



NEMO|etc.

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ENGINEER

EVALUATE

TEST

CONSULT

EVALUATION REPORT

Johns Manville
P.O. Box 5108
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(303) 978-4879

Evaluation Report J9340.10.08-R11
FL11475-R11
Date of Issuance: 10/16/2008
Revision 11: 02/09/2021

SCOPE:

This Evaluation Report is issued under **Rule 61G20-3** and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code. The product described herein has been evaluated for compliance with the **7th Edition (2020) Florida Building Code** sections noted herein.

DESCRIPTION: JM TPO Single Ply Roof Systems

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

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

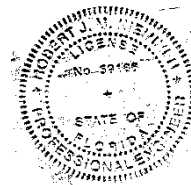
ADVERTISEMENT: The Florida Product Approval Number (FL#) preceded by the words "NEMO|etc. Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

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

This Evaluation Report consists of pages 1 through 5, plus a 47-page Appendix.

Prepared by:

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



The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 02/09/2021. This does not serve as an electronically signed document.

CERTIFICATION OF INDEPENDENCE:

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

ROOFING SYSTEMS EVALUATION:
1. SCOPE:

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

Compliance Statement: JM TPO Single Ply Roof Systems, as produced by Johns Manville, have demonstrated compliance with the following sections of the 7th Edition (2020) Florida Building Code through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

2. STANDARDS:

Section	Property	Standard	Year
1504.3.1	Wind resistance	FM 4474	2011
1504.6	Physical properties	ASTM G155	2013
1504.7	Impact resistance	FM 4470	2016
1507.10.2	Material standard	ASTM D2178	2015
1507.10.2	Material standard	ASTM D4601	2012
1507.11.2	Material standard	ASTM D6162	2015
1507.11.2	Material standard	ASTM D6163	2015
1507.11.2	Material standard	ASTM D6164	2011
1507.13.2	Material standard	ASTM D6878	2013

3. REFERENCES:

Entity	Examination	Reference	Date
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 (TST1867)	FM 4470/4474	3055227	05/21/2015
FM (TST 1867)	FM 4470/4474	3056303	11/05/2015
FM (TST1867)	FM 4470/4474	3056049	01/13/2016

Entity	Examination	Reference	Date
FM (TST 1867)	FM 4470/4474	3056677	02/22/2016
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
PRI (TST 5878)	ASTM D6163	JMC-065-02-01	01/25/2012
PRI (TST 5878)	ASTM D2178	JMC-070-02-01	03/04/2012
PRI (TST 5878)	ASTM D2178	JMC-071-02-01	03/04/2012
PRI (TST 5878)	ASTM D6164	JMC-075-02-04.2	03/12/2012
PRI (TST 5878)	ASTM D4601	JMC-072-02-02	06/04/2012
PRI (TST 5878)	ASTM D4601	JMC-093-02-01	08/02/2012
PRI (TST 5878)	ASTM D6163	JMC-171-02-01	09/03/2013
PRI (TST 5878)	ASTM D6163	JMC-171-02-01	09/03/2013
PRI (TST 5878)	ASTM D6163	JMC-171-02-02	09/03/2013
PRI (TST 5878)	FM 4470/4474	JMC-163-02-01	09/06/2013
PRI (TST 5878)	ASTM D6164	JMC-171-02-03	09/10/2013
PRI (TST 5878)	ASTM D6164	JMC-171-02-011	09/25/2013
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)	ASTM D6162	JMC-234-02-04	07/21/2015
PRI (TST 5878)	FM 4470/4474	JMC-237-02-01	08/24/2015
PRI (TST 5878)	ASTM D6164	JMC-238-02-03	12/01/2015
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
UL LLC (QUA 9625)	Quality Control	Service Confirmation	04/24/2019
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

TABLE 1: EVALUATED MEMBRANES

Type	Product	Material Standard			Plant(s)
		Reference	Type	Grade	
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 Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.
- 5.2 This Evaluation Report is not for use in FBC High Velocity Hurricane Zone jurisdictions (i.e., Broward and Miami-Dade Counties).
- 5.3 This Evaluation Report pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction.
- 5.4 This Evaluation Report does not include evaluation of fire classification. Refer to **FBC 1505** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.
- 5.5 This Evaluation Report does not include evaluation of roof edge termination. Refer to **FBC 1504.5** for requirements and limitations regarding edge securement for low-slope roofs.
- 5.6 Refer to **FBC 1511** for requirements and limitations regarding recover installations.
- 5.6.1 For mechanically attached components over existing roof decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing shall be in accordance with **ANSI/SPRI FX-1** or **Testing Application Standard TAS 105**.
- 5.6.2 For bonded insulation or membrane over existing substrates in a re-roof (tear off) or recover installation, the existing deck or existing roof surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with **ANSI/SPRI IA-1, ASTM E907, FM Loss Prevention Data Sheet 1-52** or **Testing Application Standard TAS 124** shall be conducted on mock-ups of the proposed new roof assembly.
- 5.6.3 For bonded insulation or membrane over existing substrates in a recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the Authority Having Jurisdiction, as documented through field uplift testing in accordance with **ASTM E907, FM Loss Prevention Data Sheet 1-52** or **Testing Application Standard TAS 124**.
- 5.7 Refer to Appendix 1 for system attachment requirements for wind load resistance.

- 5.7.1 “MDP” = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads, and reflects the ultimate passing pressure divided by 2 (the 2 to 1 margin of safety per **FBC 1504.9** has already been applied). Refer to **FBC 1609** for determination of design wind loads.
- 5.7.2 For mechanically attached components or partially-bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 PRIME design pressure determined in accordance with **FBC Chapter 16**. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are **ANSI/SPRI WD1**, **FM Loss Prevention Data Sheet 1-29**, **Roofing Application Standard RAS 117** and **Roofing Application Standard RAS 137**. Assemblies marked with an asterisk* carry the limitations set forth in **Section 2.2.10.1 of FM Loss Prevention Data Sheet 1-29 (February 2020)** for Zone 2/3 enhancements.
- 5.7.3 For assemblies with all components fully bonded in place, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with **FBC Chapter 16**. No rational analysis is permitted for these systems.
- 5.8 All components in the roof assembly shall have quality assurance audit in accordance with **F.A.C. Rule 61G20-3**. Refer to the Product Approval of the component manufacturer for components listed in Appendix 1 that are produced by a Product Manufacturer other than the report holder on Page 1 of this Evaluation Report.

6. INSTALLATION:

JM TPO Single Ply Roof Systems shall be installed in accordance with **Johns Manville** published installation instructions, subject to the Limitations / Conditions of Use noted herein.

7. BUILDING PERMIT REQUIREMENTS:

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

8. MANUFACTURING PLANTS:

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

9. QUALITY ASSURANCE ENTITY:

UL LLC– QUA9625; (613) 371-2765; Jacob.Stewart@ul.com

- THE 47-PAGES THAT FOLLOW FORM PART OF THIS EVALUATION REPORT -

APPENDIX 1: ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE

TABLE	DECK	APPLICATION	TYPE	DESCRIPTION	PAGE
1A	Wood	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover	5
1B	Wood	New, Reroof (Tear-Off), Recover	C-2	Mechanically Attached Insulation, Plate-Bonded Roof Cover	5
1B	Wood	New, Reroof (Tear-Off), Recover	D-1	Insulated, Mechanically Attached Roof Cover	6
2A	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	B-1	Mechanically Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	7-9
2B	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	B-1	Mechanically Attached Base Insulation, Bonded Top Insulation, Hybrid System	9
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	10-11
2D	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover	12-21
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	Mechanically Attached Insulation, Plate-Bonded Roof Cover	22-24
2G	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	D-1	Insulated, Mechanically Attached Roof Cover (Stress Plates)	24-26
2H	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	D-1	Insulated, Mechanically Attached Roof Cover (RPS Strips)	26
3A	Structural Concrete	New, Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	27-34
3B	Structural Concrete	New, Reroof (Tear-Off)	A-1	Bonded Insulation, Hybrid System	35
3C	Structural Concrete	New, Reroof (Tear-Off), Recover	C-2	Mechanically Attached Insulation, Plate-Bonded Roof Cover	36-37
4A	Lightweight concrete / steel	New, Reroof (Tear-Off)	F	LWC to Steel Deck, Bonded Roof Cover	38
4B	Lightweight concrete / concrete	New, Reroof (Tear-Off)	F	LWC to Structural Concrete Deck, Bonded Roof Cover	38
4C	Lightweight concrete / 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	41-45
6B	Various	Recover Over Existing Metal Roof	C-2	Mech. Attached Insulation, Plate-Bonded Roof Cover	46
6C	Various	Recover Over Existing Metal Roof	D-1	Insulated, Mechanically Attached Roof Cover	47
6D	Various	Recover	F	Non-Insulated, Bonded Roof Cover	47

The following notes apply to the systems outlined herein:

- The roof system evaluation herein pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction.
- Unless otherwise noted, fasteners and stress plates shall be as follows. Fasteners shall be of sufficient length for the following engagements:
 - Wood Deck: UltraFast Fasteners or All Purpose Fasteners with UltraFast Metal Plates. Min. ¾-inch plywood penetration or minimum 1-inch wood plank embedment.
 - Steel Deck: UltraFast Fasteners or All Purpose Fasteners with UltraFast Metal Plates. Minimum ¾-inch steel penetration, engage the top flute of the steel deck.
 - Structural Concrete: 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 (February 2020).
- 6 Unless otherwise noted, insulation adhesive application rates are as follows. Ribbon or bead width is at the time of application; the ribbons/beads shall expand as noted in the manufacturer's published instructions.
- hot asphalt: Full mopping, 25-30 lbs/square.
 - 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. *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*
 - ICP Adhesives & Sealants "Polyset CR-20": Continuous 2.5 TO 3.5-inch ribbons, 12-inch o.c.
 - *Note: When multiple layers(s) of insulation and/or coverboard are installed in ribbon-applied adhesive, board joints shall be staggered.*
 - *Note: The maximum edge distance from the adhesive ribbon to the edge of the insulation board shall be not less than one-half the specified ribbons spacing.*
- 7 Unless otherwise noted, all insulations are flat-stock or taper board of the minimum thickness noted. Tapered polyisocyanurate at the following thickness limitations may be substituted with the following Maximum Design Pressure (MDP) limitations. In no case shall these values be used to 'increase' the MDP listings in the tables; rather if MDP listing below meets or exceeds that listed for a particular system in the tables, then the thinner board listed below may be used as a drop-in for the equivalent thicker material listed in the table.
- JM-OSFA: MDP = -157.5 psf (Min. 0.5-inch thick)
 - JM RSUA: MDP = -157.5 psf (Min. 0.5-inch thick)
 - UIA-TWO-PART: MDP = -315.0 psf (Min. 0.5-inch thick ENRGY 3 or JM ISO 3)
 - Polyset CR-20: MDP = -117.5 psf (Min. 1.0-inch thick)
- 8 For adhered roof insulation and board-size: Unless otherwise noted, refer to Section 2.2.10.6.2 of FM Loss Prevention Data Sheet 1-29 (February 2020).
- 9 For mechanically attached components or partially-bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 PRIME design pressure determined in accordance with FBC Chapter 16. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are ANSI/SPRI WD1, FM Loss Prevention Data Sheet 1-29, Roofing Application Standard RAS 117 and Roofing Application Standard RAS 137. Assemblies marked with an asterisk* carry the limitations set forth in Section 2.2.10.1 of FM Loss Prevention Data Sheet 1-29 (February 2020) for Zone 2/3 enhancements.
- 10 For assemblies with all components fully bonded, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16. No rational analysis is permitted for these systems.
- 11 For mechanically attached components over existing decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing and analysis shall be in accordance with ANSI/SPRI FX-1 or Testing Application Standard TAS 105.
- 12 For bonded insulation or membrane over existing substrates in a re-roof (tear off) or recover installation, the existing deck or existing roof surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance shall be conducted on mock-ups of the proposed new roof assembly. For bonded insulation or membrane over existing substrates in a recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the Authority Having Jurisdiction, as documented through field uplift testing. Field uplift testing shall be in accordance with ASTM E907, FM Loss Prevention Data Sheet 1-52 or Testing Application Standard TAS 124.
- 13 Refer to FBC 1511 for requirements and limitations regarding recover installations. For Structural Concrete Deck or Recover Applications using System Type C-1, C-2, D-1 or D-2, the insulation is optional. Alternatively, an FBC Approved insulation board or coverboard may be used as a separation layer. Board products shall be preliminarily attached prior to roof cover installation (Note 5 herein). The separator component shall be documented as meeting FBC 1505 and, for foam plastic, FBC Chapter 26, when installed with the roof cover in Recover applications.

- 14 Lightweight insulating concrete (LWIC) shall be cast in accordance with FBC Section 1917 to the satisfaction of the Authority Having Jurisdiction. For systems where specific LWIC is referenced, refer to current LWIC Product Approval for specific deck construction and limitations. Unless otherwise noted, for systems where specific LWIC is not referenced, the minimum design mix shall be 300 psi. In all cases, the minimum top-coat thickness is 2-inches. For LWIC over structural concrete, reference is made to FBC Section 1917.4.1, Point 1. For “pre-existent” LWIC references, listings were established through testing over lightweight concrete cast using only foaming agent (ASTM C896), water and Portland cement (ASTM C150), with no proprietary additives, in accordance with procedures adopted by Miami-Dade BCCO (FBC CER1592). Use of these listings in new construction or re-roof (tear-off) applications is at the discretion of the Designer or Record and Authority Having Jurisdiction.
- 15 For bonded membrane applications, unless otherwise noted, refer to the following.

MEMBRANE / ADHESIVE COMBINATIONS					
REFERENCE	LAYER	MATERIAL	APPLICATION		
			ADHESIVE	METHOD	RATE
JM MBA (TPO&EPDM)	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 LVOC MA (TPO&EPDM)	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 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 TPO 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
JM-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.
JM-SP-UIA-TWO-PART	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 UIA-TWO-PART-CANISTER	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.
hot asphalt	Roof Cover or Cap Ply:	JM TPO FB 150 or 175	hot asphalt	Wet lay (substrate)	Hot asphalt at 20 lbs/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 Vapor barrier options for use over structural concrete deck followed by bonded insulation carry the following MDP limitations. The lesser of the MDP listings below vs. those in Table 3A applies.

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

- 18 For System Types B-1 or C-1, the following vapor retarder options 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 (February 2020) 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 "MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. Refer to FBC 1609 for determination of design wind loads

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

System No.	Deck (Note 1)	Base Insulation Layer (Note 13)	Top Insulation Layer			Roof Cover (Note 15)		MDP (psf)
			Type	Fasteners (Note 11)	Attach	Type	Attach	
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 ft ²	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 ft ²	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 ft ²	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-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 ft ²	JM TPO FB 150 or 175	Hot asphalt	-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 ft ²	JM TPO FB 150 or 175	Hot asphalt	-45.0*

**TABLE 1B: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, PLATE-BONDED ROOF COVER**

System No.	Deck (Note 1)	Insulation Layer (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)	JM TPO 60, 72 or 80 bonded to JM TPO RhinoPlates with 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 bonded to JM TPO RhinoPlates with 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 bonded to JM TPO RhinoPlates with 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 bonded to JM TPO RhinoPlates with 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 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	Type	Attach (Notes 6,7,8)	Type	Attach	
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 ft ²	Min. 0.5-inch RetroPlus Board	JM-RSUA	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-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 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 45, 60, 72 or 80	JM LVOC MA (TPO&EPDM)	-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 ft ²	Min. 0.5-inch RetroPlus Board	UIA-TWO-PART	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-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 ft ²	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	UIA-TWO-PART	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 ft ²	Additional layer(s) base insulation	Hot Asphalt	JM TPO FB 115 or 135	JM TPO 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 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM-OSFA	JM TPO FB 115 or 135	JM TPO 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 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM-OSFA	JM TPO FB 115 or 135	JM TPO 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	Type	Attach (Notes 6,7,8)	Type	Attach	
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 TPO FB 115 or 135	JM-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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM TPO 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	CR-20	JM TPO FB 115 or 135	JM TPO 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	CR-20	JM TPO FB 115 or 135	JM TPO 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 TPO FB 150 or 175	Hot asphalt	-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 TPO FB 150 or 175	Hot asphalt	-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	Type	Attach (Notes 6,7,8)	Type	Attach	
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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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	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 TPO FB 150 or 175 / Hot asphalt	-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 TPO FB 150 or 175 / Hot asphalt	-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 TPO FB 150 or 175 / Hot asphalt	-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 TPO FB 150 or 175 / Hot asphalt	-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 TPO FB 150 or 175 / Hot asphalt	-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	Type	Attach	Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Type	Attach	
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 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 45, 60, 72 or 80	JM LVOC MA (TPO&EPDM)	-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 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. 0.5-inch RetroPlus Board	UIA-TWO-PART	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-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 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 min. 7/16-inch DEXcell Cement Roof Board	UIA-TWO-PART	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 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 SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 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	Additional layer(s) base insulation	UIA-TWO-PART	JM TPO FB 115 or 135	JM TPO 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 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 SECUROCK Gypsum-Fiber Roof Board	UIA-TWO-PART	JM TPO FB 115 or 135	JM TPO 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	Type	Attach	Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Type	Attach	
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 TPO FB 115 or 135	JM-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 TPO FB 150 or 175	Hot asphalt	-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	Self-adhering	-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	Self-adhering	-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 13)	Top Insulation Layer			Roof Cover (Note 15)		MDP (psf)
			Type	Fasteners (Note 11)	Attach	Type	Attach	
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 ft ²	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 ft ²	JM TPO 45, 60, 72 or 80	JM TPO WBMA, JM MBA (TPO&EPDM)	-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 ft ²	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 ft ²	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-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 ft ²	JM TPO 45, 60, 72 or 80	JM TPO WBMA, JM MBA (TPO&EPDM)	-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 ft ²	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 ft ²	JM TPO 45, 60, 72 or 80	JM TPO WBMA, JM MBA (TPO&EPDM)	-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 ft ²	JM TPO 45	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 ft ²	JM TPO 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 13)	Top Insulation Layer			Roof Cover (Note 15)		MDP (psf)
			Type	Fasteners (Note 11)	Attach	Type	Attach	
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 ft ²	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 ft ²	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) or JM TPO WBMA	-45.0*
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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 13)	Top Insulation Layer			Roof Cover (Note 15)		MDP (psf)
			Type	Fasteners (Note 11)	Attach	Type	Attach	
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 PSA CGF	Note 2	1 per 1.8 ft ²	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-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 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) or JM TPO WBMA	-52.5
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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 C1, ENRGY 3 C1 CGF	Note 2 (round or square plates)	1 per 1.6 ft ²	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) or JM TPO WBMA	-75.0

**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 13)	Top Insulation Layer			Roof Cover (Note 15)		MDP (psf)
			Type	Fasteners (Note 11)	Attach	Type	Attach	
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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-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 SECUROCK Gypsum-Fiber Roof Board	Note 2 (square plates)	1 per 1.6 ft ²	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-105.0
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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) or JM TPO WBMA	-112.5

**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 13)	Top Insulation Layer			Roof Cover (Note 15)		MDP (psf)
			Type	Fasteners (Note 11)	Attach	Type	Attach	
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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 45, 60, 72 or 80	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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM-RSUA, 12-inch o.c. or JM UIA-TWO-PART-CANISTER (splatter)	-45.0*
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 ft ²	JM TPO FB 115 or 135	JM UIA-TWO-PART-CANISTER (splatter)	-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 13)	Top Insulation Layer			Roof Cover (Note 15)		MDP (psf)
			Type	Fasteners (Note 11)	Attach	Type	Attach	
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 ft ²	JM TPO FB 115 or 135	JM TPO 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 ft ²	JM TPO FB 115 or 135	JM-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 ft ²	JM TPO FB 115 or 135	JM-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 ft ²	JM TPO FB 115 or 135	JM TPO 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 ft ²	JM TPO FB 150 or 175	Hot asphalt	-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 ft ²	JM TPO FB 150 or 175	Hot asphalt	-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 ft ²	JM TPO FB 150 or 175	Hot asphalt	-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 13)	Top Insulation Layer			Roof Cover (Note 15)		MDP (psf)
			Type	Fasteners (Note 11)	Attach	Type	Attach	
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 ft ²	JM TPO FB 150 or 175	Hot asphalt	-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 ft ²	JM TPO FB 150 or 175	Hot asphalt	-82.5
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 TPO FB 150 or 175	Hot asphalt	-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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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 13)	Top Insulation Layer			Roof Cover (Note 15)		MDP (psf)
			Type	Fasteners (Note 11)	Attach	Type	Attach	
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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-45.0*
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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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 13)	Top Insulation Layer			Roof Cover (Note 15)		MDP (psf)
			Type	Fasteners (Note 11)	Attach	Type	Attach	
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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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 CGF, 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	Self-adhering	-60.0
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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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 13)	Top Insulation Layer			Roof Cover (Note 15)		MDP (psf)
			Type	Fasteners (Note 11)	Attach	Type	Attach	
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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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	Self-adhering	-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 13)	Top Insulation Layer			Roof Cover (Note 15)		MDP (psf)
			Type	Fasteners (Note 11)	Attach	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 TPO FB 150 or 175 / hot asphalt	-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 TPO FB 150 or 175 / hot asphalt	-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 TPO FB 150 or 175 / hot asphalt	-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 TPO FB 150 or 175 / hot asphalt	-60.0

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

System No.	Deck (Note 1)	Insulation Layer (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 bonded to JM TPO RhinoPlates with 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 ft ² (6 parts per 4 x 8 ft board)	JM TPO 60, 72 or 80 bonded to JM TPO RhinoPlates with 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 bonded to JM TPO RhinoPlates with 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 bonded to JM TPO RhinoPlates with 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 ft ² (8 parts per 4 x 8 ft board)	JM TPO 60, 72 or 80 bonded to JM TPO RhinoPlates with 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 ft ² (12 parts per 4 x 8 ft board) Fasteners are 6-, 24- and 42-inches from the board's long edge and 12-, 36-, 60- and 84-inches from the board's short edge.	JM TPO 60, 72 or 80 bonded to JM TPO RhinoPlates with 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 bonded to JM TPO RhinoPlates with 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 ft ² (15 parts per 4 x 8 ft board) Fasteners are 6-, 24- and 42-inches from the board's long edge and 12-, 30-, 48-, 66- and 84-inches from the board's short edge.	JM TPO 60, 72 or 80 bonded to JM TPO RhinoPlates with RhinoBond Portable Bonding Tool, per manufacturer's published instructions.	-90.0
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 bonded to JM TPO RhinoPlates with 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 bonded to JM TPO RhinoPlates with 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 per FM LPDS 1-29)	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*

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

System No.	Deck (Note 1)	Insulation Layer (Note 13)	Attachment		Roof Cover (Note 15B)	MDP (psf)
			Fasteners (Note 11)	Spacing		
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 board per FM LPDS 1-29)	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 board per FM LPDS 1-29)	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
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 per FM LPDS 1-29)	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

TABLE 2F: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER						
SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, PLATE-BONDED ROOF COVER						
System No.	Deck (Note 1)	Insulation Layer (Note 13)	Attachment		Roof Cover (Note 15B)	MDP (psf)
			Fasteners (Note 11)	Spacing		
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 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
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

**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 13)		Roof Cover (Note 15A)			MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners (Note 11)	Attach	
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
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

**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 13)		Roof Cover (Note 15A)			MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners (Note 11)	Attach	
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 NOTE 16 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)	Type	Attach	
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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 45, 60, 72 or 80	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 45, 60, 72 or 80	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 45, 60, 72 or 80	JM LVOC MA (TPO&EPDM)	-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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 45, 60, 72 or 80	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 45, 60, 72 or 80	JM LVOC MA (TPO&EPDM)	-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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) or JM TPO WBMA	-247.5

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

System No.	Deck (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)	Type	Attach	
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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-247.5
C-12	Min. 2,500 psi structural concrete	None	0.5-inch SeparatoR CGF or SeparatoR FR	JM-RSUA	None	N/A	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 45, 60, 72 or 80	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 45, 60, 72 or 80	JM TPO WBMA, JM MBA (TPO&EPDM)	-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 45, 60, 72 or 80	JM TPO WBMA, JM MBA (TPO&EPDM)	-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 45, 60, 72 or 80	JM TPO WBMA, JM MBA (TPO&EPDM)	-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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 45, 60, 72 or 80	JM LVOC MA (TPO&EPDM)	-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 45, 60, 72 or 80	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 45, 60, 72 or 80	JM TPO WBMA	-195.0

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

System No.	Deck (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)	Type	Attach	
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 45, 60, 72 or 80	JM LVOC MA (TPO&EPDM)	-217.0
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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 45, 60, 72 or 80	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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 45, 60, 72 or 80	JM LVOC MA (TPO&EPDM)	-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 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 45, 60, 72 or 80	JM LVOC MA (TPO&EPDM)	-360.0

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

System No.	Deck (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)	Type	Attach	
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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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 45, 60, 72 or 80	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	CR-20	Min. 0.25-inch DensDeck	CR-20	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-105.0
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	CR-20	(Optional) Min. 0.25-inch DensDeck	MBR-BA	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-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	CR-20	Min. 0.25-inch Invinsa Roof Board	CR-20	JM TPO 45, 60, 72 or 80	JM TPO WBMA, JM MBA (TPO&EPDM)	-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	CR-20	Min. 0.25-inch Invinsa Roof Board	MBR-BA (full coverage at 1.5 gal/sq)	JM TPO 45, 60, 72 or 80	JM TPO WBMA, JM MBA (TPO&EPDM)	-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	CR-20	(Optional) Additional layers of base insulation	CR-20	JM TPO 45, 60, 72 or 80	JM LVOC MA (TPO&EPDM)	-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	CR-20	(Optional) Additional layers of base insulation	CR-20	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-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	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM), JM LVOC MA (TPO&EPDM) 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 TPO FB 115 or 135	JM TPO 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 NOTE 16 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)	Type	Attach	
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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM TPO WBMA	-105.0
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 TPO FB 115 or 135	JM-RSUA or JM-SP-UIA-TWO-PART, 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 TPO FB 115 or 135	JM-RSUA, 4-inch o.c. (full coverage)	-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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM-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 TPO FB 115 or 135	JM-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 TPO FB 115 or 135	JM-RSUA or JM-SP-UIA-TWO-PART, 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 TPO FB 115 or 135	JM-RSUA, 4-inch o.c. (full coverage)	-112.5

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

System No.	Deck (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)	Type	Attach	
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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM-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 TPO FB 115 or 135	JM-RSUA, 12-inch o.c.	-67.5
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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM-RSUA or JM-SP-UIA-TWO-PART, 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 TPO FB 115 or 135	JM-RSUA, 4-inch o.c. (full coverage)	-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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM TPO 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 TPO FB 115 or 135	JM TPO WBMA	-345.0

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

System No.	Deck (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)	Type	Attach	
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	CR-20	(Optional) Additional layers of base insulation	CR-20	JM TPO FB 115 or 135	JM TPO 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	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	JM TPO FB 115 or 135	JM TPO WBMA	-105.0
JM TPO FB 150 OR 175 APPLICATIONS:									
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 TPO FB 150 or 175	Hot asphalt	-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 TPO FB 150 or 175	Hot asphalt	-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	Self-Adhering	-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	Self-adhering	-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	Self-Adhering	-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	Self-adhering	-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	Self-Adhering	-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	Self-Adhering	-105.0

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

System No.	Deck (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)	Type	Attach	
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	Self-Adhering	-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	Self-Adhering	-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	Self-Adhering	-120.0
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	Self-adhering	-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	Self-Adhering	-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	Self-adhering	-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	Self-adhering	-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	CR-20	Min. 0.25-inch Invinsa Roof Board	CR-20	JM TPO SA – 60 MIL	Self-Adhering	-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	CR-20	(Optional) Additional layers of base insulation	CR-20	JM TPO SA – 60 MIL	Self-Adhering	-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	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	JM TPO SA – 60 MIL	Self-Adhering	-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 TPO FB 150 or 175 / hot asphalt	-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 TPO FB 150 or 175 / hot asphalt	-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 TPO FB 150 or 175 / hot asphalt	-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 TPO FB 150 or 175 / hot asphalt	-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 TPO FB 150 or 175 / hot asphalt	-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 TPO FB 150 or 175 / hot asphalt	-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 TPO FB 150 or 175 / hot asphalt	-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 TPO FB 150 or 175 / hot asphalt	-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 TPO FB 150 or 175 / hot asphalt	-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 TPO FB 150 or 175 / hot asphalt	-217.5
C-92	Min. 2,500 psi structural concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	BP-AA, SBS-AA, SBS-TA	JM TPO FB 150 or 175 / hot asphalt	-217.5

**TABLE 3C: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, PLATE-BONDED ROOF COVER**

System No.	Deck (Note 1)	Insulation Layer (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 bonded to JM TPO RhinoPlates with 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 ft ² (6 parts per 4 x 8 ft board)	JM TPO 60, 72 or 80 bonded to JM TPO RhinoPlates with 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 bonded to JM TPO RhinoPlates with 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 bonded to JM TPO RhinoPlates with 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 ft ² (8 parts per 4 x 8 ft board)	JM TPO 60, 72 or 80 bonded to JM TPO RhinoPlates with 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 ft ² (12 parts per 4 x 8 ft board) Fasteners are 6-, 24- and 42-inches from the board's long edge and 12-, 36-, 60- and 84-inches from the board's short edge.	JM TPO 60, 72 or 80 bonded to JM TPO RhinoPlates with 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 ft ² (15 parts per 4 x 8 ft board) Fasteners are 6-, 24- and 42-inches from the board's long edge and 12-, 30-, 48-, 66- and 84-inches from the board's short edge.	JM TPO 60, 72 or 80 bonded to JM TPO RhinoPlates with 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 bonded to JM TPO RhinoPlates with 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 ft ² (6 parts per 4x8 ft board per FM LPDS 1-29)	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 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.	-45.0*

**TABLE 3C: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, PLATE-BONDED ROOF COVER**

System No.	Deck (Note 1)	Insulation Layer (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: 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)
			Type	Attach	
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 TPO FB 115 or 135	JM-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 TPO FB 115 or 135	JM-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 TPO FB 115 or 135	JM-RSUA, 12-inch o.c.	-67.5

TABLE 4B: 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)
			Type	Attach	
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 TPO FB 115 or 135	JM-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 TPO FB 115 or 135	JM-RSUA, 4-inch o.c. (full coverage)	-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 45, 60, 72 or 80	JM LVOC MA (TPO&EPDM)	-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 TPO FB 115 or 135	JM-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 45, 60, 72 or 80	JM LVOC MA (TPO&EPDM)	-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 TPO FB 115 or 135	JM-RSUA, 4-inch o.c. (full coverage)	-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 TPO FB 115 or 135	JM-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 TPO FB 115 or 135	JM-RSUA, 4-inch o.c. (full coverage)	-290.0

**TABLE 4C: 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)
				Type	Attach	
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 TPO FB 115 or 135	JM-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 TPO FB 115 or 135	JM-RSUA, 4-inch o.c. (full coverage)	-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 TPO FB 115 or 135	JM-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 TPO FB 115 or 135	JM-RSUA, 4-inch o.c. (full coverage)	-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)	Type	Attach	
JM TPO APPLICATIONS:								
G-1.	Existing poured gypsum or gypsum plank	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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-105.0
G-2.	Existing poured gypsum or gypsum plank	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 45, 60, 72 or 80	JM TPO WBMA	-105.0
G-3.	Existing poured gypsum or gypsum plank	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 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-112.5
G-4.	Existing poured gypsum or gypsum plank	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	CR-20	(Optional) Min. 0.25-inch DensDeck	CR-20	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-105.0
G-5.	Existing poured gypsum or gypsum plank	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	CR-20	(Optional) Additional layers of base insulation	CR-20	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-217.5
JM TPO FB APPLICATIONS:								
G-6.	Existing poured gypsum or gypsum plank	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 TPO FB 115 or 135	JM TPO WBMA	-105.0
G-7.	Existing poured gypsum or gypsum plank	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	CR-20	(Optional) Additional layers of base insulation or Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	JM TPO FB 115 or 135	JM TPO WBMA	-105.0

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

System No.	Substrate (Notes 1 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf)
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Type	Attach	
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 45, 60, 72 or 80	JM TPO WBMA, JM MBA (TPO&EPDM)	-112.5
R-2	Existing asphaltic BUR or granule-surfaced modified bitumen over gypsum deck	(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 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-45.0
R-3	Existing asphaltic BUR or granule-surfaced modified bitumen over wood, steel, cementitious wood fiber or gypsum deck	(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 45, 60, 72 or 80	JM TPO WBMA	-45.0
R-4	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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-75.0
R-5	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 45, 60, 72 or 80	JM TPO WBMA	-75.0
R-6	Existing asphaltic BUR or granule-surfaced modified bitumen over wood, steel or cementitious wood fiber	(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 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-105.0
R-7	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	(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 45, 60, 72 or 80	JM TPO WBMA	-195.0
R-8	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	(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 45, 60, 72 or 80	JM LVOC MA (TPO&EPDM)	-217.0
R-9	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-247.5

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

System No.	Substrate (Notes 1 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf)
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Type	Attach	
R-10	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	0.5-inch SeparatoR CGF or SeparatoR FR	JM-OSFA	None	N/A	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-322.5
R-11	Existing asphaltic BUR or granule-surfaced modified bitumen over gypsum deck	(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 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-45.0
R-12	Existing asphaltic BUR or granule-surfaced modified bitumen over wood, steel, cementitious wood fiber or gypsum deck	(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 45, 60, 72 or 80	JM TPO WBMA	-45.0
R-13	Existing asphaltic BUR or granule-surfaced modified bitumen over wood, steel or cementitious wood fiber	(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 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-105.0
R-14	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	(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 45, 60, 72 or 80	JM TPO WBMA	-195.0
R-15	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	(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 45, 60, 72 or 80	JM LVOC MA (TPO&EPDM)	-217.0
R-16	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-247.5
R-17	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	0.5-inch SeparatoR CGF or SeparatoR FR	JM-RSUA	None	N/A	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-322.5
R-18	Existing asphaltic BUR or granule-surfaced modified bitumen over gypsum deck	(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 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-45.0

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

System No.	Substrate (Notes 1 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf)
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Type	Attach	
R-19	Existing asphaltic BUR or granule-surfaced modified bitumen over wood, steel, cementitious wood fiber or gypsum deck	(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 45, 60, 72 or 80	JM TPO WBMA	-45.0
R-20	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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-105.0
R-21	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 45, 60, 72 or 80	JM TPO WBMA	-105.0
R-22	Existing asphaltic BUR or granule-surfaced modified bitumen over wood, steel or cementitious wood fiber	(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 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-105.0
R-23	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 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-120.0
R-24	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	(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 45, 60, 72 or 80	JM TPO WBMA	-195.0
R-25	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	(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 45, 60, 72 or 80	JM LVOC MA (TPO&EPDM)	-217.0
R-26	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	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 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-247.5
R-27	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	0.5-inch SeparatoR CGF or SeparatoR FR	UIA-TWO-PART	None	N/A	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-322.5

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

System No.	Substrate (Notes 1 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf)
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Type	Attach	
R-28	Existing asphaltic BUR or mineral surface cap sheet	Min. 0.25-inch DensDeck	CR-20	N/A	N/A	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM)	-105.0
R-29	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	CR-20	(Optional) Additional layers of base insulation	CR-20	JM TPO 45, 60, 72 or 80	JM MBA (TPO&EPDM) or JM LVOC MA (TPO&EPDM)	-217.5
JM TPO FB APPLICATIONS:								
R-30	Existing asphaltic BUR or granule-surfaced modified bitumen over wood, steel, cementitious wood fiber or gypsum deck	(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 FB 115 or 135	JM TPO WBMA or JM-RSUA, 4-inch o.c. (full coverage)	-45.0
R-31	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	(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 FB 115 or 135	JM-RSUA, 4-inch o.c. (full coverage)	-112.5
R-32	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	(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 FB 115 or 135	JM TPO WBMA	-187.5
R-33	Existing asphaltic BUR or granule-surfaced modified bitumen over wood, steel, cementitious wood fiber or gypsum deck	(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 FB 115 or 135	JM TPO WBMA or JM-RSUA, 4-inch o.c. (full coverage)	-45.0
R-34	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	(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 FB 115 or 135	JM-RSUA, 4-inch o.c. (full coverage)	-112.5
R-35	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	(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 FB 115 or 135	JM TPO WBMA	-187.5

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

System No.	Substrate (Notes 1 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf)
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Type	Attach	
R-36	Existing asphaltic BUR or granule-surfaced modified bitumen over wood, steel, cementitious wood fiber or gypsum deck	(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 FB 115 or 135	JM TPO WBMA or JM-RSUA, 4-inch o.c. (full coverage)	-45.0
R-37	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 TPO FB 115 or 135	JM TPO WBMA	-105.0
R-38	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	(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 FB 115 or 135	JM-RSUA, 4-inch o.c. (full coverage)	-112.5
R-39	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	(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 FB 115 or 135	JM TPO WBMA	-187.5
R-40	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	CR-20	(Optional) Additional layers of base insulation or Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	JM TPO FB 115 or 135	JM TPO WBMA	-105.0
JM TPO SA APPLICATIONS:								
R-41	Existing asphaltic BUR or granule-surfaced modified bitumen over gypsum deck	(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	Self-adhering	-45.0
R-42	Existing asphaltic BUR or granule-surfaced modified bitumen over wood, steel or cementitious wood fiber	(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	Self-adhering	-90.0
R-43	Existing asphaltic BUR or granule-surfaced modified bitumen over structural concrete	(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	Self-adhering	-120.0

**TABLE 6B: RECOVER OVER EXISTING METAL PANEL ROOF
SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, PLATE-BONDED ROOF COVER**

System No.	Deck (Note 1)	Insulation Layer (Note 13)	Attachment		Roof Cover (Note 15B)	MDP (psf)
			Fasteners (Note 11)	Density		
RHINO BOND SYSTEMS:						
R-44	Existing wood, steel or concrete deck atop min. 16 ga. (0.0598") purlins or steel supports spaced max. 5 ft 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	Preliminary Securement: UltraFast Plate-Bonded Securment: JM Purlin Fasteners with JM TPO RhinoPlates	Insulation preliminarily secured with fasteners/plates in Note 2. JM Purlin Fasteners with JM TPO Rhino Plates spaced 6-inch o.c. at every-other structural steel support (max. 120-inch o.c.)	JM TPO 60, 72 or 80 bonded to JM TPO RhinoPlates with RhinoBond Portable Bonding Tool, per manufacturer's published instructions.	-45.0
R-45	Existing wood, steel or concrete deck atop min. 16 ga. (0.0598") purlins or steel supports spaced max. 5 ft 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	Preliminary Securement: UltraFast Plate-Bonded Securment: JM Purlin Fasteners with JM TPO RhinoPlates	Insulation preliminarily secured with fasteners/plates in Note 2. JM Purlin Fasteners with JM TPO Rhino Plates spaced 18-inch o.c. at every structural steel support (max. 60-inch o.c.)	JM TPO 60, 72 or 80 bonded to JM TPO RhinoPlates with RhinoBond Portable Bonding Tool, per manufacturer's published instructions.	-45.0
R-46	Existing wood, steel or concrete deck atop min. 16 ga. (0.0598") purlins or steel supports spaced max. 5 ft 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	Preliminary Securement: UltraFast Plate-Bonded Securment: JM Purlin Fasteners with JM TPO RhinoPlates	Insulation preliminarily secured with fasteners/plates in Note 2. JM Purlin Fasteners with JM TPO Rhino Plates spaced 12-inch o.c. at every structural steel support (max. 60-inch o.c.)	JM TPO 60, 72 or 80 bonded to JM TPO RhinoPlates with RhinoBond Portable Bonding Tool, per manufacturer's published instructions.	-67.5
R-47	Existing wood, steel or concrete deck atop min. 16 ga. (0.0598") purlins or steel supports spaced max. 5 ft 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	Preliminary Securement: UltraFast Plate-Bonded Securment: JM Purlin Fasteners with JM TPO RhinoPlates	Insulation preliminarily secured with fasteners/plates in Note 2. JM Purlin Fasteners with JM TPO Rhino Plates spaced 6-inch o.c. at every structural steel support (max. 60-inch o.c.)	JM TPO 60, 72 or 80 bonded to JM TPO 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**

System No.	Deck (Note 1)	Insulation (Note 13)			Roof Cover (Note 15A)			MDP (psf)
		Base Layer	Top Layer	Attach (Note 5)	Membrane	Fasteners (Note 11)	Attachment	
R-48	Existing wood, steel or concrete deck atop min. 16 ga. (0.0598") purlins or steel supports spaced max. 5 ft 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-49	Existing wood, steel or concrete deck atop min. 16 ga. (0.0598") purlins or steel supports spaced max. 5 ft 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
R-50	Existing wood, steel or concrete deck atop min. 16 ga. (0.0598") purlins or steel supports spaced max. 5 ft 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**

System No.	Substrate (Notes 1 & 12)	Roof Cover (Note 15)		MDP (psf)
		Type	Attach	
R-51	Existing asphaltic granule surface cap sheet	JM TPO FB 115 or 135	JM-RSUA, 12-inch o.c.	-45.0
R-52	Existing granule-surfaced, SBS modified bitumen roof system over structural concrete deck	JM TPO FB 115 or 135	JM-RSUA, 6-inch o.c.	-165.0