4 x 8 ft board)	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer’s published instructions.	-67.5
S-134.	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination	JM TPO RhinoPlates and High Load Fasteners	1 per 2.7 ft² (12 parts per 4 x 8 ft board) (Note 17)	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer’s published instructions.	-75.0
S-135.	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination	JM TPO RhinoPlates and High Load Fasteners	16-inch o.c. in rows spaced 24-inch o.c.	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer’s published instructions.	-82.5
S-136.	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination	JM TPO RhinoPlates and High Load Fasteners	1 per 2.13 ft² (15 parts per 4 x 8 ft board) (Note 17)	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer’s published instructions.	-90.0

TABLE 2F: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-2: INDUCTION WELDED ROOF COVER

System No.	Deck (Note 1)	Insulation Layer (Note 3 , Note 13)	Attachment		Roof Cover (Note 15B)	MDP (psf)
			Fasteners (Note 11)	Spacing		
S-137.	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch, one or more layers, any combination	JM TPO RhinoPlates and High Load Fasteners	16-inch o.c. in rows spaced 24-inch o.c.	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer's published instructions.	-90.0
S-138.	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination, preliminarily attached (Note 5)	JM TPO RhinoPlates and High Load Fasteners	6-inch o.c. at rows spaced 60-inch o.c.	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer's published instructions.	-105.0
ISOWELD INDUCTION WELDING SYSTEM:						
S-139.	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#12-PH3 or DF-#14-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 5.3 ft ² (6 parts per 4x8 ft board) (Note 17)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-30.0*
S-140.	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 8 ft ² (2 x 4 ft grid, staggered)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-30.0*
S-141.	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 8 ft ² (2 x 4 ft grid, staggered)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-37.5*
S-142.	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#12-PH3 or DF-#14-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 5.3 ft ² (6 parts per 4x8 ft) (Note 17)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-37.5*
S-143.	Min. 22 ga., type B, Grade 40 steel	Min. 1.5-inch, one or more layers, any combination, preliminarily attached (Note 5)	Dekfast DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	12-inch o.c. at rows spaced 60-inch o.c.	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-37.5
S-144.	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 5.3 ft ² (6 parts per 4x8 ft) (Note 17)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-45.0*
S-145.	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch, one or more layers, any combination, preliminarily attached (Note 5)	Dekfast DF-#12-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	12-inch o.c. in rows spaced 60-inch o.c.	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-45.0
S-146.	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 4.0 ft ² (2 x 2-ft grid, staggered)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-45.0
S-147.	Min. 22 ga., type B, Grade 40 steel	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 6 ft ² (2 x 3-ft grid, staggered)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-45.0
S-148.	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#12-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 6 ft ² (2 x 3-ft grid, staggered)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-45.0
S-149.	Min. 22 ga., type B, Grade 40 steel	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 4.0 ft ² (2 x 2-ft grid, staggered)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-60.0
S-150.	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#12-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 4.0 ft ² (2 x 2-ft grid, staggered)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-60.0

TABLE 2F: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-2: INDUCTION WELDED ROOF COVER

System No.	Deck (Note 1)	Insulation Layer (Note 3, Note 13)	Attachment		Roof Cover (Note 15B)	MDP (psf)
			Fasteners (Note 11)	Spacing		
S-151.	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 3.2 ft ² (10 parts per 4x8 ft board) (Note 17)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-75.0
S-152.	Min. 22 ga., type B, Grade 40 steel	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 3 ft ² (1.5 x 2-ft grid, staggered)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-82.5
S-153.	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#12-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 3 ft ² (1.5 x 2-ft grid, staggered)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-82.5
S-154.	Min. 22 ga., type B, Grade 40 steel	Min. 1.5-inch, one or more layers, any combination, preliminarily attached (Note 5)	Dekfast DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	6-inch o.c. in rows spaced 60-inch o.c.	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-90.0
S-155.	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch, one or more layers, any combination, preliminarily attached (Note 5)	Dekfast DF-#12-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	6-inch o.c. in rows spaced 60-inch o.c.	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-97.5
S-156.	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 2.25 ft ² (1.5 x 1.5-ft grid, staggered)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-97.5

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

System No.	Deck (Note 1)	Insulation (Note 3, Note 13)		Roof Cover (Note 15A)			MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners (Note 11)	Attach	
SYSTEMS OVER MIN. GRADE 33 STEEL DECK OR STRUCTURAL CONCRETE (AS NOTED)							
S-157.	Min. 22 ga., type B, Grade 33 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (8 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Plates	12-inch o.c. within 6-inch wide laps spaced 90-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-30.0
S-158.	Min. 22 ga., type B, Grade 33 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (10 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Plates	12-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-30.0
S-159.	Min. 22 ga., type B, Grade 33 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (10 ft sheet)	Extra High Load Fasteners (steel only) or JM Structural Concrete Deck Fasteners (concrete only) with Extra High Load Plates	12-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-37.5
S-160.	Min. 22 ga., type B, Grade 33 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (8 ft sheet)	Extra High Load Fasteners (steel only) or JM Structural Concrete Deck Fasteners (concrete only) with Extra High Load Plates	12-inch o.c. within 6-inch wide laps spaced 90-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-45.0

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

System No.	Deck (Note 1)	Insulation (Note 3, Note 13)		Roof Cover (Note 15A)			MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners (Note 11)	Attach	
S-161.	Min. 22 ga., type B, Grade 33 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (10 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Plates	6-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-45.0
S-162.	Min. 22 ga., type B, Grade 33 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (10 ft sheet)	Extra High Load Fasteners (steel only) or JM Structural Concrete Deck Fasteners (concrete only) with Extra High Load Plates	6-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-52.5
S-163.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (8 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Plates	6-inch o.c. within 6-inch wide laps spaced 90-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-60.0
S-164.	Min. 22 ga., type B, Grade 33 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (8 ft sheet)	Extra High Load Fasteners (steel only) or JM Structural Concrete Deck Fasteners (concrete only) with Extra High Load Plates	6-inch o.c. within 6-inch wide laps spaced 90-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-75.0
S-165.	Min. 22 ga., type B, Grade 33 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (5 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Plates	6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-97.5
SYSTEMS OVER MIN. GRADE 60 STEEL DECK OR STRUCTURAL CONCRETE (AS NOTED)							
S-166.	Min. 22 ga., type B, Grade 60 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (10 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with OMG 2-3/4" Super XHD Barbed Plates	12-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-30.0
S-167.	Min. 22 ga., type B, Grade 60 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (8 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with OMG 2-3/4" Super XHD Barbed Plates	12-inch o.c. within 6-inch wide laps spaced 90-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-37.5
S-168.	Min. 22 ga., type B, Grade 60 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (10 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Plates	6-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-60.0
S-169.	Min. 22 ga., type B, Grade 60 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (8 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Plates	6-inch o.c. within 6-inch wide laps spaced 90-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-75.0
SYSTEMS OVER MIN. GRADE 80 STEEL DECK OR STRUCTURAL CONCRETE (AS NOTED)							
S-170.	Min. 22 ga., type B, Grade 80 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (8 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Plates	12-inch o.c. within 6-inch wide laps spaced 90-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-37.5
S-171.	Min. 22 ga., type B, Grade 80 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (10 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Plates	12-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-37.5

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

System No.	Deck (Note 1)	Insulation (Note 3, Note 13)		Roof Cover (Note 15A)			MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners (Note 11)	Attach	
S-172.	Min. 22 ga., type B, Grade 80 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (8 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with OMG 2-3/4" Super XHD Barbed Plates	12-inch o.c. within 6-inch wide laps spaced 90-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-45.0
S-173.	Min. 22 ga., type B, Grade 80 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (8 ft sheet)	Extra High Load Fasteners (steel only) or JM Structural Concrete Deck Fasteners (concrete only) with Extra High Load Plates	12-inch o.c. within 6-inch wide laps spaced 90-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-45.0
S-174.	Min. 22 ga., type B, Grade 80 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (10 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Plates	6-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-45.0
S-175.	Min. 22 ga., type B, Grade 80 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (10 ft sheet)	Extra High Load Fasteners (steel only) or JM Structural Concrete Deck Fasteners (concrete only) with Extra High Load Plates	12-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-45.0
S-176.	Min. 22 ga., type B, Grade 80 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (10 ft sheet)	Extra High Load Fasteners (steel only) or JM Structural Concrete Deck Fasteners (concrete only) with Extra High Load Plates	6-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-52.5
S-177.	Min. 22 ga., type B, Grade 80 steel or min. 3,000 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80 (8 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Plates	6-inch o.c. within 6-inch wide laps spaced 90-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	-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 (RPS STRIPS)

System No.	Deck (Note 1)	Insulation		Roof Cover (Note 15A)			MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners (Note 11)	Attachment	
S-178.	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80	JM High Load Plates and High Load Fasteners	JM TPO 10" RPS 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 Primer 240 or ADCO SPC-3 Primer at the RPS location, then rolling into place in accordance with JM requirements.	-52.5

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

 REFER TO [TABLE 3B](#) FOR VAPOR BARRIER OPTIONS

System No.	Deck (Note 1)	Prime	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
			Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
JM TPO APPLICATIONS:								
C-1	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	JM-OSFA	(Optional) Min. 0.25-inch DensDeck or Invinsa Roof Board	JM-OSFA	JM-TPO-MBA	-75.0
C-2	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	JM-OSFA	(Optional) Min. 0.25-inch Invinsa Roof Board	JM-OSFA	JM-TPO-WBMA	-75.0
C-3	Min. 2,500 psi structural concrete	None	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-OSFA	0.5-inch SeparatoR CGF or SeparatoR FR	JM-OSFA	JM-TPO-WBMA	-195.0
C-4	Min. 2,500 psi structural concrete	None	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-OSFA	0.5-inch SeparatoR CGF or SeparatoR FR	JM-OSFA	JM-TPO-LVOC	-217.0
C-5	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	JM-OSFA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM-OSFA	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-247.5
C-6	Min. 2,500 psi structural concrete	None	Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-OSFA	0.5-inch SeparatoR CGF or SeparatoR FR	JM-OSFA	JM-TPO-MBA	-247.5
C-7	Min. 2,500 psi structural concrete	None	0.5-inch SeparatoR CGF or SeparatoR FR	JM-OSFA	None	N/A	JM-TPO-MBA	-322.5
C-8	Min. 2,500 psi structural concrete	None	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-RSUA	0.5-inch SeparatoR CGF or SeparatoR FR	JM-RSUA	JM-TPO-WBMA	-195.0
C-9	Min. 2,500 psi structural concrete	None	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-RSUA	0.5-inch SeparatoR CGF or SeparatoR FR	JM-RSUA	JM-TPO-LVOC	-217.0
C-10	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	JM-RSUA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM-RSUA	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-247.5
C-11	Min. 2,500 psi structural concrete	None	Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-RSUA	0.5-inch SeparatoR CGF or SeparatoR FR	JM-RSUA	JM-TPO-MBA	-247.5

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

System No.	Deck (Note 1)	Prime	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
			Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
C-12	Min. 2,500 psi structural concrete	None	0.5-inch SeparatoR CGF or SeparatoR FR	JM-RSUA	None	N/A	JM-TPO-MBA	-322.5
C-13	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	(Optional) Min. 0.25-inch DensDeck or Invinsa Roof Board	UIA-TWO-PART	JM-TPO-MBA	-105.0
C-14	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	(Optional) Min. 0.25-inch Invinsa Roof Board	UIA-TWO-PART	JM-TPO-WBMA	-105.0
C-15	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	Min. 0.25-inch Invinsa Roof Board	UIA-TWO-PART	JM-TPO-MBA OR JM-TPO-WBMA	-105.0
C-16	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	Min. 0.25-inch Invinsa Roof Board	MBR-BA	JM-TPO-MBA OR JM-TPO-WBMA	-105.0
C-17	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	Min. 0.25-inch Invinsa Roof Board	MBR-BA (full coverage at 1.5 gal/sq)	JM-TPO-MBA OR JM-TPO-WBMA	-112.5
C-18	Min. 2,500 psi structural concrete	None	One or more layers, min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3, 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	UIA-TWO-PART	JM-TPO-MBA	-120.0
C-19	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	(Optional) Additional layers of base insulation	UIA-TWO-PART	JM-TPO-LVOC	-172.5
C-20	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	(Optional) Additional layers of base insulation	UIA-TWO-PART	JM-TPO-WBMA	-195.0
C-21	Min. 2,500 psi structural concrete	None	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	UIA-TWO-PART	0.5-inch SeparatoR CGF or SeparatoR FR	UIA-TWO-PART	JM-TPO-WBMA	-195.0
C-22	Min. 2,500 psi structural concrete	None	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	UIA-TWO-PART	0.5-inch SeparatoR CGF or SeparatoR FR	UIA-TWO-PART	JM-TPO-LVOC	-217.0

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

System No.	Deck (Note 1)	Prime	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
			Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
C-23	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-247.5
C-24	Min. 2,500 psi structural concrete	None	Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	UIA-TWO-PART	0.5-inch SeparatoR CGF or SeparatoR FR	UIA-TWO-PART	JM-TPO-MBA	-247.5
C-25	Min. 2,500 psi structural concrete	None	Min. 0.25-inch Invinsa Roof Board or Invinsa Plus	UIA-TWO-PART	None	N/A	JM-TPO-WBMA	-255.0
C-26	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3.E, ENRGY 3.E 25 PSI ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF, ValuTherm AGF, ENRGY 3 25 PSI AGF, ValuTherm 25 PSI AGF, ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, ENRGY 3 FR, ENRGY 3 25 PSI FR	UIA-TWO-PART	(Optional) Additional layers of base insulation	UIA-TWO-PART	JM-TPO-MBA	-322.5
C-27	Min. 2,500 psi structural concrete	None	0.5-inch SeparatoR CGF or SeparatoR FR	UIA-TWO-PART	None	N/A	JM-TPO-MBA	-322.5
C-28	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	(Optional) Additional layers of base insulation	UIA-TWO-PART	JM-TPO-LVOC	-330.0
C-29	Min. 2,500 psi structural concrete	None	(Optional) Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	Min. 1.5-inch Invinsa Foam	UIA-TWO-PART	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-330.0
C-30	Min. 2,500 psi structural concrete	None	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	None	N/A	JM-TPO-LVOC	-360.0
C-31	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 25 PSI, ValuTherm	UIA-TWO-PART	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	UIA-TWO-PART	JM-TPO-MBA	-390.0
C-32	Min. 2,500 psi structural concrete	None	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	None	N/A	JM-TPO-WBMA	-465.0
C-33	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Polysat CRA	Min. 0.25-inch DensDeck	Polysat CRA	JM-TPO-MBA	-105.0

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

System No.	Deck (Note 1)	Prime	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
			Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
C-34	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Polysat CRA	(Optional) Min. 0.25-inch DensDeck	MBR-BA	JM-TPO-MBA	-105.0
C-35	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Polysat CRA	Min. 0.25-inch Invinsa Roof Board	Polysat CRA	JM-TPO-MBA OR JM-TPO-WBMA	-112.5
C-36	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Polysat CRA	Min. 0.25-inch Invinsa Roof Board	MBR-BA (full coverage at 1.5 gal/sq)	JM-TPO-MBA OR JM-TPO-WBMA	-112.5
C-37	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Polysat CRA	(Optional) Additional layers of base insulation	Polysat CRA	JM-TPO-LVOC	-172.5
C-38	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Polysat CRA	(Optional) Additional layers of base insulation	Polysat CRA	JM-TPO-MBA or JM-TPO-LVOC	-217.5
C-39	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Polysat CRA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Polysat CRA	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-247.5
JM TPO FB APPLICATIONS:								
C-40	Min. 2,500 psi structural concrete	ASTM D41	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	hot asphalt	(Optional) Additional layers of base insulation	hot asphalt	JM-TPOFB-WBMA	-105.0
C-41	Min. 2,500 psi structural concrete	ASTM D41	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	hot asphalt	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	hot asphalt	JM-TPOFB-WBMA	-105.0
C-42	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	JM-OSFA	(Optional) Additional layers of base insulation	JM-OSFA	JM-TPOFB-WBMA	-105.0
C-43	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	JM-OSFA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM-OSFA	JM-TPOFB-WBMA	-105.0

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

System No.	Deck (Note 1)	Prime	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
			Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
C-44	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3.E, ENRGY 3.E 25 PSI, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF, ValuTherm AGF, ENRGY 3 25 PSI AGF, ValuTherm 25 PSI AGF, ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, ENRGY 3 FR, ENRGY 3 25 PSI FR	JM-OSFA	(Optional) Additional layers of base insulation	JM-OSFA	JM-TPOFB-RSUA or JM-TPOFB-TPUIA, 4-inch o.c.	-112.5
C-45	Min. 2,500 psi structural concrete	None	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-OSFA	0.5-inch SeparatoR CGF or SeparatoR FR	JM-OSFA	JM-TPOFB-RSUA, 4-inch o.c.	-112.5
C-46	Min. 2,500 psi structural concrete	None	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-OSFA	0.5-inch SeparatoR CGF or SeparatoR FR	JM-OSFA	JM-TPOFB-WBMA	-187.5
C-47	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ValuTherm	JM-RSUA	(Optional) Additional layers of base insulation	JM-RSUA	JM-TPOFB-RSUA, 12-inch o.c.	-67.5
C-48	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	JM-RSUA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM-RSUA	JM-TPOFB-RSUA, 12-inch o.c.	-67.5
C-49	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3.E, ENRGY 3.E 25 PSI, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF, ValuTherm AGF, ENRGY 3 25 PSI AGF, ValuTherm 25 PSI AGF, ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, ENRGY 3 FR, ENRGY 3 25 PSI FR	JM-RSUA	(Optional) Additional layers of base insulation	JM-RSUA	JM-TPOFB-RSUA or JM-TPOFB-TPUIA, 4-inch o.c.	-112.5
C-50	Min. 2,500 psi structural concrete	None	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-RSUA	0.5-inch SeparatoR CGF or SeparatoR FR	JM-RSUA	JM-TPOFB-RSUA, 4-inch o.c.	-112.5
C-51	Min. 2,500 psi structural concrete	None	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-RSUA	0.5-inch SeparatoR CGF or SeparatoR FR	JM-RSUA	JM-TPOFB-WBMA	-187.5
C-52	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ValuTherm	UIA-TWO-PART	(Optional) Additional layers of base insulation	UIA-TWO-PART	JM-TPOFB-RSUA, 12-inch o.c.	-67.5
C-53	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM-TPOFB-RSUA, 12-inch o.c.	-67.5

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

 REFER TO [TABLE 3B](#) FOR VAPOR BARRIER OPTIONS

System No.	Deck (Note 1)	Prime	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
			Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
C-54	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	(Optional) Additional layers of base insulation	UIA-TWO-PART	JM-TPOFB-WBMA	-105.0
C-55	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM-TPOFB-WBMA	-105.0
C-56	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3.E, ENRGY 3.E 25 PSI, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, ENRGY 3 AGF, ValuTherm AGF, ENRGY 3 25 PSI AGF, ValuTherm 25 PSI AGF, ENRGY 3 CGF, ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, ENRGY 3 FR, ENRGY 3 25 PSI FR	UIA-TWO-PART	(Optional) Additional layers of base insulation	UIA-TWO-PART	JM-TPOFB-RSUA or JM-TPOFB-TPUIA, 4-inch o.c.	-112.5
C-57	Min. 2,500 psi structural concrete	None	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	UIA-TWO-PART	0.5-inch SeparatoR CGF or SeparatoR FR	UIA-TWO-PART	JM-TPOFB-RSUA, 4-inch o.c.	-112.5
C-58	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	(Optional) Additional layers of base insulation	UIA-TWO-PART	JM-TPOFB-WBMA	-187.5
C-59	Min. 2,500 psi structural concrete	None	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	UIA-TWO-PART	0.5-inch SeparatoR CGF or SeparatoR FR	UIA-TWO-PART	JM-TPOFB-WBMA	-187.5
C-60	Min. 2,500 psi structural concrete	None	Min. 0.25-inch Invinsa Roof Board or Invinsa Plus	UIA-TWO-PART	None	N/A	JM-TPOFB-WBMA	-277.5
C-61	Min. 2,500 psi structural concrete	None	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	None	N/A	JM-TPOFB-WBMA	-345.0
C-62	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Polysset CRA	(Optional) Additional layers of base insulation	Polysset CRA	JM-TPOFB-WBMA	-105.0
C-63	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Polysset CRA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Polysset CRA	JM-TPOFB-WBMA	-105.0
JM TPO FB 150 OR 175 APPLICATIONS:								

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

 REFER TO [TABLE 3B](#) FOR VAPOR BARRIER OPTIONS

System No.	Deck (Note 1)	Prime	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
			Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
C-64	Min. 2,500 psi structural concrete	None	One or more layers, min. 1.5-inch ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	UIA-TWO-PART	JM-TPOFB-HA	-120.0
C-65	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 25 PSI, ValuTherm	UIA-TWO-PART	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	UIA-TWO-PART	JM-TPOFB-HA	-390.0
JM TPO SA APPLICATIONS:								
C-66	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	JM-OSFA	(Optional) Min. 0.25-inch or Invinsa Roof Board	JM-OSFA	JM TPO SA – 60 MIL	-75.0
C-67	Min. 2,500 psi structural concrete	None	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-OSFA	0.5-inch SeparatoR CGF or SeparatoR FR	JM-OSFA	JM TPO SA – 60 MIL	-120.0
C-68	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	JM-OSFA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM-OSFA	JM TPO SA – 60 MIL	-247.5
C-69	Min. 2,500 psi structural concrete	None	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-RSUA	0.5-inch SeparatoR CGF or SeparatoR FR	JM-RSUA	JM TPO SA – 60 MIL	-120.0
C-70	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	JM-RSUA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM-RSUA	JM TPO SA – 60 MIL	-247.5
C-71	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	(Optional) Additional layers of base insulation and/or Min. 0.25-inch Invinsa Roof Board	UIA-TWO-PART	JM TPO SA – 60 MIL	-105.0
C-72	Min. 2,500 psi structural concrete	None	Min. 0.25-inch Invinsa Roof Board or Invinsa Plus	UIA-TWO-PART	None	N/A	JM TPO SA – 60 MIL	-105.0
C-73	Min. 2,500 psi structural concrete	None	(Optional) Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	Min. 1.5-inch Invinsa Foam	UIA-TWO-PART	JM TPO SA – 60 MIL	-105.0
C-74	Min. 2,500 psi structural concrete	None	One or more layers, min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, JM ISO 3, 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	UIA-TWO-PART	JM TPO SA – 60 MIL	-120.0

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

 REFER TO [TABLE 3B](#) FOR VAPOR BARRIER OPTIONS

System No.	Deck (Note 1)	Prime	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
			Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
C-75	Min. 2,500 psi structural concrete	None	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	UIA-TWO-PART	0.5-inch SeparatoR CGF or SeparatoR FR	UIA-TWO-PART	JM TPO SA – 60 MIL	-120.0
C-76	Min. 2,500 psi structural concrete	None	(Optional) Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM TPO SA – 60 MIL	-247.5
C-77	Min. 2,500 psi structural concrete	None	Min. 0.25-inch DensDeck Prime	UIA-TWO-PART	None	N/A	JM TPO SA – 60 MIL	-330.0
C-78	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 25 PSI, ValuTherm	UIA-TWO-PART	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	UIA-TWO-PART	JM TPO SA – 60 MIL	-390.0
C-79	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Polyset CRA	Min. 0.25-inch Invinsa Roof Board	Polyset CRA	JM TPO SA – 60 MIL	-105.0
C-80	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Polyset CRA	(Optional) Additional layers of base insulation	Polyset CRA	JM TPO SA – 60 MIL	-105.0
C-81	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Polyset CRA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Polyset CRA	JM TPO SA – 60 MIL	-105.0

TABLE 3B: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, HYBRID SYSTEM

REFER TO NOTE 16 FOR VAPOR BARRIER OPTIONS

System No.	Deck (Note 1)	Primer	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf)
			Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Base Ply(s)	Cap Ply	
C-82	Min. 2,500 psi structural concrete	ASTM D41	Min. 0.75-inch FescoBoard or DuraBoard (homogeneous)	hot asphalt	(Optional) Min. 0.75-inch FescoBoard or DuraBoard (homogeneous)	hot asphalt	BP-AA, SBS-AA	JM-TPOFB-HA	-167.5
C-83	Min. 2,500 psi structural concrete	ASTM D41	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	hot asphalt	Min. 0.5-inch Retro-Fit Board or min. 0.75-inch Fesco Board or DuraBoard	hot asphalt	BP-AA, SBS-AA	JM-TPOFB-HA	-217.5
C-84	Min. 2,500 psi structural concrete	ASTM D41	(Optional) Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	hot asphalt	Min. 1.5-inch Fesco Foam or DuraFoam	hot asphalt	BP-AA, SBS-AA	JM-TPOFB-HA	-217.5
C-85	Min. 2,500 psi structural concrete	ASTM D41	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	hot asphalt	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	hot asphalt	BP-AA, SBS-AA, SBS-TA	JM-TPOFB-HA	-217.5
C-86	Min. 2,500 psi structural concrete	None	(Optional) Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	UIA	Min. 0.75-inch FescoBoard (homogeneous)	UIA or MBR-BA, 12-inch o.c.	BP-AA, SBS-AA	JM-TPOFB-HA	-112.5
C-87	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	JM-RSUA	Min. 0.5-inch Retro-Fit Board	JM-RSUA	BP-AA, SBS-AA	JM-TPOFB-HA	-105.0
C-88	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	JM-RSUA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM-RSUA	BP-AA, SBS-AA	JM-TPOFB-HA	-217.5
C-89	Min. 2,500 psi structural concrete	None	(Optional) Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	UIA-TWO-PART	Min. 0.75-inch FescoBoard (homogeneous)	UIA-TWO-PART	BP-AA, SBS-AA	JM-TPOFB-HA	-217.5
C-90	Min. 2,500 psi structural concrete	None	(Optional) Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	UIA-TWO-PART	Min. 0.5-inch Retro-Fit Board or DuraBoard	UIA-TWO-PART	BP-AA, SBS-AA	JM-TPOFB-HA	-217.5
C-91	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	UIA-TWO-PART	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	BP-AA, SBS-AA	JM-TPOFB-HA	-217.5
C-92	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	Polysat CRA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Polysat CRA	BP-AA, SBS-AA, SBS-TA	JM-TPOFB-HA	-217.5

TABLE 3C: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-2: INDUCTION WELDED ROOF COVER

System No.	Deck (Note 1)	Insulation Layer (Note 3 , Note 13)	Attachment		Roof Cover (Note 15B)	MDP (psf)
			Fasteners (Note 11)	Spacing		
RHINO BOND SYSTEMS:						
C-93	Min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination, preliminarily attached (Note 5)	JM TPO RhinoPlates and High Load Fasteners	18-inch o.c. at rows spaced 60-inch o.c.	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer’s published instructions. Laps sealed with 1.5-inch heat weld	-37.5
C-94	Min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	JM TPO RhinoPlates and High Load Fasteners	1 per 5.3 ft² (6 parts per 4 x 8 ft board) (Note 17)	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer’s published instructions. Laps sealed with 1.5-inch heat weld.	-45.0*
C-95	Min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination, preliminarily attached (Note 5)	JM TPO RhinoPlates and High Load Fasteners	6-inch o.c. at rows spaced 120-inch o.c.	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer’s published instructions. Laps sealed with 1.5-inch heat weld.	-45.0
C-96	Min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination, preliminarily attached (Note 5)	JM TPO RhinoPlates and High Load Fasteners	12-inch o.c. at rows spaced 60-inch o.c.	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer’s published instructions. Laps sealed with 1.5-inch heat weld.	-52.5
C-97	Min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	JM TPO RhinoPlates and High Load Fasteners	1 per 4.0 ft² (8 parts per 4 x 8 ft board)	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer’s published instructions. Laps sealed with 1.5-inch heat weld.	-67.5
C-98	Min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	JM TPO RhinoPlates and High Load Fasteners	1 per 2.7 ft² (12 parts per 4 x 8 ft board) (Note 17)	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer’s published instructions. Laps sealed with 1.5-inch heat weld.	-75.0
C-99	Min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	JM TPO RhinoPlates and High Load Fasteners	1 per 2.13 ft² (15 parts per 4 x 8 ft board) (Note 17)	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer’s published instructions. Laps sealed with 1.5-inch heat weld.	-90.0
C-100	Min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination, preliminarily attached (Note 5)	JM TPO RhinoPlates and High Load Fasteners	6-inch o.c. at rows spaced 60-inch o.c.	JM TPO 60, 72 or 80 induction welded using RhinoBond Portable Bonding Tool, per manufacturer’s published instructions. Laps sealed with 1.5-inch heat weld.	-105.0
ISOWELD INDUCTION WELDING SYSTEM:						
C-101	Min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#14-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 5.3 ft² (6 parts per 4x8 ft board) (Note 17)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-37.5*
C-102	Min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination, preliminarily attached (Note 5)	Dekfast DF-#14-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	12-inch o.c. at rows spaced 60-inch o.c.	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-37.5
C-103	Min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 8 ft² (2 x 4 ft grid, staggered))	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-45.0*

TABLE 3C: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-2: INDUCTION WELDED ROOF COVER

System No.	Deck (Note 1)	Insulation Layer (Note 3 , Note 13)	Attachment		Roof Cover (Note 15B)	MDP (psf)
			Fasteners (Note 11)	Spacing		
C-104	Min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination, preliminarily attached (Note 5)	Dekfast DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	12-inch o.c. in rows spaced 60-inch o.c.	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-45.0
C-105	Min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#14-PH3 or DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 6 ft ² (2 x 3-ft grid, staggered)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-45.0
C-106	Min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#14-PH3 or DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 4.0 ft ² (2 x 2-ft grid, staggered)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-60.0
C-107	Min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#14-PH3 or DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 3 ft ² (1.5 x 2-ft grid, staggered)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-82.5
C-108	Min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination, preliminarily attached (Note 5)	Dekfast DF-#14-PH3 or DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	6-inch o.c. in rows 60-inch o.c.	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-90.0
C-109	Min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Dekfast DF-#15-PH3 with <i>isoweld</i> F1-P-6.8-TPO Plates	1 per 2.25 ft ² (1.5 x 1.5-ft grid, staggered)	JM TPO 60, 72 or 80 bonded to <i>isoweld</i> F1-P-6.8-TPO Plates with SFS <i>isoweld</i> 3000 stand-up tool.	-97.5

TABLE 4A: DECK WITH LIGHTWEIGHT CONCRETE – REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Lightweight Concrete (Note 14)	Anchor Sheet			Vapor Barrier (Note 15)	Insulation		Roof Cover (Note 15)		MDP (psf)
			Type	Fastener (Note 11)	Attach		Type	Attach (Notes 6,7,8)	Base Ply(s)	Cap Ply	
PRE-EXISTENT CELLULAR LWC:											
JM TPO APPLICATIONS:											
LWC-1.	Min. 22 ga, type BV, Grade 40 steel or structural concrete	Pre-existent, min. 340 psi, min. 2-inch thick cellular LWC.	DynaBase PR	Trufast Versa-Fast Fastener with Versa-Fast Plate; min. one (1) fastener per plate; min. 2.25-inch embedment. Minimum withdrawal resistance of 88 lbf per Note 11 .	12-inch o.c. at the 4-inch laps and 12-inch o.c. at two (2) equally spaced, staggered center rows	(Optional) SBS-AA or SBS-TA	One or more layer(s), min. 2-inch ENRGY 3 followed by optional min. 0.25-inch DensDeck Prime, DEXcell FA Glass Mat Roof Board or SECUROCK Gypsum-Fiber Roof Board	JM-RSUA, JM-OSFA or UIA-TWO-PART	None	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-45.0
LWC-2.	Min. 22 ga, type BV, Grade 40 steel or structural concrete	Pre-existent, min. 340 psi, min. 2-inch thick cellular LWC.	PermaPly 28	Trufast Twin Loc-Nail Fastener, 1.8-in. Minimum withdrawal resistance of 73 lbf per Note 11 .	6-inch o.c. at the 4-inch laps and 6-inch o.c. at two (2) equally spaced center rows	(Optional) SBS-AA or SBS-TA	Min. 0.5-inch DensDeck Prime or DEXcell FA Glass Mat Roof Board	JM-RSUA or JM-OSFA, ribbons atop fastener rows (~10.7-inch o.c.)	None	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-82.5
LWC-3.	Min. 22 ga, type BV, Grade 40 steel or structural concrete	Pre-existent, min. 340 psi, min. 2-inch thick cellular LWC.	PermaPly 28	Trufast Twin Loc-Nail Fastener, 1.8-in. Minimum withdrawal resistance of 73 lbf per Note 11 .	6-inch o.c. at the 4-inch laps and 6-inch o.c. at two (2) equally spaced center rows	(Optional) SBS-AA or SBS-TA	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	JM-RSUA, JM-OSFA or UIA-TWO-PART, ribbons atop fastener rows (~10.7-inch o.c.)	None	JM-TPO-MBA, JM-TPO-LVOC or JM-TPO-WBMA	-82.5
JM TPO FB APPLICATIONS:											
LWC-4.	Min. 22 ga, type BV, Grade 40 steel or structural concrete	Pre-existent, min. 340 psi, min. 2-inch thick cellular LWC.	DynaBase PR	Trufast Versa-Fast Fastener with Versa-Fast Plate; min. one (1) fastener per plate; min. 2.25-inch embedment. Minimum withdrawal resistance of 88 lbf per Note 11 .	12-inch o.c. at the 4-inch laps and 12-inch o.c. at two (2) equally spaced, staggered center rows	(Optional) SBS-AA or SBS-TA	One or more layer(s), min. 2-inch ENRGY 3 followed by optional min. 0.25-inch DensDeck Prime, DEXcell FA Glass Mat Roof Board or SECUROCK Gypsum-Fiber Roof Board	JM-RSUA, JM-OSFA or UIA-TWO-PART	None	JM-TPOFB-RSUA (12" o.c.), JM-TPOFB-TPUIA (12" o.c.), JM-TPOFB-TPUIA-C or JM-TPOFB-WBMA	-45.0
LWC-5.	Min. 22 ga, type BV, Grade 40 steel or structural concrete	Pre-existent, min. 340 psi, min. 2-inch thick cellular LWC.	PermaPly 28	Trufast Twin Loc-Nail Fastener, 1.8-in. Minimum withdrawal resistance of 73 lbf per Note 11 .	6-inch o.c. at the 4-inch laps and 6-inch o.c. at two (2) equally spaced center rows	(Optional) SBS-AA or SBS-TA	Min. 0.5-inch DensDeck Prime or DEXcell FA Glass Mat Roof Board	JM-RSUA or JM-OSFA, ribbons atop fastener rows (~10.7-inch o.c.)	None	JM-TPOFB-RSUA (4" o.c.), JM-TPOFB-TPUIA (4" o.c.), JM-TPOFB-TPUIA-C or JM-TPOFB-WBMA	-82.5
LWC-6.	Min. 22 ga, type BV, Grade 40 steel or structural concrete	Pre-existent, min. 340 psi, min. 2-inch thick cellular LWC.	PermaPly 28	Trufast Twin Loc-Nail Fastener, 1.8-in. Minimum withdrawal resistance of 73 lbf per Note 11 .	6-inch o.c. at the 4-inch laps and 6-inch o.c. at two (2) equally spaced center rows	(Optional) SBS-AA or SBS-TA	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	JM-RSUA, JM-OSFA or UIA-TWO-PART, ribbons atop fastener rows (~10.7-inch o.c.)	None	JM-TPOFB-RSUA (4" o.c.), JM-TPOFB-TPUIA (4" o.c.), JM-TPOFB-TPUIA-C or JM-TPOFB-WBMA	-82.5

**TABLE 4B: DECK WITH LIGHTWEIGHT CONCRETE – REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Lightweight Concrete (Note 14)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer			Roof Cover (Note 15)		MDP (psf)
				Type	Fastener (Note 11)	Attach (Note 17)	Base Ply(s)	Cap Ply	
PRE-EXISTENT CELLULAR LWC:									
JM TPO APPLICATIONS:									
LWC-7.	Min. 22 ga, type BV, Grade 40 steel or structural concrete	Pre-existent, min. 340 psi, min. 2-inch thick cellular LWC.	(Optional) One or more layers, any combination, loose laid	Min. 2-inch ENRGY 3	Trufast Versa-Fast Fastener with Versa-Fast Plate; min. two (2) fasteners per plate; min. 2.25-inch embedment. Minimum withdrawal resistance of 240 lbf per Note 11 .	1 per 2.0 ft²	None	JM-TPO-LVOC or JM-TPO-MBA	-60.0
JM TPO FB APPLICATIONS:									
LWC-8.	Min. 22 ga, type BV, Grade 40 steel or structural concrete	Pre-existent, min. 340 psi, min. 2-inch thick cellular LWC.	(Optional) One or more layers, any combination, loose laid	Min. 2-inch ENRGY 3	Trufast Versa-Fast Fastener with Versa-Fast Plate; min. two (2) fasteners per plate; min. 2.25-inch embedment. Minimum withdrawal resistance of 240 lbf per Note 11 .	1 per 2.0 ft²	None	JM-TPOFB-RSUA (4" o.c.), JM-TPOFB-TPUIA (4" o.c.) or JM-TPOFB-TPUIA-C	-60.0

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

System No.	Deck (Note 1)	Lightweight Concrete (Note 14)	Roof Cover (Note 15)	MDP (psf)
CELCORE (FL2037):				
LWC-1	Min. 22 ga., Type BV, Grade 33 vented steel at max 6 ft spans	Min. 380 psi, min. 2-inch thick Celcore Cellular Concrete with optional 1" thick, 1.0 pcf EPS holey board. Treated with Celcore Curing Compound	JM-TPOFB-RSUA, 12-inch o.c.	-67.5
CONCRECEL (FL5584 & FL10500):				
LWC-2	Min. 22 ga., Type BV, Grade 33 vented steel at max 6 ft spans	Min. 370 psi, min. 2-inch thick Concrecel Concrete with optional 1" thick, 1.0 pcf EPS holey board. Treated with Concrecel Curing Compound.	JM-TPOFB-RSUA, 12-inch o.c.	-67.5
ELASTIZELL (FL4994):				
LWC-3	Min. 22 ga., Type BV, Grade 33 vented steel at max 6 ft spans	Min. 210 psi, min. 2-inch thick Elastizell Range II Lightweight Insulating Concrete with optional 1" thick, 1.0 pcf EPS holey board.	JM-TPOFB-RSUA, 12-inch o.c.	-67.5

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

System No.	Deck (Note 1)	Lightweight Concrete (Note 14)	Roof Cover (Note 15)	MDP (psf)
CELCORE (FL2037):				
LWC-4	Min. 2,500 psi structural concrete	Min. 380 psi, min. 2-inch thick Celcore Cellular Concrete with optional 1" thick, 1.0 pcf EPS holey board. Treated with Celcore Curing Compound	JM-TPOFB-RSUA, 12-inch o.c.	-67.5
LWC-5	Min. 2,500 psi structural concrete	Min. 380 psi, min. 2-inch thick Celcore Cellular Concrete with optional 1" thick, 1.0 pcf EPS holey board. Treated with Celcore Curing Compound	JM-TPOFB-RSUA, 4-inch o.c.	-290.0
LWC-6	Min. 2,500 psi structural concrete	Min. 350 psi, min. 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture, with optional 1" thick, 1.0 pcf EPS holey board and surfacing of Celcore PVA Curing Compound.	JM-TPO-LVOC	-367.5
CONCRECEL (FL5584 & FL10500):				
LWC-7	Min. 2,500 psi structural concrete	Min. 370 psi, min. 2-inch thick Concrecel Concrete with optional 1" thick, 1.0 pcf EPS holey board. Treated with Concrecel Curing Compound.	JM-TPOFB-RSUA, 12-inch o.c.	-67.5
LWC-8	Min. 2,500 psi structural concrete	Min. 379 psi, min. 2-inch thick Concrecel Concrete, with optional 1" thick, 1.0 pcf EPS holey board and surfacing of Concrecel Curing Compound.	JM-TPO-LVOC	-285.0
LWC-9	Min. 2,500 psi structural concrete	Min. 370 psi, min. 2-inch thick Concrecel Concrete with optional 1" thick, 1.0 pcf EPS holey board. Treated with Concrecel Curing Compound.	JM-TPOFB-RSUA, 4-inch o.c.	-290.0
ELASTIZELL (FL4994):				
LWC-10	Min. 2,500 psi structural concrete	Min. 210 psi, min. 2-inch thick Elastizell Range II Lightweight Insulating Concrete with optional 1" thick, 1.0 pcf EPS holey board.	JM-TPOFB-RSUA, 12-inch o.c.	-67.5
LWC-11	Min. 2,500 psi structural concrete	Min. 210 psi, min. 2-inch thick Elastizell Range II Lightweight Insulating Concrete with optional 1" thick, 1.0 pcf EPS holey board.	JM-TPOFB-RSUA, 4-inch o.c.	-290.0

TABLE 4E: LIGHTWEIGHT CONCRETE DECKS OVER STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE F: VAPOR BARRIER TO DECK, LWC TO VAPOR BARRIER, BONDED ROOF COVER

System No.	Deck (Note 1)	Vapor Barrier	Lightweight Concrete (Note 14)	Roof Cover (Note 15)	MDP (psf)
CELCORE (FL2037):					
LWC-12	Min. 2,500 psi structural concrete primed with ASTM D41 primer	DynaBase HW, torch-applied	Min. 380 psi, min. 2-inch thick Celcore Cellular Concrete with optional 1" thick, 1.0 pcf EPS holey board. Treated with Celcore Curing Compound	JM-TPOFB-RSUA, 12-inch o.c.	-67.5
LWC-13	Min. 2,500 psi structural concrete primed with ASTM D41 primer	DynaBase HW, torch-applied	Min. 380 psi, min. 2-inch thick Celcore Cellular Concrete with optional 1" thick, 1.0 pcf EPS holey board. Treated with Celcore Curing Compound	JM-TPOFB-RSUA, 4-inch o.c.	-262.5
ELASTIZELL (FL4994):					
LWC-14	Min. 2,500 psi structural concrete primed with ASTM D41 primer	DynaBase HW, torch-applied	Min. 210 psi, min. 2-inch thick Elastizell Range II Lightweight Insulating Concrete with optional 1" thick, 1.0 pcf EPS holey board.	JM-TPOFB-RSUA, 12-inch o.c.	-67.5
LWC-15	Min. 2,500 psi structural concrete primed with ASTM D41 primer	DynaBase HW, torch-applied	Min. 210 psi, min. 2-inch thick Elastizell Range II Lightweight Insulating Concrete with optional 1" thick, 1.0 pcf EPS holey board.	JM-TPOFB-RSUA, 4-inch o.c.	-85.0

TABLE 5A: GYPSUM DECKS - REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Notes 1 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
JM TPO APPLICATIONS:							
G-1.	Existing gypsum deck	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	(Optional) Min. 0.25-inch DensDeck or Invinsa Roof Board or min. 1.5-inch Invinsa Foam	UIA-TWO-PART	JM-TPO-MBA	-105.0
G-2.	Existing gypsum deck	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	(Optional) Min. 0.25-inch Invinsa Roof Board or min. 1.5-inch Invinsa Foam	UIA-TWO-PART	JM-TPO-WBMA	-105.0
G-3.	Existing gypsum deck	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	(Optional) Additional layers of base insulation	UIA-TWO-PART	JM-TPO-MBA or JM-TPO-LVOC	-112.5
G-4.	Existing gypsum deck	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Polysset CRA	(Optional) Min. 0.25-inch DensDeck	Polysset CRA	JM-TPO-MBA	-105.0
G-5.	Existing gypsum deck	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Polysset CRA	(Optional) Additional layers of base insulation	Polysset CRA	JM-TPO-MBA or JM-TPO-LVOC	-217.5
JM TPO FB APPLICATIONS:							
G-6.	Existing gypsum deck	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	(Optional) Additional layers of base insulation or Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM-TPOFB-WBMA	-105.0
G-7.	Existing gypsum deck	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Polysset CRA	(Optional) Additional layers of base insulation or Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Polysset CRA	JM-TPOFB-WBMA	-105.0

TABLE 6A: RECOVER APPLICATIONS
SYSTEM TYPE A: BONDED INSULATION, BONDED ROOF COVER

^A 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 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf) ^A
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
JM TPO APPLICATIONS:							
R-1	Existing asphaltic BUR	Min. 0.25-inch Invinsa Roof Board	MBR-BA <i>(full coverage at 1.5 gal/sq)</i>	N/A	N/A	JM-TPO-MBA OR JM-TPO-WBMA	-112.5
R-2	Existing asphaltic BUR	(Optional if coverboard used) Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	JM-OSFA	(Optional if base insulation used) Min. 0.25-inch DensDeck or Invinsa Roof Board	JM-OSFA	JM-TPO-MBA	-75.0
R-3	Existing asphaltic BUR	(Optional if coverboard used) Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	JM-OSFA	(Optional if base insulation used) Min. 0.25-inch Invinsa Roof Board	JM-OSFA	JM-TPO-WBMA	-75.0
R-4	Existing asphaltic BUR or granule-surfaced modified bitumen	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-OSFA	0.5-inch Separator CGF or Separator FR	JM-OSFA	JM-TPO-MBA or JM-TPO-LVOC	-105.0
R-5	Existing asphaltic BUR or granule-surfaced modified bitumen	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-OSFA	0.5-inch Separator CGF or Separator FR	JM-OSFA	JM-TPO-WBMA	-195.0
R-6	Existing asphaltic BUR or granule-surfaced modified bitumen	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-OSFA	0.5-inch Separator CGF or Separator FR	JM-OSFA	JM-TPO-LVOC	-217.0
R-7	Existing asphaltic BUR or granule-surfaced modified bitumen	Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-OSFA	0.5-inch Separator CGF or Separator FR	JM-OSFA	JM-TPO-MBA	-247.5
R-8	Existing asphaltic BUR or granule-surfaced modified bitumen	0.5-inch Separator CGF or Separator FR	JM-OSFA	None	N/A	JM-TPO-MBA	-322.5
R-9	Existing asphaltic BUR or granule-surfaced modified bitumen	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-RSUA	0.5-inch Separator CGF or Separator FR	JM-RSUA	JM-TPO-MBA or JM-TPO-LVOC	-105.0
R-10	Existing asphaltic BUR or granule-surfaced modified bitumen	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-RSUA	0.5-inch Separator CGF or Separator FR	JM-RSUA	JM-TPO-WBMA	-195.0

TABLE 6A: RECOVER APPLICATIONS
SYSTEM TYPE A: BONDED INSULATION, BONDED ROOF COVER

^A 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 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf) ^A
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
R-11	Existing asphaltic BUR or granule-surfaced modified bitumen	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-RSUA	0.5-inch Separator CGF or Separator FR	JM-RSUA	JM-TPO-LVOC	-217.0
R-12	Existing asphaltic BUR or granule-surfaced modified bitumen	Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-RSUA	0.5-inch Separator CGF or Separator FR	JM-RSUA	JM-TPO-MBA	-247.5
R-13	Existing asphaltic BUR or granule-surfaced modified bitumen	0.5-inch Separator CGF or Separator FR	JM-RSUA	None	N/A	JM-TPO-MBA	-322.5
R-14	Existing asphaltic BUR	(Optional if coverboard used) Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	(Optional if base insulation used) Min. 0.25-inch DensDeck or Invinsa Roof Board or min. 1.5-inch Invinsa Foam	UIA-TWO-PART	JM-TPO-MBA	-105.0
R-15	Existing asphaltic BUR	(Optional) Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	Min. 0.25-inch Invinsa Roof Board or min. 1.5-inch Invinsa Foam	UIA-TWO-PART	JM-TPO-WBMA	-105.0
R-16	Existing asphaltic BUR or granule-surfaced modified bitumen	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	UIA-TWO-PART	0.5-inch Separator CGF or Separator FR	UIA-TWO-PART	JM-TPO-MBA or JM-TPO-LVOC	-105.0
R-17	Existing asphaltic BUR	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	(Optional) Additional layers of base insulation	UIA-TWO-PART	JM-TPO-MBA or JM-TPO-LVOC	-120.0
R-18	Existing asphaltic BUR or granule-surfaced modified bitumen	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	UIA-TWO-PART	0.5-inch Separator CGF or Separator FR	UIA-TWO-PART	JM-TPO-WBMA	-195.0
R-19	Existing asphaltic BUR or granule-surfaced modified bitumen	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	UIA-TWO-PART	0.5-inch Separator CGF or Separator FR	UIA-TWO-PART	JM-TPO-LVOC	-217.0

TABLE 6A: RECOVER APPLICATIONS
SYSTEM TYPE A: BONDED INSULATION, BONDED ROOF COVER

^A 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 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf) ^A
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
R-20	Existing asphaltic BUR or granule-surfaced modified bitumen	Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	UIA-TWO-PART	0.5-inch Separator CGF or Separator FR	UIA-TWO-PART	JM-TPO-MBA	-247.5
R-21	Existing asphaltic BUR or granule-surfaced modified bitumen	0.5-inch Separator CGF or Separator FR	UIA-TWO-PART	None	N/A	JM-TPO-MBA	-322.5
R-22	Existing asphaltic BUR or mineral surface cap sheet	Min. 0.25-inch DensDeck	Polysat CRA	N/A	N/A	JM-TPO-MBA	-105.0
R-23	Existing asphaltic BUR or mineral surface cap sheet	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Polysat CRA	(Optional) Additional layers of base insulation	Polysat CRA	JM-TPO-MBA or JM-TPO-LVOC	-217.5
JM TPO FB APPLICATIONS:							
R-24	Existing asphaltic BUR or granule-surfaced modified bitumen	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-OSFA	0.5-inch Separator CGF or Separator FR	JM-OSFA	JM-TPOFB-RSUA, 4-inch o.c.	-112.5
R-25	Existing asphaltic BUR or granule-surfaced modified bitumen	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-OSFA	0.5-inch Separator CGF or Separator FR	JM-OSFA	JM-TPOFB-WBMA	-187.5
R-26	Existing asphaltic BUR or granule-surfaced modified bitumen	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-RSUA	0.5-inch Separator CGF or Separator FR	JM-RSUA	JM-TPOFB-RSUA, 4-inch o.c.	-112.5
R-27	Existing asphaltic BUR or granule-surfaced modified bitumen	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-RSUA	0.5-inch Separator CGF or Separator FR	JM-RSUA	JM-TPOFB-WBMA	-187.5
R-28	Existing asphaltic BUR	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	UIA-TWO-PART	(Optional) Additional layers of base insulation or Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM-TPOFB-WBMA	-105.0
R-29	Existing asphaltic BUR or granule-surfaced modified bitumen	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	UIA-TWO-PART	0.5-inch Separator CGF or Separator FR	UIA-TWO-PART	JM-TPOFB-RSUA, 4-inch o.c.	-112.5

TABLE 6A: RECOVER APPLICATIONS
SYSTEM TYPE A: BONDED INSULATION, BONDED ROOF COVER

^A 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 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf) ^A
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
R-30	Existing asphaltic BUR or granule-surfaced modified bitumen	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	UIA-TWO-PART	0.5-inch Separator CGF or Separator FR	UIA-TWO-PART	JM-TPOFB-WBMA	-187.5
R-31	Existing asphaltic BUR	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF	Polysat CRA	(Optional) Additional layers of base insulation or Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Polysat CRA	JM-TPOFB-WBMA	-105.0
R-32	Existing asphaltic BUR or granule-surfaced modified bitumen	(Optional) Min. 0.5-inch ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI	JM-OSFA, JM-RSUA or UIA-TWO-PART	0.5-inch Separator CGF or Separator FR	JM-OSFA, JM-RSUA or UIA-TWO-PART	JM TPO SA – 60 MIL	-120.0

TABLE 6B: RECOVER OVER EXISTING METAL PANEL ROOF
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 pilot hole pre-drilled into the panel prior to driving the purlin fastener into the purlin.)

System No.	Deck (Note 1)	Insulation Layer (Note 5)	Attachment			Roof Cover (Note 15B)	MDP (psf)
			Fasteners (Note 11)	Row Space (inch)	Fastener Space (inch)		
RHINO BOND SYSTEMS:							
R-33	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.060-in.), 50 ksi steel purlins spaced max. 60-inch o.c.	ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF between ribs or over panels of existing non-structural metal roof followed by additional base layer or Min. 0.25-inch DensDeck, Invinsa Roof Board or SECUROCK Gypsum-Fiber Roof Board or min. 7/16-inch OSB, prelim attach.	JM Purlin Fasteners with JM TPO RhinoPlates fastened through to purlins	120	6	JM TPO 60, 72 or 80 induction welded using RhinoPlates with RhinoBond Portable Bonding Tool, per manufacturer's published instructions.	-45.0
R-34	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.060-in.), 50 ksi steel purlins spaced max. 60-inch o.c.	ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF between ribs or over panels of existing non-structural metal roof followed by additional base layer or Min. 0.25-inch DensDeck, Invinsa Roof Board or SECUROCK Gypsum-Fiber Roof Board or min. 7/16-inch OSB, prelim attach.	JM Purlin Fasteners with JM TPO RhinoPlates fastened through to purlins	60	18	JM TPO 60, 72 or 80 induction welded using RhinoPlates with RhinoBond Portable Bonding Tool, per manufacturer's published instructions.	-45.0

**TABLE 6B: RECOVER OVER EXISTING METAL PANEL ROOF
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 pilot hole pre-drilled into the panel prior to driving the purlin fastener into the purlin.)

System No.	Deck (Note 1)	Insulation Layer (Note 5)	Attachment			Roof Cover (Note 15B)	MDP (psf)
			Fasteners (Note 11)	Row Space (inch)	Fastener Space (inch)		
R-35	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.060-in.), 50 ksi steel purlins spaced max. 60-inch o.c.	ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF between ribs or over panels of existing non-structural metal roof followed by additional base layer or Min. 0.25-inch DensDeck, Invinsa Roof Board or SECUROCK Gypsum-Fiber Roof Board or min. 7/16-inch OSB, prelim attach.	JM Purlin Fasteners with JM TPO RhinoPlates fastened through to purlins	60	12	JM TPO 60, 72 or 80 induction welded using RhinoPlates with RhinoBond Portable Bonding Tool, per manufacturer's published instructions.	-67.5
R-36	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.060-in.), 50 ksi steel purlins spaced max. 60-inch o.c.	ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF between ribs or over panels of existing non-structural metal roof followed by additional base layer or Min. 0.25-inch DensDeck, Invinsa Roof Board or SECUROCK Gypsum-Fiber Roof Board or min. 7/16-inch OSB, prelim attach.	JM Purlin Fasteners with JM TPO RhinoPlates fastened through to purlins	60	6	JM TPO 60, 72 or 80 induction welded using RhinoPlates with RhinoBond Portable Bonding Tool, per manufacturer's published instructions.	-120.0

**TABLE 6C: RECOVER OVER EXISTING METAL PANEL ROOF
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 pilot hole pre-drilled into the panel prior to driving the purlin fastener into the purlin.)

System No.	Deck (Note 1)	Insulation (Note 3 , Note 13)			Roof Cover (Note 15A)			MDP (psf)
		Base Layer	Top Layer	Attach (Note 5)	Membrane	Fasteners (Note 11)	Attachment	
R-37	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.060-in.), 50 ksi steel purlins spaced max. 60-inch o.c.	ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF between ribs or over panels of existing non-structural metal roof	Additional base layer or Min. 0.25-inch DensDeck, Invinsa Roof Board or SECUROCK Gypsum-Fiber Roof Board or min. 7/16-inch OSB	Prelim. Attached	JM TPO 45, 60, 72 or 80	JM Purlin Fasteners with High Load Plates	Fasteners spaced 12-inch o.c. within 5-inch wide laps engage structural supports spaced 60-inch o.c. Laps sealed with 1.5-inch heat weld.	-37.5
R-38	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.060-in.), 50 ksi steel purlins spaced max. 60-inch o.c.	ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF between ribs or over panels of existing non-structural metal roof	Additional base layer or Min. 0.25-inch DensDeck, Invinsa Roof Board or SECUROCK Gypsum-Fiber Roof Board or min. 7/16-inch OSB	Prelim. Attached	JM TPO 45, 60, 72 or 80	JM Purlin Fasteners with Extra High Load Plates	Fasteners spaced 12-inch o.c. within 5-inch wide laps engage structural supports spaced 60-inch o.c. Laps sealed with 1.5-inch heat weld.	-45.0

TABLE 6C: RECOVER OVER EXISTING METAL PANEL ROOF
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 pilot hole pre-drilled into the panel prior to driving the purlin fastener into the purlin.)

System No.	Deck (Note 1)	Insulation (Note 3 , Note 13)		Attach (Note 5)	Roof Cover (Note 15A)			MDP (psf)
		Base Layer	Top Layer		Membrane	Fasteners (Note 11)	Attachment	
R-39	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.060-in.), 50 ksi steel purlins spaced max. 60-inch o.c.	ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, PSI-25, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF, ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF between ribs or over panels of existing non-structural metal roof	Additional base layer or Min. 0.25-inch DensDeck, Invinsa Roof Board or SECUROCK Gypsum-Fiber Roof Board or min. 7/16-inch OSB	Prelim. Attached	JM TPO 45, 60, 72 or 80	JM Purlin Fasteners with High Load Plates	Fasteners spaced 6-inch o.c. within 5-inch wide laps engage structural supports spaced 60-inch o.c. Laps sealed with 1.5-inch heat weld.	-82.5

TABLE 6D: RECOVER APPLICATIONS
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

^A 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 & 12)	Roof Cover (Note 15)	MDP (psf) ^A
R-40	Existing asphaltic granule surface cap sheet	JM-TPOFB-RSUA, 12-inch o.c.	-45.0
R-41	Existing granule-surfaced, SBS modified bitumen roof system	JM-TPOFB-RSUA, 6-inch o.c.	-165.0