

UL Evaluation Report



UL ER10167-01

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UL Category Code: ULFB

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DIVISION: 07 00 00 THERMAL AND MOISTURE PROTECTION

Sub-level 2: 07 50 00 – Membrane Roofing

Sub-level 3: 07 54 00 – Thermoplastic Membrane Roofing

Sub-level 4: 07 54.23 – Thermoplastic-Polyolefin Roofing

COMPANY:

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1. SUBJECT: JM TPO 45, JM TPO 60, JM TPO 72, JM TPO 80

JM TPO Reflexsa

JM TPO FB 115, JM TPO FB 135, JM TPO FB 150, JM TPO FB 175

JM TPO SA

2. SCOPE OF EVALUATION

- 2021, 2018, 2015, 2012, 2009 and 2006 *International Building Code®* (IBC)
- 2021, 2018, 2015, 2012, 2009 and 2006 *International Residential Code®* (IRC)
- ICC ES Acceptance Criteria for Roof-Covering Systems (AC75), Dated July 2010 (Editorially revised April 2021)
- ICC ES Acceptance Criteria for Quality Documentation (AC10), Dated January 2019

The products were evaluated for the following properties:

- Roofing Systems for Exterior Fire Exposure (UL790, ASTM E108)
- Roofing Systems, Wind Uplift Resistance (FM4474)
- Physical Properties (ASTM D6878, ASTM G155)
- Impact Resistance (FM4470)
- Foot Traffic Resistance (FM4470)

3. REFERENCED DOCUMENTS

- UL790 (ASTM E108), Standard Test Methods for Fire Tests of Roof Coverings
- ASTM D6878, Standard Specification for Thermoplastic Polyolefin Based Sheet Roofing
- ASTM G155, Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials
- FM4470, Single-Ply, Polymer-Modified Bitumen Sheet, Built-Up Roof (BUR) and Liquid Applied Roof Assemblies for use in Class 1 and Noncombustible Roof Deck Construction
- FM4474, Evaluating the Simulated Wind Uplift Resistance of Roof Assemblies Using Static Positive and/or Negative Differential Pressures
- ICC ES Acceptance Criteria for Membrane Roof-Covering Systems (AC75), Dated July 2010 (Editorially revised April 2021)
- ICC ES Acceptance Criteria for Quality Documentation (AC10), Dated January 2019

4. USES

The JM TPO, JM TPO SA, JM TPO FB and JM TPO Reflexsa single-ply roof membranes are used as roof coverings in mechanically fastened or fully adhered Class A, B or C roof covering assemblies installed on combustible or non-combustible roof decks.

5. PRODUCT DESCRIPTION

The JM TPO, JM TPO SA, JM TPO FB and JM TPO Reflexsa membrane roofing systems described in this report consist of single-ply roofing membranes, insulation where used, barrier board or slip sheet where used, flashing, mechanical fasteners and adhesives that are installed on a combustible or non-combustible roof deck.

The roofing assemblies incorporating the membranes comply with the following properties when installed as described in this report.

Fire Classification: Roofing assemblies covered under this report have been tested for fire classification Class A, B or C in accordance with UL790 or (ASTM E108), as required by Section 1505.1 of the IBC and Section R902.1 of the IRC.

Wind Uplift Resistance: Roofing assemblies covered under this report have been tested for wind uplift resistance in accordance with FM4474, and therefor qualify for use under Roofing membranes Section 1504.4.1 of the 2021 IBC and Section 1504.3.1 of the 2018, 2015, 2012, 2009 and 2006 IBC.

The roofing assemblies shall be designed to resist the design wind load pressures for components and cladding in accordance with Section 1609 of the IBC and Section R905.1 of the IRC.

Physical Properties: The roofing membranes covered under this Report have been tested for physical properties in accordance with ASTM D6878 and ASTM G155, and therefore qualify for use under Section 1507.12.2 and Section 1504.7 of the 2021 IBC, Section 1507.13.2 and Section 1504.6 of the 2018, 2015, 2012, 2009 and 2006 IBC and Section R905.13.2 of the IRC.

Impact Test: The single-ply roofing membranes covered under this Report have been tested for impact resistance in accordance with "Resistance to Foot Traffic Test" in Section 4.6 of FM4470 and therefore qualify for use under Section 1504.8 of the 2021 IBC and Section 1504.7 of the 2018, 2015, 2012, 2009 and 2006 IBC.

5.1 Membranes:

5.1.1 JM TPO: Thermoplastic, polyester reinforced membrane manufactured using an ultraviolet-resistance thermoplastic polyolefin formulation.

JM TPO 45 is a nominal 45 mil membrane and available in a white weathering surface (grey or tan are special order). The membrane is supplied in 500-ft.², 600-ft.², 800-ft.², 1000-ft.² or 1200-ft.² rolls.

JM TPO 60 is a nominal 60 mil membrane and available in a white, grey or tan weathering surface. The membrane supplied in 500-ft.², 600-ft.², 800-ft.², 1000-ft.², or 1200-ft.² rolls.

JM TPO 72 is a nominal 72 mil membrane and available in a white, grey or tan weathering surface. The membrane is supplied in 750-ft.² rolls and is a special order item.

JM TPO 80 is a nominal 80 mil membrane and available in a white weathering surface (grey or tan are special order). The membrane is supplied in 375-ft.², 450-ft.², 600-ft.², 750-ft.² or 900-ft.² rolls.

Reflexsa is a nominal 60 mil membrane and available in a bright white weathering surface. The membrane is supplied in 500-ft.² and 1000-ft.² rolls and is a special order item.

5.1.2 JM TPO FB: Thermoplastic polyolefin membrane with a reinforced polyester fabric and integral polyester fleece backing.

JM TPO FB 115 is a nominal 60 mil membrane and available in white weathering surface (grey or tan are special order). The membrane is supplied in 1000-ft.² rolls.

JM TPO FB 135 is a nominal 80 mil membrane and available in white weathering surface (grey or tan are special order). The membrane is supplied in 500-ft.² rolls.

JM TPO FB 150 is a nominal 60 mil membrane and available in white weathering surface (grey or tan are special order). The membrane is supplied in 750-ft.² rolls.

JM TPO FB 175 is a nominal 80 mil membrane and available in white weathering surface (grey or tan are special order). The membrane is supplied in 500-ft.² rolls.

5.1.3 JM TPO SA is a nominal 60 mil. self-adhered membrane and available in white weathering surface (grey or tan are special order). The membrane is supplied in 1000 ft² rolls.

5.2 Insulation:

Foam plastic insulation when used shall have a flame spread index of not more than 75 when tested at the maximum thickness intended for the use in accordance with UL723 or ASTM E84 to qualify for use under Section 2603.3 and Exception 3 of the 2021, 2018 and 2015 IBC or under Section R906.1 of the 2021 IRC the foam plastic insulation when installed as part of a Class A, B or C roof-covering assembly, provided the assembly complies with UL1256. To qualify for use under Section 2603.3 and Exception 3 of the 2012, 2009 and 2006 IBC or Section R906.1 of the 2018, 2015, 2012 and 2009 IRC the foam plastic insulation when installed as part of a Class A, B or C roof-covering assembly, provided the assembly complies with FM4450 or UL1256. To qualify for use under Section 2603.4.1.5 of the 2021, 2018 and 2015 IBC, a thermal barrier is not required for foam plastic insulation that is part of a Class A, B or C roof-covering assembly, provided the assembly with foam plastic insulation complies with UL1256. To qualify for use under Section 2603.4.1.5 of the 2012, 2009 and 2006 IBC, a thermal barrier is not required for foam plastic insulation that is part of a Class A, B or C roof-covering assembly, provided the assembly with foam plastic insulation complies with FM4450 or UL1256.

5.3 Fasteners:

Fasteners used to mechanically fasten insulation and membranes to the roof deck, shall be corrosion resistant and shall be one of the fasteners identified in Note 2 in the Appendix of this Report.

5.4 Adhesive:

The adhesive used to adhere Johns Manville's TPO membranes to the insulation or roofing substrate shall be as noted in the Appendix of this Report.

5.5 Asphalt:

Hot roofing asphalt, when specified in the roofing assemblies shall conform to ASTM D312, Type III or Type IV.

6. INSTALLATION

Johns Manville single ply membranes shall be installed in accordance with the applicable code, this report and the manufacturer's published installation instructions. The membranes shall be installed in accordance with Section 1507.12 of the 2021 IBC, Section 1507.13 of the 2018, 2015, 2012, 2009 and 2006 IBC or Section R905.13 of the IRC as applicable, except as noted in this report.

The manufacturer's published installation instructions shall be available at all times on the jobsite during installation.

The slope of the roof on which the membranes are installed shall be a minimum of 1/4:12 (2% slope) and shall not be more than the maximum slope indicated in the Tables in the Appendix of this Report.

Penetrations and terminations of the roof covering shall be flashed and made watertight in accordance with the requirements of the membrane manufacturer, Section 1503.2 of the IBC or Section R903.2 of the IRC and applicable code.

7. Fire Classification

- 7.1 New Construction:** Roof assemblies utilizing Johns Manville JM TPO 45, JM TPO 60, JM TPO 72, JM TPO 80, JM TPO SA, JM TPO Reflexsa, JM TPO FB 115, JM TPO FB 135, JM TPO FB 150 and JM TPO FB 175 thermoplastic single ply roof coverings are described in UL Certification Category for Roofing Systems, ([TGFU](#)), File R10167 and in Tables provided in the Appendix.
- 7.2 Reroofing:** The existing roof shall be inspected in accordance with the provisions and limitations of Section 1512 of the 2021 IBC, Section 1511 of the 2018 and 2015 IBC, Section 1510 of the 2012, 2009 and 2006 or Section R908 of the 2021, 2018 and 2015 IRC, Section R907 of the 2012, 2009 and 2006 IRC, as applicable. The existing roof deck shall be inspected to verify that the structure to be reroofed is structurally sound and adequate to support and secure the roofing membrane. Prior to installation of new roof coverings, inspection by and approval from the code official having jurisdiction is required.

Johns Manville JM TPO membranes may be installed over existing Classified Class A, B or C roofing systems as described in the UL Certification Category for Roofing Systems ([TGFU](#)), File R10167 under the heading Class A, B and C (TPO) for Maintenance and Repair for applicable coverage and details of the roof assemblies and in the Tables in the Appendix of this Report.

Class A, B or C roof coverings may be installed over existing classified roof assemblies under the following conditions without additional roof classification tests, provided the resulting classification is the lower of the new and existing roof classifications under the following conditions:

- New uninsulated roof coverings installed only over existing uninsulated assemblies.
- New insulated roof coverings installed over existing uninsulated assemblies only.

8. Wind Resistance

- 8.1 New Construction:** The allowable wind uplift pressures for the roof assemblies are noted in the Tables in Appendix of this Report. Metal edge securement for all systems shall be designed in accordance with ANSI/SPRI ES-1, complying with Section 1504.6 of the 2021 IBC, Section 1504.5 of the 2018, 2015, 2012, 2009 and 2006 IBC. For certifications of metal edge securement systems in accordance with ANSI/SPRI ES-1, See UL Product iQ™ database Roof-edge Systems, Metal for Use with Low-slope Roofing Systems ([TGJZ](#)).
- 8.2 Reroofing:** Roof covering systems employing mechanical fasteners shall be qualified, to the satisfaction of the code official, as to the adequacy of fasteners penetrating through existing roof coverings into structural substrates. Since the composition and/or conditions of any particular underlying existing roofing materials may vary and reroofing material may vary, reroofing with adhered systems is outside the scope of this report.

9. CONDITIONS OF USE

The Johns Manville single ply roofing membranes described in this Report comply with, or are suitable alternatives to, what is specified in those codes listed in Section 2 of this Report, subject to the following conditions:

- 9.1** Materials and methods of installation shall comply with this Report and the manufacturer's published installation instructions. In the event of a conflict between the installation instructions and this Report, this Report governs.
- 9.2** Johns Manville thermoplastic single ply roofing membranes shall be installed by professional roofing contractors trained and approved by the manufacturer.

- 9.3** See UL Product iQ™ database Roofing Systems ([TGFU](#)) File R10167. Also refer to the Tables in the Appendix of this Report.
- 9.4** Above-deck thermal insulation board shall comply with the applicable standards listed in Table 1508.2 in Section 1508.2 of the IBC or Table R906.2 in Section R906 of the IRC.
- 9.5** Wind uplift pressures on any roof area, including edges and corner zones shall not exceed the allowable wind pressure for the roof covering installed in that particular area. Refer to the Tables in the Appendix of this Report.
- 9.6** For assemblies containing mechanical attachment for the perimeter and corner roof zones 2 and 3, the attachment density may be increased by a qualified design professional, as necessary, to meet the design pressure requirements in these areas.
- 9.7** The tested wind uplift pressures listed in the Tables in the Appendix of this Report are for the roof systems only. The deck and framing to which the roofing system is attached shall be designed for the applicable components and cladding, wind loads in accordance with the applicable codes.
- 9.8** When application is over an existing roof, documentation of the wind uplift resistance of the composite roof construction shall be submitted to the code official.
- 9.9** The metal edge securement shall be designed and installed for wind loads in accordance with Chapter 16 of the IBC and test for resistance in accordance with Test Methods RE-1, RE-2 and RE-3 of ANSI/SPRI ES-1. The basic wind speed, V , shall be determined from Figures 1609.3(1) through 1609.3(12) of the 2021 IBC or Figures 1609.3(1) through 1609.3(8) of the 2018 IBC as applicable. The ultimate wind speed, V_{ult} wind speed shall be determined from Figures 1609.3(1) through 1609.3(3) of the 2015 IBC or Figure 1609A, 1609B, or 1609C of the 2012 IBC as applicable. The basic wind speed shall be determined from Figure 1609 of the 2009 and 2006 IBC as applicable. The ultimate design wind speed shall be determined from Figures R301.2(2) and R301.2.1.1 of the 2021 IRC or Figures R301.2(5)A and R301.2(5)B of the 2018 IRC or Figures R301.2(4)A and R301.2(4)B of the 2015 IRC. The basic wind speed shall be determined from Figures R301.2(4)A through R301.2(4)C of the 2012 IRC as applicable or Figure R301.2(4) of the 2009 and 2006 IRC.
- 9.10** The Johns Manville thermoplastic single ply membranes covered under this report are produced under the UL LLC Classification and Follow-Up Service Program, which includes audits in accordance with quality elements of ICC-ES Acceptance Criteria for Quality Documentation, AC 10.

10. SUPPORTING EVIDENCE

- 10.1** Data in accordance with ICC-ES Acceptance Criteria for Membrane Roof-Covering Systems, AC75.
- 10.2** Manufacturer's descriptive product literature, including installation instructions.
- 10.3** UL Classification Reports in accordance with UL790. See UL Product Certification Category for Roofing Systems (TGFU), File R10167.
- 10.4** Data in accordance with FM4474.
- 10.5** Data in accordance with FM4470.
- 10.6** Data in accordance with ASTM D6878 and ASTM G155.

10.7 Documentation of quality system elements in accordance with ICC-ES Acceptance Criteria for Quality Documentation, AC10.

11. IDENTIFICATION

The Johns Manville thermoplastic single ply membranes described in this evaluation report are identified by a marking bearing the report holder's name (Johns Manville), the plant identification (if required), the product designation, the UL Classification Mark, and the evaluation report number UL ER10167-01. The validity of the evaluation report is contingent upon this identification appearing on the product or UL Classification Mark certificate.

12. USE OF UL EVALUATION REPORT

- 12.1** The approval of building products, materials or systems is under the responsibility of the applicable authorities having jurisdiction.
- 12.2** UL Evaluation Reports shall not be used in any manner that implies an endorsement of the product, material or system by UL.
- 12.3** The current status of this report, as well as a complete directory of UL Evaluation Reports may be found at UL.com via our UL Product iQ™ database:

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APPENDIX 1: ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE

Table	Deck	Application	Type	Description
1A-1	Wood	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover
1A-2	Wood	New, Reroof (Tear-Off), Recover	C-2	Mechanically Attached Insulation, Plate-Bonded Roof Cover
1B	Wood	New, Reroof (Tear-Off), Recover	D	Insulated, Mechanically Attached Roof Cover
2A	Steel or Conc.	New, Reroof (Tear-Off), Recover	B	Mechanically Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover
2B-1	Steel or Conc.	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover
2B-2	Steel or Conc.	New, Reroof (Tear-Off), Recover	C-2	Mechanically Attached Insulation, Plate-Bonded or Strip-Bonded Roof Cover
2C	Steel or Conc.	New, Reroof (Tear-Off), Recover	D	Insulated, Mechanically Attached Roof Cover
3A	Steel	New, Reroof (Tear-Off)	B	Mechanically Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover
3B-1	Steel	New, Reroof (Tear-Off)	C-1	Mechanically Attached Insulation, Bonded Roof Cover
3B-2	Steel	New, Reroof (Tear-Off), Recover	C-2	Mechanically Attached Insulation, Plate-Bonded or Strip-Bonded Roof Cover
3C	Steel	New, Reroof (Tear-Off), Recover	D	Insulated, Mechanically Attached Roof Cover
4A-1	Concrete	New, Reroof (Tear-Off), Recover	A-1a	Bonded Insulation, Bonded Roof Cover
4A-2	Concrete	New, Reroof (Tear-Off)	A-1b	Bonded Temp Roof, Bonded Insulation, Bonded Roof Cover
4B	Concrete	New, Reroof (Tear-Off)	C-1	Mechanically Attached Insulation, Bonded Roof Cover
4C	Concrete	New, Reroof (Tear-Off), Recover	D	Insulated, Mechanically Attached Roof Cover
5A	LWIC	New, Reroof (Tear-Off)	A	Bonded Insulation, Bonded Roof Cover
5B-1	LWIC	New, Reroof (Tear-Off)	E-1a	Non-Insulated, Mechanically Attached Base Sheet, Bonded Membrane
5B-2	LWIC	New, Reroof (Tear-Off), Recover	E-1b	Non-Insulated, Mechanically Attached or Welded Roof Cover
5C	LWIC	New, Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover
6A	Gypsum	New or Reroof (Tear-Off)	A	Bonded Insulation, Bonded Roof Cover
6B	Gypsum	New, Reroof (Tear-Off)	E	Non-Insulated, Mechanically Attached Base Sheet, Bonded Membrane
6C	Gypsum	New, Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover
7A	CWF	New, Reroof (Tear-Off)	A	Bonded Insulation, Bonded Roof Cover
8A	Various	Recover	A-1	Bonded Insulation, Bonded Roof Cover
8B	Various	Recover Over Existing Metal Roof	C-2	Mech. Attached Insulation, Plate-Bonded Roof Cover
8C	Various	Recover Over Existing Metal Roof	D	Insulated, Mechanically Attached Roof Cover
8D	Various	Recover	F	Non-Insulated, Bonded Roof Cover

The following notes apply to the systems outlined herein:

1. Roof decks shall be in accordance with IBC or IRC requirements to the satisfaction of the AHJ. Wind load resistance of the roof deck shall be documented through proper codified and/or FBC Approval documentation. Wind load resistance of the roof deck shall be documented through proper codified Approval documentation.
2. Unless otherwise noted, fasteners and stress plates for insulation attachment shall be as follows. Fasteners shall be of sufficient length for the following engagements:
 - Steel Deck: UltraFast #12 or All Purpose #14 with UltraFast 3 in. Round Metal Plates or UltraFast Square Metal Plates. Minimum ¾-inch steel penetration, engage the top flute of the steel deck.
 - Concrete Deck: All Purpose #14 with UltraFast 3 in. Round Metal Plates or UltraFast Square Metal Plates or JM Structural Concrete Deck Fasteners and Plates. Minimum 1-inch embedment. Fasteners installed with a pilot hole in accordance with the fastener manufacturer's published installation instructions.
3. Minimum 200 psi, minimum 2-inch thick lightweight insulating concrete may be substituted for rigid insulation board for System Type D (mechanically attached membrane), whereby the membrane fasteners are installed through the LWIC to engage the structural steel or concrete deck. The structural deck shall be of equal or greater configuration to the steel and concrete deck listings.
4. Preliminary insulation attachment for System Type D = Minimum four fasteners per 4 x 8 ft board or minimum two fasteners per 4 x 4 ft board.
5. 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 [HA]: Full coverage at 20-25 lbs./sq.
 - JM Two-Part Urethane Insulation Adhesive [JM TWO-PART UIA]: Continuous 0.75-inch ribbons, 12-inch o.c. *Note: JM Green Two-Part Urethane Insulation Adhesive may be used where TWO-PART UIA is referenced*
 - JM Two-Part Urethane Insulation Adhesive Canister [JM TWO-PART UIA-C]: Continuous 0.75 to 1-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 One-Step Foamable Adhesive [JM-OSFA]: Continuous 0.75-inch ribbons, 12-inch o.c.
 - *Note: When multiple layers(s) of insulation and/or coverboard are installed in ribbon-applied adhesive, adhesive ribbons shall be staggered from layer-to-layer a distance of one-half the ribbon spacing.*
 - *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*
6. Bonded polyisocyanurate insulation boards shall be maximum 4 x 4 ft.
7. For System Type D, steel deck applications, the roof membrane shall be run with its length perpendicular to the steel deck flutes.
8. For Recover Applications using System Type D, the insulation is optional. Alternatively, min. 0.25-inch Invinsa, DensDeck, DensDeck Prime ,SECUROCK Gypsum-Fiber RoofBoard or 0.5-inch ProtectoR HD, ProtectoR HD FR may be used as a separator board, preliminarily attached prior to roof cover installation. The existing roof system shall be suitable for a recover application.

9. For adhered membrane systems, side laps shall be minimum 2-inch wide sealed with min. 1.5-inch heat weld. Adhesive application rates are as follows:

Membrane	Adhesive	M	Rate
JM TPO	JM TPO Membrane Adhesive (Solvent Based) [JM TPO MA-SB]	C	1.67 gal/square (½ applied to substrate and ½ applied to
JM TPO	JM TPO Membrane Adhesive (Low VOC) [JM TPO MA-LVOC]	C o	See systems below for rate (½ applied to substrate and ½ applied to membrane)
JM TPO	JM TPO Membrane Adhesive (Water Based) [JM TPO MA-WB]	W	1.10 gal/square
JM TPO	JM TPO Water Based Membrane Adhesive [JM TPO WB-MA]	C o	See systems below for rate (½ applied to substrate and ½ applied to membrane)
JM TPO	JM LVOC Membrane Adhesive (TPO & EPDM) [JM LVOC-MA]	C o	See systems below for rate (½ applied to substrate and ½ applied to membrane)
JM TPO	JM Membrane Bonding Adhesive (TPO & EPDM) [JM MBA]	C o	See systems below for rate (½ applied to substrate and ½ applied to membrane) or 50 to 90 ft ² /gal. Wet lay to
JM TPO FB	JM TPO Membrane Adhesive (Water Based) [JM TPO MA-WB]	W	0.83 to 1 gal/square
JM TPO FB	JM Roofing System Urethane Adhesive (JM-RSUA)	W	0.5 to 1-inch wide ribbons spaced as noted in tables herein.
JM TPO FB	JM TPO Water Based Membrane Adhesive [JM TPO WB-MA]	W	See system below for rate
JM TPO FB	JM Two-Part Urethane Insulation Adhesive Canister [JM TWO-PART UIA-C1]		Splatter applied at a rate of 0.32 gal/100 ft ²
JM TPO FB	ASTM D 312, Type IV Hot Asphalt [HA]	W	Fully Adhered within the EVT range at a rate of 25-40

10. Deck Details Key:

Concrete Deck	Min. $f'_c = 2,500$ psi at 28 days	
CWF Deck	Min. 2.5-inch thick Tectum I cementitious wood fiber panels bearing UL Certification Marking for Structural Cement-Fiber Units (CIYT)	
Steel Deck	Min. 22 ga, Wide Rib Deck (Type WR) conforming to ANSI/SDI-RD1.0 & FBC; 0.5% Vented for LWIC applications only. The following nomenclature is used to further describe the <i>As Tested</i> condition.	
	G<#>	Min. Grade <#> of Steel Deck
	L<#>	Max. span of <#> ft
Wood Deck	T<#>P	Min. <#>-inch thickness of the plywood
	T<#>O	Min. <#>-inch thickness of the OSB
	L<#>	Max. span of <#> inches
	N<#>	Min. 0.113-inch diameter x 2-3/8-inch ring shank nails spaced <#>-inch o.c. at all intermediate supports and at the perimeter of each board
	16S<#>	Min. 16 ga. staples, 1.5-inch x 1-inch crown spaced <#>-inch o.c. at all intermediate supports and at the perimeter of each board
	10d<#1>/<#2>	Joints staggered <#1> feet attached <#2>-inches o.c. using 10d ring shank nails at all supports
	8d<#1>/<#2>	Joints staggered <#1> feet attached <#2>-inches o.c. using 8d ring shank nails at all supports

11. One of any of the following cover boards may be used in the tables below where "Cover Board" is listed as an insulation layer.

<i>Cover Board</i>	<p>One layer of any of the following products:</p> <ul style="list-style-type: none"> -Georgia-Pacific Gypsum LLC DensDeck -Georgia-Pacific Gypsum LLC DensDeck Prime -JM Invinsa Roof Board -JM Invinsa FR Roof Board -JM ProtectoR HD -JM ProtectoR HD FR -JM SECUROCK Glass-Mat Roof Board -JM SECUROCK Gypsum-Fiber Roof Board -National Gypsum Co. DEXcell FA Glass Mat Roof Board -National Gypsum Co. DEXcell Glass Mat Roof Board -National Gypsum Co. DEXcell Cement Roof Board
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12. One or more layers of any of the following insulations may be used in the tables below where "INSULATION" or "Polyisocyanurate Insulation" is listed as an insulation layer.

<i>INSULATION</i>	<p>One of more layers in any combination of the following products:</p> <ul style="list-style-type: none"> -ENRGY 3 -ENRGY 3 AGF -ENRGY 3 CGF -ENRGY 3 FR -SeparatoR FR (See Note 13) -Fesco Board -Fesco Foam -Invinsa Roof Board -Invinsa FR Roof Board -Retro-Fit Board -RetroPlus Roof Board -SECUROCK Glass-Mat Roof Board -SECUROCK Gypsum-Fiber Roof Board
<i>Polyisocyanurate Insulation</i>	<ul style="list-style-type: none"> ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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

13. Min 0.5" thick SeparatoR FR insulation can be added in mechanically fastened roof cover, recover assemblies in place of min. 0.5" thick ENRGY 3 FR.

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

System No.	Deck (See Note 1 and 10)	Base Insulation Layer (See Note 12 and 13)	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
W-1	Min 3/4 in. plywood or wood plank at max 24 in. spans	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, loose laid	Min. 7/16-in. OSB	See Note 2	1 per 2 ft ²	JM TPO FB115 or 135	JM TPO MA-WB	90	A	1/2
W-2	Wood Deck (T19/32P, L24, 8d4/6)	(Optional) <i>INSULATION</i>	Min. 0.25-in. DensDeck	UltraFast #14 with UltraFast Metal Plates (Round or Square)	1 per 1.45 ft ²	JM TPO 45, 60 or 80	JM TPO MA-SB	90	A	3/4
						JM TPO MA-LVOC, 1.67 GAL/SQ.,			A	3/4
						JM TPO MA-WB, 0.83 gal/sq.			A	3/4
						JM TPO FB 115 or 135	JM TPO MA-WB, 0.83 gal/sq/		A	2
W-3	Wood Deck (T19/32P, L24, 8d4/6)	(Optional) <i>INSULATION</i>	Min. 3/8-in. SECUROCK Gypsum Fiber Roof Board	UltraFast #14 with UltraFast Metal Plates (Square)	1 per 1.45 ft ²	JM TPO 45, 60, or 80	JM TPO MA-SB	90	A	3/4
						JM TPO FB 115 or 135	JM TPO MA-WB, 0.83 gal/sq.		A	2

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

System No.	Deck (See Note 1 and 10)	Base Insulation Layer (See Note 12)	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type (See Note 11)	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
W-4	Wood Deck (T7/16O or T15/32P, L24)	(Optional) <i>INSULATION</i>	Min. 0.25-in. Invinsa Roof Board or min. 3/8-in. SECUROCK Gypsum Fiber Roof Board or	Min. 2-in. JM All Purpose Fasteners and JM TPO RhinoPlates	Attached 24-in. o.c. in rows spaced 4-ft; Fasteners secured through the deck into the structural wood supports. Fasteners should penetrate min. 1.5-in. into the wood supports.	JM TPO 60 or 80	Induction Welded to JM TPO RhinoPlates	75	A	1
			Min. 0.5-in. SeparatoR CGF or ProtectoR HD						A	1/2
			min. 3-in. ENRGY 3						C	1/2
W-5	Wood Deck (T7/16O or T15/32P, L24)	(Optional) <i>INSULATION</i>	<i>Cover Board</i>	Min. 2-in. JM All Purpose Fasteners and JM TPO RhinoPlates	Attached max. 18-in. o.c. into every-other wood joist spaced 4-ft o.c. Fasteners secured through the deck into the structural wood supports. Fasteners should penetrate min. 1.5-in. into the wood supports (1 fastener per 6 ft) ²	JM TPO 60 or 80	Induction Welded to JM TPO RhinoPlates	90	A	1
W-6	Wood Deck (T15/32P, L24, N6)	(Optional) <i>INSULATION</i>	Min. 0.25" Invinsa Roof Board, or min. 0.25" SECUROCK Gypsum Fiber Roof Board	Min. 2" JM All Purpose Fasteners and JM TPO RhinoPlates	Attached max. 24-in. o.c. through deck into wood structural supports in row max. 24-in. o.c. Fasteners should penetrate min. 1.5-in. into the wood supports. (1 fastener per 4 ft) ²	JM TPO 45, 60, or 80	Induction Welded to JM TPO RhinoPlates	105	A	1
			Min. 0.5-in. SeparatoR CGF or ProtectoR HD							1/2
W-7	Wood Deck (T15/32P, L24, N6)	(Optional) <i>INSULATION</i>	Min. 0.25" Invinsa Roof Board, or min. 0.25" SECUROCK Gypsum Fiber Roof Board	Min. 2" JM All Purpose Fasteners and JM TPO RhinoPlates	Secured 9-in. o.c. through deck into wood structural supports in rows spaced max. 48-in. o.c. Fasteners should penetrate min. 1.5-in. into the wood supports.	JM TPO 45, 60, or 80	Induction Welded to JM TPO RhinoPlates	120	A	1
			Min. 0.5-in. SeparatoR CGF or ProtectoR HD							1/2
W-8	Wood Deck (T15/32P, L24, N6)	(Optional) <i>INSULATION</i>	Min. 0.25" Invinsa Roof Board, or min. 0.25" SECUROCK Gypsum Fiber Roof Board	Min. 2" JM All Purpose Fasteners and JM TPO RhinoPlates	Secured 6-in. o.c. through deck into wood structural supports in rows spaced 48-in. o.c. Fasteners should penetrate min. 1.5-in. into the wood supports.	JM TPO 45, 60, or 80	Induction Welded to JM TPO RhinoPlates	225	A	1
			Min. 0.5-in. SeparatoR CGF or ProtectoR HD							1/2

**TABLE 1B: WOOD DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER
SYSTEM TYPE D: INSULATED, MECHANICALLY ATTACHED ROOF COVER (STRESS PLATES)**

System No.	Deck (See Note 1)	Insulation (See Note 12)		Roof Cover			Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Type	Attachment	Membrane	Fasteners	Attachment		Class	Max Incline (in.)
W-9	Wood Deck (T19/32P, L24, N6)	(Optional) <i>INSULATION</i> followed by min. 0.25" Invinsa FR Roof Board, 1/2-in. Protector HD FR, or min. 3/8-in. SECUROCK Gypsum-Fiber Roof Board,	Prelim. Attached	JM TPO 45, 60, or 80	JM APB Plates and High Load Fasteners	Fasteners spaced 4" o.c. within 6" wide laps; fastener rows spaced 114" o.c. Laps sealed with 1.5" heat weld.	75	A	1
		Min. 0.5-in. SeparatoR CGF or Protector HD, min. 1.5" ENRGY 3 CGF							1/2
W-10	Wood Deck (T19/32P, L24, 8d4/6)	(Optional) <i>INSULATION</i> followed by min. 1/2-in. Protector HD,	Prelim. Attached	JM TPO 45, 60, or 80	All Purpose Fasteners and JM High Load Plates	Fasteners spaced 6" o.c. within 6" wide laps; fastener rows spaced 90" o.c. Laps sealed with 1.5" heat weld.	75	A	1/2
		1/2-in. ProtectorR HD FR							A
W-11	Wood Deck (T19/32P, L24, N6)	(Optional) <i>INSULATION</i> followed by 1/2-in. Protector HD FR, or min. 3/8-in. SECUROCK Gypsum-Fiber Roof Board	Prelim. Attached	JM TPO 45, 60, or 80	JM High Load Fasteners and JM High Load Plates	Fasteners spaced 6" o.c. within 6" wide laps; fastener rows spaced 54" o.c. Laps sealed with 1.5" heat weld.	120	A	1
		Min. 0.5-in. Protector HD or SeparatoR CGF							A
W-12	Wood Deck (T19/32P, L24, 10d2/4)	(Optional) <i>INSULATION</i> followed by Min. 0.25-in. DensDeck	UltraFast #12 with UltraFast Metal Plates attached 1 per 6.4 ft ²	JM TPO 45, 60 or 80	JM High Load Fasteners and Plates	Fasteners spaced 6" o.c. at 6" wide laps spaced 90" o.c.	120	A	2

**TABLE 2A: STEEL or CONCRETE DECKS - NEW CONSTRUCTION or REROOF (Tear-Off) or RECOVER
SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER**

System No.	Deck (See Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Type	Fastener	Attach	Type	Attach	Type	Attach		Class	Max Incline (in.)
JM TPO APPLICATIONS:											
SC-1	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, ENRGY 3 25 PSI, 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	See Note 2	1 per 2 ft ²	Min. 0.5-in. RetroPlus Board	JM TWO-PART UIA	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	90	A	1/2
								JM TPO MA-LVOC, 1.67 gal/sq.		A	3/4
SC-2	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, ENRGY 3 25 PSI, 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	See Note 2	1 per 2 ft ²	Min. 0.5-inch RetroPlus Board	JM-RSUA	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	90	A	1/2
								JM TPO MA-LVOC, 1.67 gal/sq.		A	3/4
SC-3	Min. 2,500 psi concrete (New, Existing, or Recover) or Grade 33 steel Deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	All Purpose Fasteners or JM UltraFast Fasteners (Steel Deck Only) and JM UltraFast Plates (Round or Square) or Structural Concrete Deck Fasteners (concrete deck only) with JM UltraFast Metal Plates (round)	1 per 2 ft ²	Min. 0.5-inch JM RetroPlus Board	JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO 45, 60, or 80	JM MBA, 1.66 gal/sq.	90	A	1/4
SC-4	Min. 2,500 psi concrete or G33 steel deck	(optional) <i>INSULATION</i> followed by min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) or All Purpose Fasteners (concrete Deck only) with JM UltraFast Plates (Round and Square)	1 per 4 ft ²	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA or JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO 45, 60, or 80	JM MBA, 1.66 gal/sq. JM LVOC MA, 1.66 gal/sq.	90	A	1-1/2 3/4

TABLE 2A: STEEL or CONCRETE DECKS - NEW CONSTRUCTION or REROOF (Tear-Off) or RECOVER
SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER

System No.	Deck (See Note)	Base Insulation Layer			Top Insulation Layer		Roof Cover		Tested Wind	Fire Rating UL790/E108	
SC-5	Min. 2,500 psi concrete or G33, L6 steel deck	(optional) INSULATION followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) or All Purpose Fasteners (concrete Deck only) with JM UltraFast Plates (Round and Square)	1 per 1.33 ft ²	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA or JM TWO-PARTUIA or JM TWO-PART UIA-C	JM TPO 45, 60, or 80	JM MBA, 1.66 gal/sq JM LVOC MA, 1.66 gal/sq.	90	A	1-1/2 3/4
SC-6	Min. 2,500 psi concrete or G33, L6 steel deck	(optional) INSULATION followed by min. 1.5-inch ENRGY 3	Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) or All Purpose Fasteners (concrete Deck only) with JM UltraFast Plates (Round and Square)	1 per 1.78 ft ²	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA or JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO 45, 60, or 80	JM MBA, 1.66 gal/sq. JM LVOC MA, 1.66 gal/sq.	120	A	1-1/2 3/4
SC-7	Min. 2,500 psi concrete or G33, L6 steel deck	(optional) INSULATION followed by min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	UltraFast Fasteners (Steel Deck Only), All Purpose Fasteners, (Steel Deck Only) with JM UltraFast Plates (Square or Round) or All Purpose Fasteners or Structural Concrete Fasteners (Concrete Deck Only) with JM UltraFast Plates (Round)	1 per 2 ft ²	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA or JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO 45, 60, or 80	JM TPO WB-MA, 0.59-0.77 gal/sq.	135	A	2
JM TPO FB APPLICATIONS:											
SC-8	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, ENRGY 3 25 PSI, 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	See Note 2	1 per 2 ft ²	Additional layer(s) base insulation	Hot Asphalt	JM TPO FB 115 or 135	JM TPO MA-WB	90	A	1/2
SC-9 (Cont'd on next page)	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, ENRGY 3 25 PSI, 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	See Note 2	1 per 2 ft ²	Additional layer(s) base insulation	JM TWO-PART UIA	JM TPO FB 115 or 135	JM TPO MA-WB	90	A	1/2
SC-10	Min. 22 ga.,	Min. 2-in. ENRGY 3, ENRGY	See Note 2	1 per 4	Min. 0.25-in	JM TWO-	JM TPO FB	JM TPO MA-	75	A	2

TABLE 2A: STEEL or CONCRETE DECKS - NEW CONSTRUCTION or REROOF (Tear-Off) or RECOVER
SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER

System No.	Deck (See Note)	Base Insulation Layer			Top Insulation Layer		Roof Cover		Tested Wind	Fire Rating UL790/E108	
				ft ²							
	type B, Grade 33 steel or min. 2,500 psi concrete	3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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		ft ²	SECUROCK Gypsum-Fiber Roof Board	PART UIA	115 or 135	WB			
SC-11	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	Min. 2-in. ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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	See Note 2	1 per 2.67 ft ²	Min. 0.25-in SECUROCK Gypsum-Fiber Roof Board	JM TWO-PART UIA	JM TPO FB 115 or 135	JM TPO MA-WB	90	A	2
SC-12	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, ENRGY 3 25 PSI, 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	See Note 2	1 per 2 ft ²	Min. 0.5-inch RetroPlus Board	JM-RSUA or JM TWO-PART UIA	JM TPO FB 115 or 135	JM TPO MA-WB	90	A	1/2
SC-13	Min. 2,500 psi concrete or G33 steel deck	(optional) <i>INSULATION</i> followed by min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) or All Purpose Fasteners (concrete Deck only) with JM UltraFast Plates (Round and Square)	1 per 4 ft ²	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA or JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO FB 115 or 135	JM TPO WB-MA, 0.59-0.77 gal/sq. JM-RSUA, 12" o.c	90	A	2 1/2
SC-14 (Cont'd on next page)	Min. 2,500 psi concrete or G33, L6 steel deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) or All Purpose Fasteners (concrete Deck only) with JM UltraFast Plates (Round and Square)	1 per 1.33 ft ²	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA or JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO FB 115 or 135	JM TPO WB-MA, 0.59-0.77 gal/sq. JM-RSUA, 12" o.c	105	A	2 1/2
SC-15	Min. 2,500 psi concrete (New, Existing, or Recover) or G40, L6 Steel	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round	1 per 1.45 ft ²	Min. 0.25-inch Invinsa or ProtectoR HD, ProtectoR HD FR	JM-RSUA or JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO FB 115 or 135	JM-RSUA, 12" o.c.	105	A	1/2

TABLE 2A: STEEL or CONCRETE DECKS - NEW CONSTRUCTION or REROOF (Tear-Off) or RECOVER
SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER

System No.	Deck (See Note)	Base Insulation Layer			Top Insulation Layer		Roof Cover		Tested Wind	Fire Rating UL790/E108	
	Deck (New, Existing, or Recover)		Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Round and Square)								
SC-16	Min. 2,500 psi concrete or G33, L6 steel deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3	Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) or All Purpose Fasteners (Concrete Deck Only) with JM UltraFast Plates (Round and Square)	1 per 1.33 ft ²	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA, or JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO FB 150	Base Ply (Optional): Torch Adhered; Membrane: HA	105	A	1/4
							JM TPO FB 175			A	1/2
SC-17	Min. 2,500 psi concrete or G33, L6 steel deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3	Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) or All Purpose Fasteners (Concrete Deck Only) with JM UltraFast Plates (Round and Square)	1 per 1.78 ft ²	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA, or JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO FB 115 or 135	JM TPO WB-MA, 0.59-0.77 gal/sq.	120	A	2
SC-18	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, ENRGY 3 25 PSI, 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	See Note 2	1 per 1 ft ²	Min. 0.5-inch Invinsa or SECUROCK Gypsum-Fiber Roof Board	JM-RSUA	JM TPO FB 115 or 135	JM-RSUA, 12-inch o.c.	135	A	1/2
SC-19	Min. 2,500 psi concrete or G33, L6 steel deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) or All Purpose Fasteners (Concrete Deck Only) with JM UltraFast Plates (Round and Square)	1 per 1 ft ²	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board or Invinsa	JM-RSUA or JM TWO-PART UIA or JM TWO-PART UIA-C; Applied 6-inch o.c.	JM TPO FB 115 or 135	JM-RSUA, 12" o.c.	135	A	1/2

TABLE 2A: STEEL or CONCRETE DECKS - NEW CONSTRUCTION or REROOF (Tear-Off) or RECOVER
SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER

System No.	Deck (See Note)	Base Insulation Layer			Top Insulation Layer		Roof Cover		Tested Wind	Fire Rating UL790/E108	
SC-20	Min. 2,500 psi concrete or G80, L6 steel deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Round and Square)	1 per 1.33 ft ²	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA or JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO FB 115 or 135	JM TPO WB-MA, 0.59-0.77 gal/sq.	135	A	2
SC-21	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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	See Note 2	1 per 4 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM-OSFA	JM TPO FB 115 or 135	JM TPO MA-WB	75	A	2
SC-22	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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	See Note 2	1 per 2.67 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM-OSFA	JM TPO FB 115 or 135	JM TPO MA-WB	90	A	2

JM TPO SA APPLICATIONS:

SC-23	Min. 2,500 psi concrete or G33 steel deck	(optional) <i>INSULATION</i> followed by min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) or All Purpose Fasteners (Concrete Deck Only) with JM UltraFast Plates (Round and Square)	1 per 4 ft ²	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA, or JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO SA	Self-Adhered	90	A	2
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TABLE 2A: STEEL or CONCRETE DECKS - NEW CONSTRUCTION or REROOF (Tear-Off) or RECOVER
SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER

System No.	Deck (See Note)	Base Insulation Layer			Top Insulation Layer		Roof Cover		Tested Wind	Fire Rating UL790/E108	
SC-24	Min. 2,500 psi concrete or G33, L6 steel deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) or All Purpose Fasteners (Concrete Deck Only) with JM UltraFast Plates (Round and Square)	1 per 1.33 ft ²	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA, or JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO SA	Self-Adhered	105	A	2
SC-25	Min. 2,500 psi concrete (New, Existing, or Recover) or G40, L6 Steel Deck (New, Existing, or Recover)	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) or All Purpose Fasteners (Concrete Deck Only) with JM UltraFast Plates (Round and Square)	1 per 1.45 ft ²	Min. 0.25-inch Invinsa or ProtectoR HD, ProtectoR HD FR	JM-RSUA or JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO SA	Self-Adhered	105	A	1/4
SC-26	Min. 2,500 psi concrete or G33, L6 steel deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3	Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) or All Purpose Fasteners (Concrete Deck Only) with JM UltraFast Plates (Round and Square)	1 per 1.78 ft ²	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA or JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO SA	Self-Adhered	120	A	2
SC-27	Min. 2,500 psi concrete or G80, L6 steel deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Round and Square)	1 per 1.33 ft ²	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA or JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO SA	Self-Adhered	135	A	2

**TABLE 2B-1: STEEL or CONCRETE DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
JM TPO APPLICATIONS:										
SC-28	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 1.75-inch Invinsa Foam	See Note 2	1 per 4 ft ²	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	60	A	1/2
							JM TPO MA-LVOC, 1.67 GAL/SQ.		A	3/4
SC-29	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 0.25-inch Invinsa	See Note 2	1 per 2 ft ²	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	60	A	1/2
SC-30	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 0.25-inch Dens Deck	See Note 2	1 per 2 ft ²	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	60	A	3/4
SC-31	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	See Note 2	1 per 2.67 ft ²	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB	75	A	1/2
SC-32	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	See Note 2	1 per 2.67 ft ²	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-LVOC, 1.67 gal/sq.	75	A	3/4

**TABLE 2B-1: STEEL or CONCRETE DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
SC-33	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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	See Note 2	1 per 4 ft ²	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB	75	A	1/2
SC-34	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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	See Note 2	1 per 4 ft ²	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-SB	90	A	1/2
							JM TPO MA-LVOC, 1.67 gal/sq.		A	3/4
SC-35	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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	See Note 2	1 per 2 ft ²	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	90	A	1/2
							JM TPO-MA-LVOC		A	3/4

**TABLE 2B-1: STEEL or CONCRETE DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
SC-36	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 1.75-inch Invinsa Foam	See Note 2	1 per 2.9 ft ²	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	90	A	1/2
						JM TPO MA-LVOC, 1.67 gal./sq.	A		3/4	
SC-37	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) min. 4 mil Polyethylene loose laid followed by min. 1.5" ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, loose laid	0.5" ProtectoR HD or ProtectoR HD FR	UltraFast Metal Plates (Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 2.9 ft ² or 1 per 4 ft ²	JM TPO 45, 60, 72, or 80	JM TPO WB-MA, 0.56 gal./sq. to substrate only or two sided application	90	A	3/4
							JM MBA, 1.67 gal./sq.		A	1/2
							JM LVOC-MA, 1.67 gal./sq.		A	1
SC-38	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC) followed by min. 1.5" ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, loose laid	0.5" ProtectoR HD or ProtectoR HD FR	UltraFast Metal Plates (Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 2.9 ft ² or 1 per 4 ft ²	JM TPO 45, 60, 72, or 80	JM TPO WB-MA, 0.56 gal./sq. to substrate only or two sided application	90	A	3/4
							JM MBA, 1.67 gal./sq.		A	1/2
							JM LVOC-MA, 1.67 gal./sq.		A	1

**TABLE 2B-1: STEEL or CONCRETE DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
SC-39	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat, followed by min. 1.5" ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, loose laid	0.5" ProtectoR HD or ProtectoR HD FR	UltraFast Metal Plates (Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 2.9 ft ² or 1 per 4 ft ²	JM TPO 45, 60, 72, or 80	JM TPO WB-MA, 0.56 gal./sq. to substrate only or two sided application	90	A	3/4
							JM MBA, 1.67 gal./sq.		A	1/2
							JM LVOC-MA, 1.67 gal./sq.		A	1
SC-40	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat, followed by min. 1.5" ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, loose laid	0.5" ProtectoR HD or ProtectoR HD FR	UltraFast Metal Plates (Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 2.9 ft ² or 1 per 4 ft ²	JM TPO 45, 60, 72, or 80	JM TPO WB-MA, 0.56 gal./sq. to substrate only or two sided application	90	A	3/4
							JM MBA, 1.67 gal./sq.		A	1/2
							JM LVOC-MA, 1.67 gal./sq.		A	1
SC-41	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	Min. 1.5" <i>INSULATION</i>	0.5" ProtectoR HD	JM UltraFast #12 (Steel Deck only) with UltraFast Metal Plates (Square) or Structural Concrete Fasteners (concrete deck only) or JM All Purpose Fasteners with UltraFast Metal Plates (Round), UltraFast Plus Plates, High Load Plates, or Extra High Load Plates, or JM High Load Fasteners (Steel Deck only) with High Load Plates or Extra High Load Plates, or JM Extra High Load Fasteners (Steel Deck only) with Extra High Load Plates	1 per 1.33 ft ²	JM TPO 45, 60, or 80	JM TPO WB-MA	135	A	1/2

**TABLE 2B-1: STEEL or CONCRETE DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
SC-42	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	See Note 2 (square plates)	1 per 4 ft ²	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	90	A	1/2
							JM TPO MA-LVOC, 1.67 gal/sq.		A	3/4
SC-43	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 7/16-inch APA rated OSB	See Note 2 (square plates)	1 per 2 ft ²	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	90	A	1/2
SC-44	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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	See Note 2	1 per 1.78 ft ²	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-SB	105	A	1/2
							JM TPO MA-LVOC, 1.67 gal/sq.		A	3/4
SC-45	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 7/16-inch APA rated OSB	See Note 2 (square plates)	1 per 1.78 ft ²	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-SB,	150	A	1/2
							JM TPO MA-LVOC, 1.67 gal/sq.		A	3/4
SC-46	Min. 22 ga., type B, Grade 33 steel	Min. 1.5 in. ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	See Note 2 (square plates)	1 per 1 ft ²	JM TPO 45, 60, 72 or 80	JM TPO MA-WB, JM TPO MA-SB	270	A	1/2
							JM TPO MA-LVOC		A	3/4

**TABLE 2B-1: STEEL or CONCRETE DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
JM TPO FB APPLICATIONS:										
SC-47	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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	See Note 2	1 per 4 ft ²	JM TPO FB 115 or 135	JM TPO MA-WB	75	A	1/2
SC-48	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	See Note 2 (square plates)	1 per 2.67 ft ²	JM TPO FB 115 or 135	JM TPO MA-WB	75	A	1/2
SC-49	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) min. 4 mil Polyethylene loose laid followed by min. 1.5" ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, loose laid	0.5" ProtectoR HD or ProtectoR HD FR	UltraFast Metal Plates (Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 2.9 ft ²	JM TPO FB 100, 115, or 135	JM TPO WB-MA, 0.56 gal./sq. to substrate only	75	A	3/4

**TABLE 2B-1: STEEL or CONCRETE DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
SC-50	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC) followed by min. 1.5" ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, loose laid	0.5" ProtectoR HD or ProtectoR HD FR	UltraFast Metal Plates (Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 2.9 ft ²	JM TPO FB 100, 115, or 135	JM TPO WB-MA, 0.56 gal./sq. to substrate only	75	A	3/4
SC-51	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat, followed by min. 1.5" ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, loose laid	0.5" ProtectoR HD or ProtectoR HD FR	UltraFast Metal Plates (Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 2.9 ft ²	JM TPO FB 100, 115, or 135	JM TPO WB-MA, 0.56 gal./sq. to substrate only	75	A	3/4
SC-52	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat, followed by min. 1.5" ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, loose laid	0.5" ProtectoR HD or ProtectoR HD FR	UltraFast Metal Plates (Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 2.9 ft ²	JM TPO FB 100, 115, or 135	JM TPO WB-MA, 0.56 gal./sq. to substrate only	75	A	3/4
SC-53 (Cont'd on next page)	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, ENRGY 3 25 PSI AGF, ENRGY 3 25 PSI CGF, JM ISO 3, ValuTherm, ValuTherm AGF, ValuTherm CGF,	See Note 2	1 per 2 ft ²	JM TPO FB 115 or 135	JM TPO MA-WB	90	A	1/2

**TABLE 2B-1: STEEL or CONCRETE DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
			ValuTherm 25 PSI AGF, ValuTherm 25 PSI CGF							
SC-54	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 7/16-inch OSB	See Note 2 (square plates)	1 per 2 ft ²	JM TPO FB 115 or 135	JM TPO MA-WB	90	A	1/2
SC-55	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	One or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination, loose laid	Min. 5/8" SECUROCK Gypsum-Fiber Roof Board	See Note 2 (square plates)	1 per 4 ft ²	JM TPO FB 115 or 135	JM TPO MA-WB	90	A	1/2
SC-56	Min. 2,500 psi structural concrete or (not recover) G33 Steel Deck	(Optional) <i>INSULATION</i>	Min. 1.5" ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR	JM All Purpose Fasteners or JM UltraFast Fasteners (steel deck only) and JM UltraFast Plates (Round or Square)	1 fastener per 2 ft ²	JM TPO FB 150 or 175	HA	90	A	1/4
SC-57	Min. 2,500 psi structural concrete or (not Recover) G33 Steel Deck	(Optional) <i>INSULATION</i>	Min. 1.5" ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR	JM All Purpose Fasteners or JM UltraFast Fasteners (steel deck only) and JM UltraFast Plates (Square or Round)	1 fastener per 1.78 ft ²	JM TPO FB 150 or 175	HA	105	A	1/4
JM TPO SA APPLICATIONS:										
SC-58	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) min. 4 mil Polyethylene loose laid followed by min. 1.5" ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, loose laid	0.5-inch ProtectoR HD or ProtectoR HD FR	UltraFast Metal Plates (Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 2.9 ft ²	JM TPO SA	Self-Adhered	90	A	1/2

**TABLE 2B-1: STEEL or CONCRETE DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER**

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
SC-59	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC) followed by min. 1.5" ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, loose laid	0.5-inch ProtectoR HD or ProtectoR HD FR	UltraFast Metal Plates (Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 2.9 ft ²	JM TPO SA	Self-Adhered	90	A	1/2
SC-60	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat, followed by min. 1.5" ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, loose laid	0.5-inch ProtectoR HD or ProtectoR HD FR	UltraFast Metal Plates (Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 2.9 ft ²	JM TPO SA	Self-Adhered	90	A	1/2
SC-61	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat, followed by min. 1.5" ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, loose laid	0.5-inch ProtectoR HD or ProtectoR HD FR	UltraFast Metal Plates (Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 2.9 ft ²	JM TPO SA	Self-Adhered	90	A	1/2

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

System No.	Deck (See Note 1)	Insulation Layer	Attachment		Roof Cover / Adhesive	Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Fasteners	Spacing			Class	Max Incline (in.)
SC-62	Min. 22 ga., type B, Grade 33 steel at max. 6 ft span or min. 2,500 psi concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	JM TPO RhinoPlates and High Load Fasteners	18-inch o.c. at rows spaced 60-inch o.c.	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa bonded to JM TPO RhinoPlates with Rhinobond Plate bonding tool at 6 seconds per plate so tool reaches 400°F and cooled with RhinoBond Cooling Clamps. Laps sealed with 1.5-inch heat weld.	75	A	3/4
SC-63	Min. 22 ga., type B, Grade 33 steel at max. 6 ft span or min. 2,500 psi concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	JM TPO RhinoPlates and High Load Fasteners	6-inch o.c. at rows spaced 120-inch o.c.	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa bonded to JM TPO RhinoPlates with Rhinobond Plate bonding tool at 6 seconds per plate so tool reaches 400°F and cooled with RhinoBond Cooling Clamps. Laps sealed with 1.5-inch heat weld.	90	A	3/4
SC-64	Min. 22 ga., type B, Grade 33 steel at max. 6 ft span or min. 2,500 psi concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	JM TPO RhinoPlates and High Load Fasteners	12-inch o.c. at rows spaced 60-inch o.c.	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa bonded to JM TPO RhinoPlates with Rhinobond Plate bonding tool at 6 seconds per plate so tool reaches 400°F and cooled with RhinoBond Cooling Clamps. Laps sealed with 1.5-inch heat weld.	105	A	3/4
SC-65	Min. 22 ga., type B, Grade 33 steel at max. 6 ft span or min. 2,500 psi concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	JM TPO RhinoPlates and High Load Fasteners	6-inch o.c. at rows spaced 60-inch o.c.	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa bonded to JM TPO RhinoPlates with Rhinobond Plate bonding tool at 6 seconds per plate so tool reaches 400°F and cooled with RhinoBond Cooling Clamps. Laps sealed with 1.5-inch heat weld.	210	A	3/4
SC-66	Min. 22 ga., type B, Grade 33 steel at max. 6 ft span or min. 2,500 psi concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	JM TPO RhinoPlates and High Load Fasteners	1 per 5.33 ft ² (6 parts per 4 x 8 ft board)	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa bonded to JM TPO RhinoPlates with Rhinobond Plate bonding tool at 6 seconds per plate so tool reaches 400°F and cooled with RhinoBond Cooling Clamps. Laps sealed with 1.5-inch heat weld.	90	A	3/4
SC-67	Min. 22 ga., type B, Grade 33 steel at max. 6 ft span or min. 2,500 psi concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	JM TPO RhinoPlates and High Load Fasteners	1 per 4 ft ² (8 parts per 4 x 8 ft board)	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa bonded to JM TPO RhinoPlates with Rhinobond Plate bonding tool at 6 seconds per plate so tool reaches 400°F and cooled with RhinoBond Cooling Clamps. Laps sealed with 1.5-inch heat weld.	135	A	3/4
SC-68	Min. 22 ga., type B, Grade 33 steel at max. 6 ft span or min. 2,500 psi concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	JM TPO 10" RPS fastened with JM High Load Seam Plates and High Load Fasteners	Fasteners 6-inch o.c. through RPS at rows spaced 114-inch o.c.	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa underside is primed with Primer 240 or ADKO SPC-3 Primer and walked-in over the self-adhering RPS. Laps sealed with 1.5-inch heat weld.	105	A	3/4

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

System No.	Deck (See Note 1)	Insulation Layer	Attachment		Roof Cover / Adhesive	Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Fasteners	Spacing			Class	Max Incline (in.)
SC-69	Min. 2,500 psi concrete or G33, L6 Steel Deck	(optional) <i>INSULATION</i> followed by min. 1-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR followed by min. 0.25" Invinisa Roof Board, 1" ENRGY 3, or 0.25" SECUROCK Gypsum Fiber Roof Board	JM TPO RhinoPlates and JM All Purpose Fasteners (Concrete Deck only) or High Load Fasteners (Steel Deck Only)	1 per 2.67 ft ²	JM TPO 60 or 80 induction welded to JM TPO RhinoPlates	150	A	3/4
SC-70	(not Recover) Min. 2,500 psi concrete or (not Recover) G80, L6 Steel Deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR	JM TPO RhinoPlates and JM All Purpose Fasteners (Concrete Deck only) or High Load Fasteners (Steel Deck Only)	24-inch by 16-inch grid pattern	JM TPO 60 or 80 induction welded to JM TPO RhinoPlates	180	A	3/4
SC-71	Min. 2,500 psi concrete or G33, L6 Steel Deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR followed by min. 0.25" Invinisa Roof Board, 1" ENRGY 3, or 0.25" SECUROCK Gypsum Fiber Roof Board	JM TPO RhinoPlates and JM All Purpose Fasteners (Concrete Deck only) or High Load Fasteners (Steel Deck Only)	1 per 2.13 ft ²	JM TPO 60 or 80 induction welded to JM TPO RhinoPlates	180	A	3/4

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

System No.	Deck (See Note 1)	Insulation		Roof Cover			Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Type	Attach	Membrane	Fasteners	Attachment		Class	Max Incline (in.)
SYSTEMS OVER MIN. GRADE 33 STEEL DECK OR STRUCTURAL CONCRETE (AS NOTED)									
SC-72	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa (8 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Seam 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	60	A	3/4
SC-73	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa (10 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Seam 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	60	A	3/4
SC-74	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa (10 ft sheet)	Extra High Load Fasteners (steel only) or JM Structural Concrete Deck Fasteners (concrete only) with Extra High Load Seam 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	75	A	3/4
SC-75	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa (8 ft sheet)	Extra High Load Fasteners (steel only) or JM Structural Concrete Deck Fasteners (concrete only) with Extra High Load Seam 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	90	A	3/4
SC-76	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa (10 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Seam 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	90	A	3/4
SC-77	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa (8 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Seam 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	120	A	3/4
SC-78	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa (5 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Seam 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	165	A	3/4

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

System No.	Deck (See Note 1)	Insulation		Roof Cover			Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Type	Attach	Membrane	Fasteners	Attachment		Class	Max Incline (in.)
SYSTEMS OVER MIN. GRADE 80 STEEL DECK OR STRUCTURAL CONCRETE (AS NOTED)									
SC-79	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa (8 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Seam 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	75	A	3/4
SC-80	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa (10 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Seam 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	75	A	3/4
SC-81	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa (8 ft sheet)	Extra High Load Fasteners (steel only) or JM Structural Concrete Deck Fasteners (concrete only) with Extra High Load Seam 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	90	A	3/4
SC-82	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa (10 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Seam 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	90	A	3/4
SC-83	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa (10 ft sheet)	Extra High Load Fasteners (steel only) or JM Structural Concrete Deck Fasteners (concrete only) with Extra High Load Seam 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	90	A	3/4
SC-84	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa (10 ft sheet)	Extra High Load Fasteners (steel only) or JM Structural Concrete Deck Fasteners (concrete only) with Extra High Load Seam 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	105	A	3/4
SC-85	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, any combination	Prelim. attached	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa (8 ft sheet)	High Load Fasteners (steel or concrete) or JM Structural Concrete Deck Fasteners (concrete only) with High Load Seam 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	105	A	3/4

TABLE 3A: STEEL DECKS - NEW CONSTRUCTION or REROOF (Tear-Off)												
SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER												
System No.	Deck (See Note 1 and 10)	Thermal Barrier and Vapor Retarder	Base Insulation Layer			Top Insulation Layer		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fastener	Attach	Type	Attach	Type	Attach		Class	Max Incline (in.)
JM TPO FB APPLICATIONS:												
S-1	Steel Deck (G80, L6)	Min. 0.5-inch DEXcell FA; UltraFast Fasteners and UltraFast Plates (Square or Round) secured 1 fastener per 1.0ft ² ; followed by JM Vapor Barrier SA self-adhered over SA Primer	min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	JM-RSUA or JM TWO-PART UIA or JM TWO PART UIA-C	6" o.c.	Min. 0.5" DEXcell FA	JM-RSUA; 6" o.c.	JM TPO FB 115 or 135	JM-RSUA; 6" o.c.	165	A	1/2

TABLE 3B-1: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off)										
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER										
System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
JM TPO APPLICATIONS:										
S-2	Grade 33 Steel Deck	(Optional) <i>INSULATION</i>	Min. 2" Fesco Foam	JM UltraFast Fasteners and JM UltraFast Plates (Square or Round)	1 fastener per 5.3 ft ²	JM TPO 45, 60, or 80	JM MBA, 50 to 90 ft ² /gal., or JM LVOC 1.10 gal/sq	75	A	1/2
S-3	Grade 33 Steel Deck	(Optional) <i>INSULATION</i>	Min. 2" Invinsa Foam	JM UltraFast Fasteners and JM UltraFast Plates (Square or Round)	1 fastener per 5.3 ft ²	JM TPO 45, 60, or 80	JM MBA, 50 to 90 ft ² /gal., JM TPO WB-MA, 1.2-1.6 gal/sq. or JM LVOC 1.10 gal/sq	90	A	1/2
S-4	Steel Deck (G33, L6)	(Optional) <i>INSULATION</i>	min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	JM UltraFast Fasteners or All Purpose Fasteners and JM UltraFast Plates Square Metal Plates	1 fastener per 1.78 ft ²	JM TPO 45, 60, or 80	JM LVOC 1.26-1.42 gal/sq or JM MBA, 1.10 gal/sq.	120	A	1/2

TABLE 3B-1: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
S-5	Min. 22 ga., type B, Grade 33 steel (New)	(Optional) min. 4 mil Polyethylene loose laid Or (Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC) Or (Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat Or (Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat	min. 2" ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, Tapered ENRGY 3, Tapered ENRGY 3.E, Tapered ValuTherm, JM ISO 3 Tapered, Tapered R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, Tapered ENRGY 3 25 PSI, Tapered ENRGY 3.E 25 PSI, Tapered ValuTherm 25 PSI, Tapered R-Panel 25 PSI, ENRGY 3 CGF, ValuTherm CGF, Tapered ENRGY 3 CGF, Tapered ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, Tapered ENRGY 3 25 PSI CGF, Tapered ValuTherm 25 PSI CGF, ENRGY 3 FR, Tapered ENRGY 3 FR, ENRGY 3 25 PSI FR, Tapered ENRGY 3 25 PSI FR	UltraFast Metal Plates (Round) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 1.6 ft ²	JM TPO WB-MA, 0.63 gal./sq. to substrate only or two sided application or JM MBA, 1.10 gal./sq.	120	A	1/2	
						JM LVOC MA, 1.10 gal./sq.		A	1/4	
S-6	Min. 22 ga., type B, Grade 33 steel (New)	(Optional) min. 4 mil Polyethylene loose laid Or (Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC) Or (Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat Or (Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat	Min. 2" ENRGY 3 C1, ENRGY 3 C1 CGF, Tapered ENRGY 3 C1, Tapered ENRGY 3 C1 CGF	UltraFast Metal Plates (Round) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 1.6 ft ²	JM TPO WB-MA, 0.63 gal./sq. to substrate only or two sided application or JM MBA, 1.10 gal./sq. Or JM LVOC MA, 1.10 gal./sq.	120	A	1/4	

TABLE 3B-1: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
S-7	Min. 22 ga., type B, Grade 33 steel (New)	(optional) <i>INSULATION</i>	Min. 2" ENRGY 3 CGF or ENRGY 3 FR	UltraFast Metal Plates (Square) or UltraFast Plus Metal Plates (Square) and UltraFast #12 Hex Head, UltraFast #12 Phillips Head, All Purpose Fasteners, or High Load Fasteners	1 per 2 ft ²	JM TPO 45, 60, 72, or 80	JM TPO WB-MA, 0.63 gal./sq. to substrate only or two sided application	135	A	1/2
S-8	Min. 22 ga., type B, Grade 33 steel (New)	(Optional) min. 4 mil Polyethylene loose laid Or (Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC) Or (Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat Or (Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat	Min. 2" Invinsa Foam	UltraFast Metal Plates (Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 2 ft ²	JM TPO 45, 60, 72, or 80	JM TPO WB-MA, 0.56 gal./sq. to substrate only or two sided application	150	A	3/4
						JM MBA, 1.67 gal./sq.			A	1/2
						JM LVOC MA, 1.67 gal./sq.			A	1

TABLE 3B-1: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
S-9	Min. 22 ga., type B, Grade 33 steel (New)	(Optional) min. 4 mil Polyethylene loose laid Or (Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC) Or (Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat Or (Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat Followed by min. 1.5" ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, Tapered ENRGY 3, Tapered ENRGY 3.E, Tapered ValuTherm, JM ISO 3 Tapered, Tapered R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, Tapered ENRGY 3 25 PSI, Tapered ENRGY 3.E 25 PSI, Tapered ValuTherm 25 PSI, Tapered R-Panel 25 PSI, ENRGY 3 CGF, ValuTherm CGF, Tapered ENRGY 3 CGF, Tapered ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, Tapered ENRGY 3 25 PSI CGF, Tapered ENRGY 3 25 PSI CGF, Tapered ValuTherm 25 PSI CGF, ENRGY 3 FR, Tapered ENRGY 3 FR, ENRGY 3 25 PSI FR, Tapered ENRGY 3 25 PSI FR, ENRGY 3 C1, ENRGY 3 C1 CGF, Tapered ENRGY 3 C1, Tapered ENRGY 3 C1 CGF, ENRGY 3 AGF, ValuTherm AGF, Tapered ENRGY 3 AGF, Tapered ValuTherm AGF, ENRGY 3 25 PSI AGF, ValuTherm 25 PSI AGF, Tapered ENRGY 3 25 PSI AGF, Tapered ValuTherm 25 PSI AGF, ENRGY 3 Foil Faced, ENRGY 3 Foil Faced 25 PSI, ENRGY 3 Plus, ENRGY 3 Plus 25 PSI, Tapered ENRGY 3 Plus, or Tapered ENRGY 3 Plus 25 PSI, Loose laid	Min. 0.5" SECUROCK Gypsum Fiber Roof Board	UltraFast Metal Plates (Square) or UltraFast AccuTrac Plate and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 1.6 ft ²	JM TPO 45, 60, 72, or 80	JM MBA, 1.67 gal./sq.	150	A	1-1/2
							JM LVOC MA, 1.67 gal./sq.		A	1
							JM TPO WB-MA, 0.56 gal./sq. to substrate only or two sided application		A	2

TABLE 3B-1: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
S-10	Min. 22 ga., type B, Grade 33 steel (New)	(Optional) min. 4 mil Polyethylene loose laid Or (Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC) Or (Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat Or (Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat	Min. 2" ENRGY 3 CGF or ENRGY 3 FR	UltraFast Metal Plates (Round or Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 1 ft ²	JM TPO 45, 60, 72, or 80	JM LVOC MA, 1.10 gal./sq.	165	A	1/4
						JM TPO WB-MA, 0.63 gal./sq. to substrate only or two sided application or JM MBA, 1.10 gal./sq.	A		1/2	
S-11 (Cont'd on next page)	Min. 22 ga., type B, Grade 33 steel (New)	(Optional) min. 4 mil Polyethylene loose laid Or (Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC) Or (Optional) DynaGrip Base SD/SA, self-adhered to	Min. 0.5" DEXCell FA Glass Mat Roof Board	UltraFast Metal Plates (Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 1 ft ²	JM TPO 45, 60, 72, or 80	JM MBA, 1.67 gal./sq. Or JM LVOC MA, 1.67 gal./sq. Or JM TPO WB-MA, 0.59 gal./sq. to substrate only or two sided application	165	A	2
	Min. 22 ga., type B, Grade 80 steel (New)							210		

TABLE 3B-1: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
		min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat Or (Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat (Con't) Followed by min. 1.5" ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, Tapered ENRGY 3, Tapered ENRGY 3.E, Tapered ValuTherm, JM ISO 3 Tapered, Tapered R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, Tapered ENRGY 3 25 PSI, Tapered ENRGY 3.E 25 PSI, Tapered ValuTherm 25 PSI, Tapered R-Panel 25 PSI, ENRGY 3 CGF, ValuTherm CGF, Tapered ENRGY 3 CGF, Tapered ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, Tapered ENRGY 3 25 PSI CGF, Tapered ValuTherm 25 PSI CGF, ENRGY 3 FR, Tapered ENRGY 3 FR, ENRGY 3 25 PSI FR, Tapered ENRGY 3 25 PSI FR, ENRGY 3 C1, ENRGY 3 C1 CGF, Tapered ENRGY 3 C1, Tapered ENRGY 3 C1 CGF, ENRGY 3 AGF, ValuTherm AGF, Tapered ENRGY 3 AGF, Tapered ValuTherm AGF, ENRGY 3 25 PSI AGF, ValuTherm 25 PSI AGF, Tapered ENRGY 3 25 PSI AGF, Tapered ValuTherm 25 PSI AGF, ENRGY 3 Foil Faced, ENRGY 3 Foil Faced 25 PSI, ENRGY 3 Plus, ENRGY 3 Plus 25 PSI, Tapered ENRGY 3 Plus, or Tapered ENRGY 3 Plus 25 PSI, Loose laid								
S-12 (Cont'd on next page)	Min. 22 ga., type B, Grade 33 steel (New)	(Optional) min. 4 mil Polyethylene loose laid Or (Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC)	Min. 0.5" DensDeck Prime	UltraFast Metal Plates (Square) or UltraFast AccuTrac Plate and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 1 ft ²	JM TPO 45, 60, 72, or 80	JM MBA, 1.67 gal./sq.	165	A	1-1/2

TABLE 3B-1: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
			Min. 22 ga., type B, Grade 80 steel (New)	Or (Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat Or (Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat						225
Min. 22 ga., type B, Grade 33 steel (New)	Followed by min. 1.5" ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, Tapered ENRGY 3, Tapered ENRGY 3.E, Tapered ValuTherm, JM ISO 3 Tapered, Tapered R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, Tapered ENRGY 3 25 PSI, Tapered ENRGY 3.E 25 PSI, Tapered ValuTherm 25 PSI, Tapered R-Panel 25 PSI, ENRGY 3 CGF, ValuTherm CGF, Tapered ENRGY 3 CGF, (Cont'd on next page) Tapered ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, Tapered ENRGY 3 25 PSI CGF, Tapered ValuTherm 25 PSI CGF, ENRGY 3 FR, Tapered ENRGY 3 FR, ENRGY 3 25 PSI FR, Tapered ENRGY 3 25 PSI FR, ENRGY 3 C1, ENRGY 3 C1 CGF, Tapered ENRGY 3 C1, Tapered ENRGY 3 C1 CGF, ENRGY 3 AGF, ValuTherm AGF, Tapered ENRGY 3 AGF, Tapered ValuTherm AGF, ENRGY 3 25 PSI AGF, ValuTherm 25 PSI AGF, Tapered ENRGY 3 25 PSI AGF, Tapered ValuTherm 25 PSI AGF, ENRGY 3 Foil Faced, ENRGY 3 Foil Faced 25 PSI, ENRGY 3 Plus, ENRGY 3 Plus 25 PSI, Tapered ENRGY 3 Plus, or Tapered ENRGY 3 Plus 25 PSI, Loose laid				JM LVOC MA, 1.67 gal./sq. Or JM TPO WB-MA, 0.59 gal./sq. to substrate only or two sided application	165	A	1		
Min. 22 ga., type B, Grade 80 steel (New)						225				

TABLE 3B-1: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
S-13	Min. 22 ga., type B, Grade 80 steel (New)	(Optional) min. 4 mil Polyethylene loose laid Or (Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC) Or (Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat Or (Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat	Min. 2" ENRGY 3 CGF or ENRGY 3 FR	UltraFast Metal Plates (Round or Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 1 ft ²	JM TPO 45, 60, 72, or 80	JM LVOC MA, 1.10 gal./sq.	240	A	1/4
							JM TPO WB-MA, 0.63 gal./sq. to substrate only or two sided application or JM MBA, 1.10 gal./sq.		A	1/2
S-14	Steel Deck (G80, L6)	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	JM UltraFast Fasteners with JM UltraFast Plates (Square)	1 per 1 ft ²	JM TPO 45, 60, or 80	JM TPO WB-MA, 1.18-1.54 gal/sq.	300	A	1-1/2
JM TPO FB APPLICATIONS:										
S-15	Steel Deck (G80, L6)	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	JM UltraFast Fasteners with JM UltraFast Plates (Square)	1 per 1 ft ²	JM TPO FB 150	HA	120	A	1/2
						JM TPO FB 175			A	1

TABLE 3B-1: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
S-16	Min. 22 ga., type B, Grade 33 steel (New)	(Optional) min. 4 mil Polyethylene loose laid Or (Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC) Or (Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat Or (Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat	min. 2" ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, Tapered ENRGY 3, Tapered ENRGY 3.E, Tapered ValuTherm, JM ISO 3 Tapered, Tapered R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, Tapered ENRGY 3 25 PSI, Tapered ENRGY 3.E 25 PSI, Tapered ValuTherm 25 PSI, Tapered R-Panel 25 PSI, ENRGY 3 CGF, ValuTherm CGF, Tapered ENRGY 3 CGF, Tapered ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, Tapered ENRGY 3 25 PSI CGF, Tapered ValuTherm 25 PSI CGF, ENRGY 3 FR, Tapered ENRGY 3 FR, ENRGY 3 25 PSI FR, Tapered ENRGY 3 25 PSI FR, ENRGY 3 C1, ENRGY 3 C1 CGF, Tapered ENRGY 3 C1, Tapered ENRGY 3 C1 CGF	UltraFast Metal Plates (Round) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 1.6 ft ²	JM TPO FB 150 or 175	HA	120	A	1/4
S-17	Min. 22 ga., type B, Grade 33 steel (New)	(optional) <i>INSULATION</i>	min. 1.5" ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, Tapered ENRGY 3, Tapered ENRGY 3.E, Tapered ValuTherm, JM ISO 3 Tapered, Tapered R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, Tapered ENRGY 3 25 PSI, Tapered ENRGY 3.E 25 PSI, Tapered ValuTherm 25 PSI, Tapered R-Panel 25 PSI, ENRGY 3 CGF, ValuTherm CGF, Tapered ENRGY 3 CGF, Tapered ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, Tapered ENRGY 3 25 PSI CGF, Tapered ValuTherm 25 PSI CGF, ENRGY 3 FR, Tapered ENRGY 3 FR, ENRGY 3 25 PSI FR, Tapered ENRGY 3 25 PSI FR, ENRGY 3 AGF, ValuTherm AGF, Tapered ENRGY 3 AGF, Tapered ValuTherm AGF, ENRGY 3 25 PSI AGF, ValuTherm 25 PSI AGF, Tapered ENRGY 3 25 PSI AGF, Tapered ValuTherm 25 PSI AGF,	UltraFast Metal Plates (Round or Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 1.78 ft ²	JM TPO FB 150 or 175	HA	120	A	1/4

TABLE 3B-1: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
S-18	Min. 22 ga., type B, Grade 33 steel (New)	<p>(Optional) min. 4 mil Polyethylene loose laid Or (Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC) Or (Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat Or (Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat</p> <p>Followed by min. 1.5" ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, Tapered ENERGY 3, Tapered ENRGY 3.E, Tapered ValuTherm, JM ISO 3 Tapered, Tapered R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, Tapered ENRGY 3 25 PSI, Tapered ENRGY 3.E 25 PSI, Tapered ValuTherm 25 PSI, Tapered R-Panel 25 PSI, ENRGY 3 CGF, ValuTherm CGF, Tapered ENRGY 3 CGF, Tapered ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, Tapered ENRGY 3 25 PSI CGF, Tapered ENRGY 3 25 PSI CGF, Tapered ValuTherm 25 PSI CGF, ENRGY 3 FR, Tapered ENRGY 3 FR, ENRGY 3 25 PSI FR, Tapered ENRGY 3 25 PSI FR, ENRGY 3 C1, ENRGY 3 C1 CGF, Tapered ENRGY 3 C1, Tapered ENRGY 3 C1 CGF, ENRGY 3 AGF, ValuTherm AGF, Tapered ENRGY 3 AGF, Tapered ValuTherm AGF, ENRGY 3 25 PSI AGF, ValuTherm 25 PSI AGF, Tapered ENRGY 3 25 PSI AGF, Tapered ValuTherm 25 PSI AGF, ENRGY 3 Foil Faced, ENRGY 3 Foil Faced 25 PSI, ENRGY 3 Plus, ENRGY 3 Plus 25 PSI, Tapered ENRGY 3 Plus, or Tapered ENRGY 3 Plus 25 PSI, Loose laid</p>	Min. 0.5" SECUROCK Gypsum Fiber Roof Board	UltraFast Metal Plates (Square) or UltraFast AccuTrac Plate and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 1.6 ft ²	JM TPO FB 150 or 175	HA	150	A	3/4

TABLE 3B-1: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
S-19	Steel Deck (G33, L6)	Min. 0.5" DEXcell FA followed by JM Vapor Barrier SA self-adhered	min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR followed by min. 0.5" DEXcell FA	JM UltraFast Fasteners and JM UltraFast Plates (Square or Round)	1 per 1 ft ²	JM TPO FB 115 or 135	JM-RSUA; 4" o.c.	165	A	1/2
S-20	Steel Deck (G80, L6)	Min. 0.5" DEXcell FA; JM Vapor Barrier SA self-adhered	min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR followed by min. 0.5" DEXcell FA	JM UltraFast Fasteners and JM UltraFast Plates (Square or Round)	1 per 1 ft ²	JM TPO FB 115 or 135	JM-RSUA; 4" o.c.	285	A	1/2
S-21	Steel Deck (G80, L6)	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	JM UltraFast Fasteners with JM UltraFast Plates (Square)	1 per 1 ft ²	JM TPO FB 115 or 135	JM TPO WB-MA, 1.18-1.54 gal/sq.	300	A	2
JM TPO SA APPLICATIONS:										
S-22	Grade 33 Steel Deck	(Optional) <i>INSULATION</i>	Min. 2" Invinso Foam	JM UltraFast fasteners and JM UltraFast Plates (Square or Round)	1 fastener per 5.3 ft ²	JM TPO SA	Self-Adhered	90	A	1/4
S-23	Grade 33 Steel Deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.375-inch SECUROCK Gypsum Fiber Roof Board	JM UltraFast Fasteners with JM UltraFast Plates (Square)	1 per 2.67 ft ²	JM TPO SA	Self-Adhered	90	A	1/4
S-24	Grade 33 Steel Deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	JM UltraFast Fasteners with JM UltraFast Plates (Square)	1 per 4 ft ²	JM TPO SA	Self-Adhered	90	A	1/4
S-25	Grade 33 Steel Deck	(optional) <i>INSULATION</i>	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	JM UltraFast Fasteners and JM UltraFast Plates (Round or Square)	1 per 2 ft ²	JM TPO SA	Self-Adhered	90	A	1/4
S-26	Steel Deck (G33, L6)	(Optional) <i>INSULATION</i>	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	JM UltraFast fasteners and JM UltraFast Plates (Square)	1 fastener per 1.78 ft ²	JM TPO SA	Self-Adhered	120	A	1/4

TABLE 3B-1: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
S-27	Min. 22 ga., type B, Grade 33 steel (New)	(Optional) min. 4 mil Polyethylene loose laid Or (Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC) Or (Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat Or (Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat	min. 2" ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, Tapered ENRGY 3, Tapered ENRGY 3.E, Tapered ValuTherm, JM ISO 3 Tapered, Tapered R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, Tapered ENRGY 3 25 PSI, Tapered ENRGY 3.E 25 PSI, Tapered ValuTherm 25 PSI, Tapered R-Panel 25 PSI, ENRGY 3 CGF, ValuTherm CGF, Tapered ENRGY 3 CGF, Tapered ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, Tapered ENRGY 3 25 PSI CGF, Tapered ValuTherm 25 PSI CGF, ENRGY 3 FR, Tapered ENRGY 3 FR, ENRGY 3 25 PSI FR, Tapered ENRGY 3 25 PSI FR, ENRGY 3 C1, ENRGY 3 C1 CGF, Tapered ENRGY 3 C1, Tapered ENRGY 3 C1 CGF	UltraFast Metal Plates (Round) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 1.6 ft ²	JM TPO SA	Self-Adhered	120	A	1/4
S-28	Min. 22 ga., type B, Grade 33 steel (New)	(Optional) min. 4 mil Polyethylene loose laid Or (Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC) Or (Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat Or (Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat	Min. 2" InvinSa Faom	UltraFast Metal Plates (Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 2 ft ²	JM TPO SA	Self-Adhered	150	A	1/2

TABLE 3B-1: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
S-29	Min. 22 ga., type B, Grade 33 steel (New)	<p>(Optional) min. 4 mil Polyethylene loose laid Or (Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC) Or (Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat Or (Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat</p> <p>Followed by min. 1.5" ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, Tapered ENERGY 3, Tapered ENRGY 3.E, Tapered ValuTherm, JM ISO 3 Tapered, Tapered R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, Tapered ENRGY 3 25 PSI, Tapered ENRGY 3.E 25 PSI, Tapered ValuTherm 25 PSI, Tapered R-Panel 25 PSI, ENRGY 3 CGF, ValuTherm CGF, Tapered ENRGY 3 CGF, Tapered ValuTherm CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, Tapered ENRGY 3 25 PSI CGF, Tapered ENRGY 3 25 PSI CGF, Tapered ValuTherm 25 PSI CGF, ENRGY 3 FR, Tapered ENRGY 3 FR, ENRGY 3 25 PSI FR, Tapered ENRGY 3 25 PSI FR, ENRGY 3 C1, ENRGY 3 C1 CGF, Tapered ENRGY 3 C1, Tapered ENRGY 3 C1 CGF, ENRGY 3 AGF, ValuTherm AGF, Tapered ENRGY 3 AGF, Tapered ValuTherm AGF, ENRGY 3 25 PSI AGF, ValuTherm 25 PSI AGF, Tapered ENRGY 3 25 PSI AGF, Tapered ValuTherm 25 PSI AGF, ENRGY 3 Foil Faced, ENRGY 3 Foil Faced 25 PSI, ENRGY 3 Plus, ENRGY 3 Plus 25 PSI, Tapered ENRGY 3 Plus, or Tapered ENRGY 3 Plus 25 PSI, Loose laid</p>	Min. 0.5" SECUROCK Gypsum Fiber Roof Board	UltraFast Metal Plates (Square) or UltraFast AccuTrac Plate and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 1.6 ft ²	JM TPO SA	Self-Adhered	150	A	2

TABLE 3B-1: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
S-30	Min. 22 ga., type B, Grade 33 steel (New)	(Optional) min. 4 mil Polyethylene loose laid Or (Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC) Or (Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat Or (Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat	Min. 0.5" DensDeck Prime	UltraFast Metal Plates (Square) or UltraFast AccuTrac Plate and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 1 ft ²	JM TPO SA	Self-Adhered	165	A	2
	Min. 22 ga., type B, Grade 80 steel (New)	Followed by min. 1.5" ENRGY 3, ENRGY 3.E, ValuTherm, JM ISO 3, R-Panel, Tapered ENRGY 3, Tapered ENRGY 3.E, Tapered ValuTherm, JM ISO 3 Tapered, Tapered R-Panel, ENRGY 3 25 PSI, ENRGY 3.E 25 PSI, ValuTherm 25 PSI, R-Panel 25 PSI, Tapered ENRGY 3 25 PSI, Tapered ENRGY 3.E 25 PSI, Tapered ValuTherm 25 PSI, Tapered R-Panel 25 PSI, ENRGY 3 CGF, ValuTherm CGF, Tapered ENRGY 3 CGF, ENRGY 3 25 PSI CGF, ValuTherm 25 PSI CGF, Tapered ENRGY 3 25 PSI CGF, Tapered ValuTherm 25 PSI CGF, ENRGY 3 FR, Tapered ENRGY 3 FR, ENRGY 3 25 PSI FR, Tapered ENRGY 3 25 PSI FR, ENRGY 3 C1, ENRGY 3 C1 CGF, Tapered ENRGY 3 C1, Tapered ENRGY 3 C1 CGF, ENRGY 3 AGF, ValuTherm AGF, Tapered ENRGY 3 AGF, Tapered ValuTherm AGF, ENRGY 3 25 PSI AGF, ValuTherm 25 PSI AGF, Tapered ENRGY 3 25 PSI AGF, Tapered ValuTherm 25 PSI AGF, ENRGY 3 Foil Faced, ENRGY 3 Foil Faced 25 PSI, ENRGY 3 Plus, ENRGY 3 Plus 25 PSI, Tapered ENRGY 3 Plus, or Tapered ENRGY 3 Plus 25 PSI, Loose laid						225		

TABLE 3B-1: STEEL DECKS - NEW CONSTRUCTION, REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
S-31	Min. 22 ga., type B, Grade 33 steel (New)	(Optional) min. 4 mil Polyethylene loose laid Or (Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement	Min. 2" ENRGY 3 CGF or ENRGY 3 FR	UltraFast Metal Plates (Round or Square) and UltraFast Fasteners #12 or All Purpose Fasteners	1 per 1 ft ²	JM TPO SA	Self-Adhered	165	A	1/4
	Min. 22 ga., type B, Grade 80 steel (New)	Roof Board (Optionally primed with JM SA Primer Low VOC) Or (Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat Or (Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat						240		
S-32	Steel Deck (G80, L6)	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	JM UltraFast Fasteners with JM UltraFast Plates (Square)	1 per 1 ft ²	JM TPO SA	Self-Adhered	300	A	1/4

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

System No.	Deck (See Note 1)	Insulation Layer	Attachment		Roof Cover / Adhesive	Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Fasteners	Spacing			Class	Max Incline (in.)
JM TPO APPLICATIONS:								
S-33	Min. 22 ga., type B, Grade 33 steel	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR	JM TPO RhinoPlates and JM High Load Fasteners or JM Extra High Load Fasteners	12-inch o.c. in rows spaced 72-inch o.c.	JM TPO 60 or 80 induction welded to JM TPO RhinoPlates. 3.25" wide side laps sealed with 1.5-inch heat weld.	90	A	2
S-34	Min. 22 ga., type B, Grade 33 steel	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR	JM TPO RhinoPlates and JM High Load Fasteners or JM Extra High Load Fasteners	1 per 5.33 ft ²	JM TPO 60 or 80 induction welded to JM TPO RhinoPlates. 3.25" wide side laps sealed with 1.5-inch heat weld.	105	A	2
S-35	Min. 2,500 psi structural concrete deck or (not recover) G33, L6 steel deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR followed by (optional) <i>Cover Board</i>	JM TPO RhinoPlates and JM High Load Fasteners	1 per 4 ft ²	JM TPO 60 or 80 induction welded to JM TPO RhinoPlates	135	A	2
S-36	(not Recover) G33, L6 Steel Deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR	JM TPO RhinoPlates and JM All Purpose Fasteners (Concrete Deck only) or High Load Fasteners (Steel Deck Only)	24-inch by 16-inch grid pattern	JM TPO 60 or 80 induction welded to JM TPO RhinoPlates	165	A	2
S-37	Min. 22 ga., type B, Grade 40 steel	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR	JM TPO RhinoPlates and JM High Load Fasteners or JM Extra High Load Fasteners	1 per 2.67 ft ²	JM TPO 60 or 80 induction welded to JM TPO RhinoPlates. 3.25" wide side laps sealed with 1.5-inch heat weld.	180	A	2

**TABLE 3C: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D: INSULATED, MECHANICALLY ATTACHED ROOF COVER**

System No.	Deck (See Note 1)	Insulation		Roof Cover			Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Type	Attach	Membrane	Fasteners	Attachment		Class	Max Incline (in.)
S-38	Min. 22 ga., type B, Grade 33 steel	Min. 1.5" <i>INSULATION</i> followed by (Optional) <i>Cover Board</i>	Prelim. attached	JM TPO 60 or 80	JM Extra High Load Fastener with JM Extra High Load Plate	12-inch o.c. within 6-inch wide laps spaced 138-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	60	A	2

TABLE 3C: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D: INSULATED, MECHANICALLY ATTACHED ROOF COVER

System No.	Deck (See Note 1)	Insulation		Roof Cover			Tested Wind Uplift(psf)	Fire Rating UL790/E108	
		Type	Attach	Membrane	Fasteners	Attachment		Class	Max Incline (in.)
S-39	(New Deck only) Steel Deck (G80, L6)	(Optional) min. 4 mil Polyethylene loose laid Or (Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC) Or (Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell FA Glass Mat Or (Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat Followed by min. 1.5" INSULATION followed by (Optional) Cover Board	Prelim. attached	JM TPO 45, 60, 72, or 80	JM High Load Fasteners or JM Extra High Load Fastener with JM High Load Seam Plates	12-inch o.c. within 6-inch wide laps spaced 138-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	60	A	3/4-in. with ENRGY3/polyisocyanurate 1-in. with Invinsa/Invinsa FR 1-1/2-in. with RetroPlus, Invinsa Foam/Invinsa Foam FR 2-in. with DensDeck, DEXCell, and SECUROCK
S-40	(Recover Deck only) Steel Deck (G80, L6)	Followed by min. 1" INSULATION or (Optional) INSULATION followed by Cover Board (max. 1" thick total thickness)	Prelim. attached	JM TPO 45, 60, 72, or 80	JM High Load Fasteners or JM Extra High Load Fastener with JM High Load Seam Plates	12-inch o.c. within 6-inch wide laps spaced 138-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	60	A	3/4-in. with ENRGY3/polyisocyanurate 1-in. with Invinsa/Invinsa FR 1-1/2-in. with RetroPlus, Invinsa Foam/Invinsa Foam FR 2 in. with DensDeck, DEXCell, and SECUROCK
S-41 (Cont'd on next page)	(New Deck only) 22 ga. Steel Deck (G33, L4) or 20 ga. Steel Deck (G33, L5) or 18 ga. Steel Deck (G33, L6)	(Optional) min. 4 mil Polyethylene loose laid Or (Optional) JM Vapor Barrier SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, DEXCell FA Glass Mat, or DEXCell Cement Roof Board (Optionally primed with JM SA Primer Low VOC)	Prelim. attached	JM TPO 45, 60, 72, or 80	JM High Load Fasteners or JM Extra High Load Fastener with JM High Load Seam Plates	6-inch o.c. within 6-inch wide laps spaced 138-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	60	A	3/4-in. with ENRGY3/polyisocyanurate 1-in. with Invinsa/Invinsa FR 1-1/2-in. with RetroPlus, Invinsa Foam/Invinsa Foam FR 2-in. with DensDeck, DEXCell, and SECUROCK
	(New Deck only) 22 ga. Steel Deck (G80, L6) or 20 ga. Steel Deck (G33, L4.5) or 18 ga. Steel Deck (G33, L5.5)	Or (Optional) DynaGrip Base SD/SA, self-adhered to min. 0.5" SECUROCK Gypsum Fiber, or DEXCell					75		

TABLE 3C: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D: INSULATED, MECHANICALLY ATTACHED ROOF COVER

System No.	Deck (See Note 1)	Insulation		Roof Cover			Tested Wind Uplift(psf)	Fire Rating UL790/E108	
		Type	Attach	Membrane	Fasteners	Attachment		Class	Max Incline (in.)
	(New Deck only) 22 ga. Steel Deck (G80, L5) or 20 ga. Steel Deck (G80, L6) or 18 ga. Steel Deck (G33, L4.5)	FA Glass Mat Or (Optional) DynaBase HW, Torch adhered to min. 0.5" DEXCell FA Glass Mat Followed by min. 1.5" INSULATION followed by (Optional) Cover Board					90		
	105								
S-42	(Recover Deck only) 22 ga. Steel Deck (G33, L4) or 20 ga. Steel Deck (G33, L5) or 18 ga. Steel Deck (G33, L6)	Followed by min. 1" INSULATION or (Optional) INSULATION followed by Cover Board (max. 1" thick total thickness)	Prelim. attached	JM TPO 45, 60, 72, or 80	JM High Load Fasteners or JM Extra High Load Fastener with JM High Load Seam Plates	6-inch o.c. within 6-inch wide laps spaced 138-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	60	A	3/4" with ENRGY3/polyisocyanurate 1" with Invinsa/Invinsa FR 1.5" with RetroPlus, Invinsa Foam/Invinsa Foam FR 2" with DensDeck, DEXCell, and SECURROCK
	75								
	90								
	105								
S-43	(Recover Deck only) 22 ga. Steel Deck (G80, L6) or 20 ga. Steel Deck (G33, L4.5) or 18 ga. Steel Deck (G33, L5.5)	(optional) INSULATION followed by min. 1-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR, followed by (Optional) Cover Board	Prelim. Secured	JM TPO 60 or 80	JM High Load Fasteners and High Load Plates	12" o.c. within 6" wide laps spaced 90" o.c. Laps sealed with 1.5" heat weld outside lap	75	A	3/4
	(Recover Deck only) 22 ga. Steel Deck (G80, L5) or 20 ga. Steel Deck (G80, L6) or 18 ga. Steel Deck (G33, L4.5)								
	(Recover Deck only) 22 ga. Steel Deck (G80, L4.5) or 20 ga. Steel Deck (G80, L5.5) or 18 ga. Steel Deck (G80, L6) or (not with High Load Fasteners) 18 ga. Steel Deck (G33, L4)								
	(Recover Deck only) 22 ga. Steel Deck (G80, L4.5) or 20 ga. Steel Deck (G80, L5.5) or 18 ga. Steel Deck (G33, L4)								

TABLE 3C: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D: INSULATED, MECHANICALLY ATTACHED ROOF COVER

System No.	Deck (See Note 1)	Insulation		Roof Cover			Tested Wind Uplift(psf)	Fire Rating UL790/E108	
		Type	Attach	Membrane	Fasteners	Attachment		Class	Max Incline (in.)
S-44	Steel Deck (G80, L6)	(optional) <i>INSULATION</i> followed by min. 1-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR followed by (Optional) <i>Cover Board</i>	Prelim. Secured	JM TPO 45, 60, or 80	JM High Load Fasteners and High Load Plus Plates	12" o.c. within 6" wide laps spaced 90" o.c. Laps sealed with 1.5" heat weld outside lap	90	A	3/4
S-45	Min. 22 ga., type B, Grade 33 steel	Min. 1.5" <i>INSULATION</i> followed by (Optional) <i>Cover Board</i>	Prelim. attached	JM TPO 60 or 80	JM High Load Fasteners with JM High Load Plates or JM Extra High Load Fastener with JM Extra High Load Plate	12-inch o.c. within 6-inch wide laps spaced 66-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	90	A	3/4
S-46	Min. 22 ga., type B, Grade 33 steel	Min. 1.5" <i>INSULATION</i> followed by (Optional) <i>Cover Board</i>	Prelim. attached	JM TPO 60 or 80	JM High Load Fasteners with JM High Load Plates or JM Extra High Load Fastener with JM Extra High Load Plate	6-inch o.c. within 6-inch wide laps spaced 138-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	120	A	3/4
S-47	Min. 22 ga., type B, Grade 33 steel	Min. 1.5" <i>INSULATION</i> followed by (Optional) <i>Cover Board</i>	Prelim. attached	JM TPO 60 or 80	JM Extra High Load Fastener with JM Extra High Load Plate	6-inch o.c. within 6-inch wide laps spaced 138-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	135	A	3/4
S-48	Min. 22 ga., type B, Grade 40 steel	Min. 1.5" <i>INSULATION</i> followed by (Optional) <i>Cover Board</i>	Prelim. attached	JM TPO 60 or 80	JM High Load Fasteners with JM High Load Plates or JM Extra High Load Fastener with JM Extra High Load Plate	6-inch o.c. within 6-inch wide laps spaced 66-inch o.c. Laps sealed with 1.5-inch heat weld outside lap	210	A	3/4

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

System No.	Roof Deck	Primer	Base Insulation Layer		Top Insulation Layer		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Attach	Type	Attach	Type	Attach		Class	Max Incline (in.)
JM TPO APPLICATIONS:											
C-1	Min. 2,500 psi concrete	None	Min. 1.5-inch ENRGY 3	JM TWO-PART UIA or JM TWO-PART UIA-C	(Optional) Invinsa, min. 0.25-inch or Protector HD, Protector HD FR	JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO 45, 60, or 80	JM MBA, 1.1 gal/sq., JM LVOC-MA, 1.10 gal/sq., (not with Invinsa) or JM TPO WB-MA, 0.83 gal/sq.	210	A	1/2
C-2	Min. 2,500 psi concrete	None	Min. 0.5" RetroPlus Board	HA	None	None	JM TPO 45, 60, or 80	JM MBA, 1.10 gal/sq.	210	A	1/4
C-3	Min. 2,500 psi concrete (not recover)	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	JM-RSUA or JM-OSFA or JM TWO-PART UIA or JM TWO-PART UIA-C	None	None	JM TPO 45, 60, or 80	JM LVOC-MA, 1.10 gal/sq.	350	A	1/2
C-4	Min. 2,500 psi concrete (not recover)	None	Min. 1.5-inch ENRGY 3, ENRGY 3 CGF, ENRGY 3 FR	JM TWO-PART UIA or JM TWO-PART UIA-C	None	None	JM TPO 45, 60, or 80	JM TPO WB-MA, 1.26-1.66 gal/sq.	385	A	1/2
C-5	Min. 2,500 psi concrete (not recover)	None	Min. 0.25-inch Invinsa	JM-RSUA or JM-OSFA or JM TWO-PART UIA or JM TWO-PART UIA-C	None	None	JM TPO 45, 60, or 80	JM TPO WB-MA, 1.12-1.42 gal/sq.	510	A	1/2
C-6	Min. 2,500 psi concrete (not recover)	None	Min. 1.5-inch ENRGY 3, ENRGY 3 CGF, ENRGY 3 FR	JM TWO-PART UIA or JM TWO-PART UIA-C	None	None	JM TPO 45, 60, or 80	JM MBA, 1.10 gal/sq.	650	A	1/2
C-7	Min. 2,500 psi concrete (not recover)	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, Invinsa Foam	JM TWO-PART UIA	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 TWO-PART UIA	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-LVOC, 1.67 gal/sq.	660	A	3/4

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

System No.	Roof Deck	Primer	Base Insulation Layer		Top Insulation Layer		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Attach	Type	Attach	Type	Attach		Class	Max Incline (in.)
C-8	Min. 2,500 psi concrete (not recover)	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, Invinsa Foam	JM TWO-PART UIA	Min. 1.5-inch Invinsa Foam	JM TWO-PART UIA	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	660	A	1/2
								JM TPO MA-LVOC, 1.67 gal/sq.		A	3/4
C-9	Min. 2,500 psi concrete (not recover)	None	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA or JM-OSFA or JM TWO-PART UIA or JM TWO-PART UIA-C	None	None	JM TPO 45, 60, or 80	JM LVOC-MA, 1.67 gal/sq.	720	A	3/4
C-10	Min. 2,500 psi concrete	None	Min. 7/16" DEXCell Cement Roof Board or Min. 0.25" DEXCell FA Glass Mat Roof Board	JM TWO-PART UIA or JM TWO-PART UIA-C or OlyBond 500	None	None	JM TPO 45, 60, or 80	JM LVOC-MA, 1.10-1.67 gal/sq.	680	A	1/4
								JM TPO WB-MA, 1.2-1.6 gal/sq.			1/2
								JM MBA, 50 to 90 ft_/gal.			1/2
C-11	Min. 2,500 psi concrete (not recover)	None	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA or JM-OSFA or JM TWO-PART UIA or JM TWO-PART UIA-C	None	None	JM TPO 45, 60, or 80	JM TPO WB-MA, 1.18-1.54 gal/sq.	930	A	1/2
C-12	Min. 2,500 psi concrete (not recover)	None	Min. 0.25-inch Invinsa	JM-RSUA or JM-OSFA or JM TWO-PART UIA or JM TWO-PART UIA-C	None	None	JM TPO 45, 60, or 80	JM MBA, 1.66 gal/sq.	930	A	3/4
C-13	Min. 2,500 psi concrete (not recover)	None	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA or JM-OSFA or JM TWO-PART UIA or JM TWO-PART UIA-C	None	None	JM TPO 45, 60, or 80	JM MBA, 1.66 gal/sq.	990	A	3/4

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

System No.	Roof Deck	Primer	Base Insulation Layer		Top Insulation Layer		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Attach	Type	Attach	Type	Attach		Class	Max Incline (in.)
C-14	Min. 2,500 psi concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 TWO-PART UIA	(Optional) Min. 0.25-inch DensDeck, Invinsa or ProtectoR HD, ProtectoR HD FR	JM TWO-PART UIA	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	210	A	1/2
C-15	Min. 2,500 psi concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 TWO-PART UIA	Min. 0.25-inch Invinsa or ProtectoR HD, ProtectoR HD FR	JM TWO-PART UIA	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB or JM TPO MA-SB	210	A	1/2
C-16	Min. 2,500 psi concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 TWO-PART UIA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM TWO-PART UIA	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	495	A	1/2
								JM TPO MA-LVOC, 1.67 gal/sq.		A	3/4
C-17	Min. 2,500 psi concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	495	A	1/2
								JM TPO MA-LVOC, 1.67 gal/sq.		A	3/4
C-18	Min. 2,500 psi concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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, Invinsa or ProtectoR HD, ProtectoR HD FR	JM-OSFA	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	150	A	1/2
C-19	Min. 2,500 psi concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	495	A	1/2
								JM TPO MA-LVOC, 1.67 gal/sq.		A	3/4

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

System No.	Roof Deck	Primer	Base Insulation Layer		Top Insulation Layer		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Attach	Type	Attach	Type	Attach		Class	Max Incline (in.)
JM TPO FB APPLICATIONS:											
C-20	Min. 2,500 psi concrete	None	Min. 1.5-inch ENRGY 3, ValuTherm	JM TWO-PART UIA	(Optional) Additional layers of base insulation	JM TWO-PART UIA	JM TPO FB 115 or 135	JM-RSUA, 12-inch o.c.	135	A	1/2
C-21	Min. 2,500 psi concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 TWO-PART UIA	Min. 0.5-inch Invinsa, SECUROCK Gypsum-Fiber Roof Board or ProtectoR HD, ProtectoR HD FR	JM TWO-PART UIA	JM TPO FB 115 or 135	JM-RSUA, 12-inch o.c.	135	A	1/2
C-22	Min. 2,500 psi 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.	135	A	1/2
C-23	Min. 2,500 psi concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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. 0.5-inch Invinsa or SECUROCK Gypsum-Fiber Roof Board or ProtectoR HD, ProtectoR HD FR	JM-RSUA	JM TPO FB 115 or 135	JM-RSUA, 12-inch o.c.	135	A	1/2
C-24	Min. 2,500 psi concrete	ASTM D41	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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	HA	(Optional) Additional layers of base insulation	HA	JM TPO FB 115 or 135	JM TPO MA-WB	210	A	1/2
C-25	Min. 2,500 psi concrete	ASTM D41	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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	HA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	HA	JM TPO FB 115 or 135	JM TPO MA-WB	210	A	2

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

System No.	Roof Deck	Primer	Base Insulation Layer		Top Insulation Layer		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Attach	Type	Attach	Type	Attach		Class	Max Incline (in.)
C-26	Min. 2,500 psi concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 TWO-PART UIA	(Optional) Additional layers of base insulation	JM TWO-PART UIA	JM TPO FB 115 or 135	JM TPO MA-WB	210	A	1/2
C-27	Min. 2,500 psi concrete	None	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 TWO-PART UIA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM TWO-PART UIA	JM TPO FB 115 or 135	JM TPO MA-WB	210	A	2
C-28	Min. 2,500 psi concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 MA-WB	210	A	1/2
C-29	Min. 2,500 psi concrete	None	Min. 2-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 MA-WB	210	A	2
C-30	Min. 2,500 psi concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	JM-RSUA or JM-OSFA or JM TWO-PART UIA or JM TWO-PART UIA-C	None	None	JM TPO FB 115 or 135	JM-RSUA, 4" o.c. or JM TWO-PART UIA, 4" o.c. or JM TWO-PART UIA-C1	225	A	1/2
C-31	Min. 2,500 psi concrete	None	Min. 1.5-inch ENRGY 3, ENRGY 3 CGF, ENRGY 3 FR	JM TWO-PART UIA or JM TWO-PART UIA-C	None	None	JM TPO FB 115 or 135	JM TPO WB-MA, 1.26-1.66 gal/sq.	375	A	3/4

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

System No.	Roof Deck	Primer	Base Insulation Layer		Top Insulation Layer		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108			
			Type	Attach	Type	Attach	Type	Attach		Class	Max Incline (in.)		
C-32	Min. 2,500 psi structural concrete (new or recover deck)	None	Min. 1.5" ENRGY 3, ENRGY 3 AGF, or ENRGY 3 CGF	JM TWO-PART UIA or JM TWO-PART UIA-C; 12" o.c.	None	None	JM TPO FB 150 or 175	HA	435	A	1/4		
C-33	Min. 2,500 psi concrete	None	Min. 0.25-inch Invinsa	JM-RSUA or JM-OSFA or JM TWO-PART UIA or JM TWO-PART UIA-C	None	None	JM TPO FB 115 or 135	JM TPO WB-MA, 1.12-1.42 gal/sq.	555	A	3/4		
C-34	Min. 2,500 psi concrete	None	Min. 7/16" DEXCell Cement Roof Board	JM TWO-PART UIA or JM TWO-PART UIA-C or OlyBond 500	None	None	JM TPO FB 115 or 135	JM TPO WB-MA, 1.2-1.6 gal/sq.	645	A	1/2		
C-35	Min. 2,500 psi concrete	None	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA or JM-OSFA or JM TWO-PART UIA or JM TWO-PART UIA-C	None	None	JM TPO FB 115 or 135	JM TPO WB-MA, 1.18-1.54 gal/sq.	690	A	1/2		
C-36	Min. 2,500 psi concrete	None	Min. 0.25" DEXCell FA Glass Mat Roof Board	JM TWO-PART UIA or JM TWO-PART UIA-C or OlyBond 500	None	None	JM TPO FB 115 or 135	JM TPO WB-MA, 1.2-1.6 gal/sq.	780	A	1/2		
							JM TPO FB 150				HA	A	1/2
							JM TPO 175					A	1
C-37	Min. 2,500 psi concrete	None	None	None	None	None	JM TPO FB 115 or 135	JM TWO-PART UIA-C1	915	A	1/2		
C-38	Min. 2,500 psi concrete	None	None	None	None	None	JM TPO FB 115 or 135	JM TWO-PART UIA-C1	990	A	1/2		
C-39	Min. 2,500 psi concrete	None	None	None	None	None	JM TPO FB 115 or 135	JM-RUSA2; 12" o.c.	1005	A	1/2		
JM TPO SA APPLICATIONS:													
C-40	Min. 2,500 psi concrete (New, Existing, or Recover)	None	Min. 1.5-inch ENRGY 3	JM TWO-PART UIA or JM TWO-PART UIA-C	(Optional) Invinsa, min. 0.25-inch or Protector HD, Protector HD FR	JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO SA	Self-Adhered	210	A	1/4		

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

System No.	Roof Deck	Primer	Base Insulation Layer		Top Insulation Layer		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Attach	Type	Attach	Type	Attach		Class	Max Incline (in.)
C-41	Min. 2,500 psi concrete	None	Min. 0.25-inch Invinsa or Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR	JM-RSUA or JM-OSFA or JM TWO-PART UIA or JM TWO-PART UIA-C	None	None	JM TPO SA	Self-Adhered	210	A	1/4
C42	Min. 2,500 psi concrete	None	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA or JM-OSFA or JM TWO-PART UIA or JM TWO-PART UIA-C	None	None	JM TPO SA	Self-Adhered	495	A	2
C-43	Min. 2,500 psi concrete	None	Min. 0.25" DEXCell FA Glass Mat Roof Board	JM TWO-PART UIA or JM TWO-PART UIA-C	None	None	JM TPO SA	Self-Adhered	780	A	1/4

TABLE 4A-2: CONCRETE DECKS - NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE A-1B: BONDED TEMP ROOF, BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Primer	Temporary Roof		Base Insulation Layer		Top Insulation Layer or Base Ply		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Attach	Type	Attach	Type	Attach	Type	Attach		Class	Max Incline (in.)
JM TPO FB APPLICATIONS:													
C-44	Min. 2,500 psi concrete	JM SA Primer Low VOC	JM Vapor Barrier SA	Self-Adhered	Min. 1.5-inch ENRGY 3, ValuTherm	JM TWO-PART UIA	(Optional) Additional layers of base insulation	JM TWO-PART UIA	JM TPO FB 115 or 135	JM-RSUA, 12-inch o.c.	135	A	1/2
C-45	Min. 2,500 psi concrete	JM SA Primer Low VOC	JM Vapor Barrier SA	Self-Adhered	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 TWO-PART UIA	Min. 0.5-inch Invinsa, SECUROCK Gypsum-Fiber Roof Board or ProtectoR HD, ProtectoR HD FR or or min. 1.5-inch Invinsa Foam	JM TWO-PART UIA	JM TPO FB 115 or 135	JM-RSUA, 12-inch o.c.	135	A	1/2
C-46	Min. 2,500 psi concrete	JM SA Primer Low VOC	JM Vapor Barrier SA	Self-Adhered	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.	135	A	1/2
C-47	Min. 2,500 psi concrete	JM SA Primer Low VOC	JM Vapor Barrier SA	Self-Adhered	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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. 0.5-inch Invinsa, SECUROCK Gypsum-Fiber Roof Board or ProtectoR HD, ProtectoR HD FR	JM-RSUA	JM TPO FB 115 or 135	JM-RSUA, 12-inch o.c.	135	A	1/2
C-48	Min. 2,500 psi concrete	JM SA Primer Low VOC	(optional) JM Vapor Barrier SA	Self-Adhered	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	JM-RSUA or JM TWO-PART UIA or JM TWO-PART UIA-C	(Optional) Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board, Invinsa or ProtectoR HD, ProtectoR HD FR	JM-RSUA or JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO FB 115 or 135	JM-RSUA 12" o.c.	135	A	1/2
C-49	Min. 2,500 psi concrete	ASTM D 41 primer	DynaBase HW	torch adhered	Min. 1.5-inch ENRGY 3 CGF	JM-RSUA	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA	JM TPO FB 115 or 135	JM TPO WB-MA, 1.18-1.54 gal/sq.	595	A	2

TABLE 4A-2: CONCRETE DECKS - NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE A-1B: BONDED TEMP ROOF, BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Primer	Temporary Roof		Base Insulation Layer		Top Insulation Layer or Base Ply		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Attach	Type	Attach	Type	Attach	Type	Attach		Class	Max Incline (in.)
C-50	Min. 2,500 psi concrete	None	DynaBase HW	torch adhered	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA	None	None	JM TPO FB 115 or 135	JM TPO WB-MA, 1.18-1.54 gal/sq.	595	A	2
JM TPO SA APPLICATIONS:													
C-51	Min. 2,500 psi concrete	JM SA Primer Low VOC	(optional) JM Vapor Barrier SA		Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	JM-RSUA or JM TWO-PART UIA or JM TWO-PART UIA-C	(Optional) Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board or Invinsa, ProtectoR HD, ProtectoR HD FR	JM-RSUA or JM TWO-PART UIA or JM TWO-PART UIA-C	JM TPO SA	Self-Adhered	135	A	1/4
C-52	Min. 2,500 psi concrete	None	DynaBase HW	torch adhered	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA	None	None	JM TPO SA	Self-Adhered	495	A	1/4
C-53	Min. 2,500 psi concrete	ASTM D 41 primer	DynaBase HW	torch adhered	Min. 1.5-inch ENRGY 3 CGF	JM-RSUA	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA	JM TPO SA	Self-Adhered	495	A	1/4
JM TPO APPLICATIONS:													
C-54	Min. 2,500 psi concrete	ASTM D 41 primer	DynaBase HW	torch adhered	Min. 1.5-inch ENRGY 3 CGF	JM-RSUA	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA	JM TPO 46, 60, or 80	JM TPO WB-MA, 1.18-1.54 gal/sq.	595	A	1/4
										JM LVOC-MA, 1.66 gal/sq.			3/4
C-55	Min. 2,500 psi concrete	None	DynaBase HW	torch adhered	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	JM-RSUA	None	None	JM TPO 45, 60, or 80	JM TPO WB-MA, 1.18-1.54 gal/sq.	595	A	1/4
										or JM LVOC-MA, 1.66 gal/sq.			3/4

TABLE 4B: CONCRETE DECKS - NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Type	Fasteners	Attach	Type	Attach		Class	Max Incline (in.)
JM TPO APPLICATIONS:										
C-56	Min. 2,500 psi concrete or G33 Steel	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.375-inch SECUROCK Gypsum Fiber Roof Board	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Square)	1 per 2.67 ft ²	JM TPO 45, 60, or 80	JM MBA, 1.66-2.2 gal/sq.	90	A	1-1/2
C-57	Min. 2,500 psi concrete or G33 Steel	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Square)	1 per 4 ft ²	JM TPO 45, 60, or 80	JM MBA, 1.66-2.2 gal/sq. or JM LVOC MA	90	A	1-1/2
C-58	Min. 2,500 psi concrete or G33 Steel	(optional) <i>INSULATION</i>	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) or All Purpose Fasteners (Concrete Deck Only) with JM UltraFast Plates (Round and Square)	1 per 2 ft ²	JM TPO 45, 60, or 80	JM MBA, 1.66 gal/sq. or JM TPO WB-MA, 1.26-1.66 gal/sq. or JM LVOC , 1.10 gal/sq	90	A	1-1/2
C-59	Min. 2,500 psi concrete or G33, F1, L6, S24 Steel Deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Square)	1 per 1.33 ft ²	JM TPO 45, 60, or 80	JM MBA, 1.66-2.2 gal/sq. or JM LVOC MA	105	A	1-1/2
C-60	Min. 2,500 psi concrete or G33, F2, L6, S24 Steel Deck	(optional) <i>INSULATION</i>	Min. 2-inch ENRGY 3 CGF, ENRGY 3 FR	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Round and Square)	1 per 2.67 ft ²	JM TPO 45, 60, or 80	JM MBA, 1.66 gal/sq. or JM TPO MA-LVOC, 1.67 gal/sq. or JM TPO MA-WB	105	A	1/2

TABLE 4B: CONCRETE DECKS - NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind	Fire Rating UL790/E108	
C-61	Min. 2,500 psi concrete (New, Existing, or Recover) or G33, P, L6, S24 steel deck (New, Existing, or Recover)	(optional) <i>INSULATION</i>	Min. 1.5-inch ENRGY 3 CGF, ENRGY 3 FR	(Concrete Deck Only) All Purpose Fasteners or (Steel Deck Only) JM UltraFast Fasteners with UltraFast Square Metal Plates	1 per 1.78 ft ²	JM TPO 45, 60, or 80	JM TPO MBA or JM TPO MA-LVOC, 1.67 gal/sq. or JM TPO WB-MA, 1.26-1.66 gal/sq.	105	A	1/2
C-62	Min. 2,500 psi concrete or G33, F2W, L6, S24 steel deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Square)	1 per 1 ft ²	JM TPO 45, 60, or 80	JM MBA, 1.66-2.2 gal/sq. or JM TPO LVOC MA	120	A	1-1/2
C-63	Min. 2,500 psi concrete or G33, F2, L6, S24 steel deck	(optional) <i>INSULATION</i>	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	(Concrete Deck Only) All Purpose Fasteners or (Steel Deck Only) JM UltraFast Fasteners with UltraFast Square Metal Plates	1 per 1.78 ft ²	JM TPO 45, 60, or 80	JM TPO LVOC MA, 1.66-2.2 gal/sq	120	A	1/2
C-64	Min. 2,500 psi concrete or G33, F2, L6, S24 steel deck	(optional) <i>INSULATION</i>	Min. 2-inch ENRGY 3 CGF, ENRGY 3 FR	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Round and Square)	1 per 2 ft ²	JM TPO 45, 60, or 80	JM MBA, 1.66 gal/sq. or JM TPO MA-LVOC, 1.67 gal/sq. or JM TPO WB-MA, 1.26-1.66 gal/sq.	135	A	1/2
C-65	Min. 2,500 psi concrete or G33, F2, L6, S24 steel deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	(Concrete Deck Only) All Purpose Fasteners or (Steel Deck Only) JM UltraFast Fasteners with UltraFast Square Metal Plates	1 per 1 ft ²	JM TPO 45, 60, or 80	JM TPO WB-MA, 1.18-1.54 gal/sq.	165	A	2
C-66	Min. 2,500 psi concrete or G80, F2, L6, S24 steel deck	(optional) <i>INSULATION</i>	Min. 2-inch ENRGY 3 CGF, ENRGY 3 FR	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Round and Square)	1 per 1.33 ft ²	JM TPO 45, 60, or 80	JM MBA, 1.66 gal/sq. or JM TPO MA-LVOC, 1.67 gal/sq. or JM TPO WB-MA, 1.26-1.66 gal/sq.	210	A	1/2

TABLE 4B: CONCRETE DECKS - NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind	Fire Rating	
									UL790/E108	
C-67	Min. 2,500 psi concrete or G80, F1W, L6, S24 steel deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Square)	1 per 1 ft ²	JM TPO 45, 60, or 80	JM TPO WB-MA, 1.18-1.54 gal/sq.	300	A	2
JM TPO FB APPLICATIONS:										
C-68	Min. 2,500 psi concrete or G33 Steel	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.375-inch SECUROCK Gypsum Fiber Roof Board	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Square)	1 per 2.67 ft ²	JM TPO FB 115 or 135	JM TPO WB-MA, 1.18-1.54 gal/sq.	90	A	2
C-69	Min. 2,500 psi concrete or G33 Steel	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Square)	1 per 4 ft ²	JM TPO FB 115 or 135	JM TPO WB-MA, 1.18-1.54 gal/sq.	90	A	2
C-70	Min. 2,500 psi concrete or G33, F1, L6, S24 Steel Deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Square)	1 per 1.33 ft ²	JM TPO FB 115 or 135	JM TPO WB-MA, 1.18-1.54 gal/sq.	105	A	2
C-71	Min. 2,500 psi concrete or G33, F1, L6, S24 Steel Deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Square)	1 per 1.33 ft ²	JM TPO FB 150 or 175	Base Ply (Optional): Torched Adhered; Membrane: HA	105	A	1/2
C-72	Min. 2,500 psi concrete (New, Existing, or Recover) or G33, F2, L6, S18 Steel Deck	(optional) <i>INSULATION</i>	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	All Purpose Fasteners or JM UltraFast Fasteners (Steel Deck Only) and JM UltraFast Plates (Square or Round)	1 per 1.78 ft ²	JM TPO FB 150 or 175	HA	105	A	3/4

TABLE 4B: CONCRETE DECKS - NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind	Fire Rating UL790/E108	
C-73	Min. 2,500 psi concrete or G33, F2W, L6, S24 Steel Deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Square)	1 per 1 ft ²	JM TPO FB 115 or 135	JM TPO WB-MA, 1.18-1.54 gal/sq.	120	A	2
C-74	Min. 2,500 psi concrete or G33, F2, L6, S24 steel deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	(Concrete Deck Only) All Purpose Fasteners JM UltraFast Fasteners (Steel Deck Only) and UltraFast Square Metal Plates	1 per 1 ft ²	JM TPO FB 115 or 135	JM TPO WB-MA, 1.18-1.54 gal/sq.	165	A	2
C-75	Min. 2,500 psi concrete or G80, F1W, L6, S24 steel deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	(Concrete Deck Only) All Purpose Fasteners JM UltraFast Fasteners (Steel Deck Only) and UltraFast Square Metal Plates	1 per 1 ft ²	JM TPO FB 115 or 135	JM TPO WB-MA, 1.18-1.54 gal/sq.	300	A	2
JM TPO SA APPLICATIONS:										
C-76	Min. 2,500 psi concrete or G33, F1, L6, S24 Steel Deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Square)	1 per 1.33 ft ²	JM TPO SA	Self-Adhered	105	A	2
C-77	Min. 2,500 psi concrete or G33, F2, L6, S24 Steel Deck	(optional) <i>INSULATION</i>	Min. 2-inch ENRGY 3 CGF, ENRGY 3 FR	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Round and Square)	1 per 2.67 ft ²	JM TPO SA	Self-Adhered	105	A	1/4
C-78	Min. 2,500 psi concrete or G33, F2W, L6, S24 Steel Deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.25-inch SECUROCK Gypsum Fiber Roof Board	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Square)	1 per 1 ft ²	JM TPO SA	Self-Adhered	120	A	2

TABLE 4B: CONCRETE DECKS - NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover		Tested Wind	Fire Rating UL790/E108	
C-79	Min. 2,500 psi concrete or G33, F2, L6, S24	(optional) <i>INSULATION</i>	Min. 1.5-inch ENRGY 3 CGF, ENRGY 3 FR	(Concrete Deck Only) All Purpose Fasteners JM UltraFast Fasteners (Steel Deck Only) and UltraFast Square Metal Plates	1 per 1.78 ft ²	JM TPO SA	Self-Adhered	120	A	1/4
C-80	Min. 2,500 psi concrete or G33, F2, L6, S24 Steel Deck	(optional) <i>INSULATION</i>	Min. 2-inch ENRGY 3 CGF, ENRGY 3 FR	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Round and Square)	1 per 2 ft ²	JM TPO SA	Self-Adhered	135	A	1/4
C-81	Min. 2,500 psi concrete or G33, F2, L6, S24 Steel Deck	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	(Concrete Deck Only) All Purpose Fasteners JM UltraFast Fasteners (Steel Deck Only) and UltraFast Square Metal Plates	1 per 1 ft ²	JM TPO SA	Self-Adhered	165	A	2
C-82	Min. 2,500 psi concrete or G80, F2, L6, S24 Steel Deck	(optional) <i>INSULATION</i>	Min. 2-inch ENRGY 3 CGF, ENRGY 3 FR	All Purpose Fasteners (Concrete Deck Only) or Structural Concrete Deck Fasteners (Concrete Deck Only) with UltraFast 3" Round Metal Plates or UltraFast Fasteners (Steel Deck Only) with JM UltraFast Plates (Round and Square)	1 per 1.33 ft ²	JM TPO SA	Self-Adhered	210	A	1/4
C-83	Min. 2,500 psi concrete or G80, F1W, L6, S24	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 FR	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	(Concrete Deck Only) All Purpose Fasteners JM UltraFast Fasteners (Steel Deck Only) and UltraFast Square Metal Plates	1 per 1 ft ²	JM TPO SA	Self-Adhered	300	A	2

**TABLE 4C: CONCRETE DECKS - NEW CONSTRUCTION, REROOF (Tear-Off), or RECOVER
SYSTEM TYPE D: INSULATED, MECHANICALLY ATTACHED ROOF COVER (STRESS PLATES)**

System No.	Deck (See Note 1)	Insulation		Roof Cover			Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Type	Attachment	Membrane	Fasteners	Attachment		Class	Max Incline (in.)
C-84	Min. 2,500 psi concrete or G33, L6 steel deck	(optional) <i>INSULATION</i> followed by min. 1-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR followed by min. 0.25" Invinsa Roof Board or ProtectoR HD, ProtectoR HD FR	Prelim. attached	JM TPO 46, 60, or 80 (10 ft sheet)	All Purpose Fasteners (Concrete deck only) or High Load Fasteners (Steel Deck only) with High Load Plus Plates	12-in. oc within 6-in. wide laps spaced 114-in. oc Laps sealed with 1.5-in. heat weld outside lap	60	A	3/4
C-85	Min. 2,500 psi concrete or G80, L6, F2W, S24 Steel Deck	(optional) <i>INSULATION</i> followed by min. 1-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR	Prelim. attached	JM TPO 60 or 80 (8 ft sheet)	All Purpose Fasteners (Concrete Deck only) or High Load Fasteners (Steel Deck Only) with High Load Plates	12-in. oc within 6-in. wide laps spaced 90-in. oc Laps sealed with 1.5-in. heat weld outside lap	75	A	3/4
C-86	Min. 2,500 psi concrete or G80, L6, F2W, S24 Steel Deck	(optional) <i>INSULATION</i> followed by min. 1-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR	Prelim. attached	JM TPO 45, 60, or 80 (8 ft sheet)	All Purpose Fasteners (Concrete Deck only) or High Load Fasteners (Steel Deck Only) with High Load Plus Plates	12-in. oc within 6-in. wide laps spaced 90-in. oc Laps sealed with 1.5-in. heat weld outside lap	90	A	3/4
C-87	Min. 2,500 psi concrete (not recover) or G80 F1, L6, S18 Steel Deck (not recover)	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR followed by (optional) min. 1" ENRGY 3, min. 0.25" DensDeck, SECUROCK Gypsum Roof Board, Invinsa Roof Board or ProtectoR HD, or ProtectoR HD FR	Prelim. attached	JM TPO 45, 60, or 80 (10 ft sheet)	All Purpose Fasteners with High Load Plates (Concrete Deck Only) or Extra High Load Fasteners and Extra High Load Plates (Steel Deck Only)	12-in. oc within 6-in. wide laps spaced 114-in. oc Laps sealed with 1.5-in. heat weld outside lap	90	A	3/4
C-88	Min. 2,500 psi concrete (not recover) or G80 F1, L6, S18 Steel Deck (not recover)	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR followed by (optional) min. 0.5" ENRGY 3, min. 0.25" DensDeck, SECUROCK Gypsum Roof Board or Invinsa Roof Board or ProtectoR HD, ProtectoR HD FR	Prelim. attached	JM TPO 45, 60, or 80 (10 ft sheet)	All Purpose Fasteners (Concrete Deck Only) or High Load Fasteners (Steel Deck Only) with High Load Plates	6-in. oc within 6-in. wide laps spaced 114-in. oc Laps sealed with 1.5-in. heat weld outside lap	90	A	3/4
C-89	Min. 2,500 psi concrete (not recover) or G80 F1, L6, S18 Steel Deck (not recover)	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR followed by (optional) min. 1" ENRGY 3, min. 0.25" DensDeck, SECUROCK Gypsum Roof Board, Invinsa Roof Board or ProtectoR HD, ProtectoR HD FR	Prelim. attached	JM TPO 45, 60, or 80 (10 ft sheet)	All Purpose Fasteners with High Load Plates (Concrete Deck Only) or Extra High Load Fasteners and Extra High Load Plates (Steel Deck Only)	6-in. oc within 6-in. wide laps spaced 114-in. oc Laps sealed with 1.5-in. heat weld outside lap	105	A	3/4
C-90	Min. 2,500 psi concrete (not recover) or G33 F3, L6, Steel Deck (not recover)	(optional) <i>INSULATION</i> followed by min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR followed by (optional) min. 0.5" ENRGY 3, min. 0.25" DensDeck, SECUROCK Gypsum Roof Board, Invinsa Roof Board or ProtectoR HD, ProtectoR HD FR	Prelim. attached	JM TPO 45, 60, or 80 (8 ft sheet)	All Purpose Fasteners (Concrete Deck Only) or High Load Fasteners (Steel Deck Only) with High Load Plates	6-in. oc within 6-in. wide laps spaced 90-in. oc Laps sealed with 1.5-in. heat weld outside lap	120	A	3/4

**TABLE 4C: CONCRETE DECKS - NEW CONSTRUCTION, REROOF (Tear-Off), or RECOVER
SYSTEM TYPE D: INSULATED, MECHANICALLY ATTACHED ROOF COVER (STRESS PLATES)**

System No.	Deck (See Note 1)	Insulation		Roof Cover			Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Type	Attachment	Membrane	Fasteners	Attachment		Class	Max Incline (in.)
C-91	Min. 2,500 psi concrete or G33, P, L6 Steel Deck	(optional) <i>INSULATION</i> followed by min. 0.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, SeparatoR FR (Recover Only) or ENRGY 3 FR followed by min. 0.25" Invinsa Roof Board or ProtectoR HD, ProtectoR HD FR or SECUROCK or min. 0.5" ENRGY 3	Prelim. attached	JM TPO 45, 60, or 80 (10 ft sheet)	All Purpose Fasteners (Concrete Deck Only) or High Load Fasteners (Steel Deck Only) with High Load Plates	6-in. oc within 6-in. wide laps spaced 114-in. oc Laps sealed with 1.5-in. heat weld outside lap	120	A	3/4
C-92	Min. 2,500 psi concrete or G33, P, L6 Steel Deck	(optional) <i>INSULATION</i> followed by min. 0.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, SeparatoR FR (Recover Only) or ENRGY 3 FR followed by min. 0.25" Invinsa Roof Board, ProtectoR HD, or ProtectoR HD FR or SECUROCK or min. 0.5" ENRGY 3	Prelim. attached	JM TPO 45, 60, or 80 (8 ft sheet)	All Purpose Fasteners (Concrete Deck Only) or High Load Fasteners (Steel Deck Only) with High Load Plates	6-in. oc within 6-in. wide laps spaced 90-in. oc Laps sealed with 1.5-in. heat weld outside lap	150	A	3/4
C-93	Min. 2,500 psi concrete or G33, P, L6 Steel Deck	(optional) <i>INSULATION</i> followed by min. 0.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, SeparatoR FR (Recover Only) or ENRGY 3 FR followed by min. 0.25" Invinsa Roof Board, ProtectoR HD, or ProtectoR HD FR or SECUROCK or min. 0.5" ENRGY 3	Prelim. attached	JM TPO 45, 60, or 80 (5 ft sheet)	All Purpose Fasteners (Concrete Deck Only) or High Load Fasteners (Steel Deck Only) with High Load Plates	6-in. oc within 6-in. wide laps spaced 54-in. oc Laps sealed with 1.5-in. heat weld outside lap	195	A	3/4

**TABLE 5A: LIGHTWEIGHT CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A: BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck (See Note 1)		Insulation/Cover Board		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
	Structural	LWC	Type	Attach	Type	Attach		Class	Max Incline (in.)
JM TPO APPLICATIONS:									
LW-1	Min. 2,500 psi concrete or G33 Steel Deck	Min. 1/8" thick slurry coat of min. 340 psi. Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture applied over deck treated with Celcore S-1, followed by a 1" thick, EPS board and a min. 2" thick top coat. Celcore PVA Curing Compound applied at a rate of 300 ft ² /gal.	Min. 1.5" ENRGY 3	JM RSUA, 12" o.c.	JM TPO 45, 60, 80	JM MBA, 1.66 gal/sq. JM TPO WB-MA, 1.26-1.42 gal/sq., or JM LVOC MA, 1.6 gal/sq	155	A	1/2
LW-2	Min. 2,500 psi concrete or G33 Steel Deck	Min. 1/8" thick slurry coat of min. 340 psi. Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture applied over deck treated with Celcore S-1, followed by a 1" thick, EPS board and a min. 2" thick top coat. Celcore PVA Curing Compound applied at a rate of 300 ft ² /gal.	BASE Min. 1.5" ENRGY 3 or ENRGY 3 CGF TOP SECUROCK Gypsum-Fiber Roof Board	JM RSUA, 12" o.c.	JM TPO 45, 60, 80	JM TPO WB-MA, 1.18-1.54 gal/sq.	155	A	1/2
						JM LVOC MA, 1.6 gal/sq		A	3/4
LW-3	Min. 2,500 psi concrete or G33 Steel Deck	Min. 300 psi Poured in place Cellular Lightweight Concrete with encapsulated insulation board	Min. 1.5" ENRGY 3	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM TPO 45, 60, 80	JM MBA, 1.66 gal/sq., JM TPO WB-MA, 1.26-1.42 gal/sq., or JM LVOC MA. 1.6-gal/sq	160	A	1/2
LW-4	Min. 2,500 psi concrete or G33 Steel Deck	Min. 300 psi Poured in place Cellular Lightweight Concrete with encapsulated insulation board	BASE Min. 1.5" ENRGY 3 or ENRGY 3 AGF TOP SECUROCK Gypsum-Fiber Roof Board	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM TPO 45, 60, 80	JM TPO WB-MA, 1.18-1.54 gal/sq.	160	A	1/2
						JM LVOC MA, 1.6 gal/sq.		A	3/4

TABLE 5A: LIGHTWEIGHT CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)		Insulation/Cover Board		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
	Structural	LWC	Type	Attach	Type	Attach		Class	Max Incline (in.)
LW-5	Min. 2,500 psi concrete or G33 Steel Deck	Min. 1/8" thick slurry coat of min. 310 psi. Elastizell with Zell-Crete Fibers applied over deck, followed by a 1" thick, EPS board and a min. 2" thick top coat.	Min. 1.5" ENRGY 3	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM TPO 45, 60, 80	JM MBA, 1.66 gal/sq., JM TPO WB-MA, 1.26-1.42 gal/sq. or JM LVOC MA, 1.6 gal/sq	260	A	1/2
LW-6	Min. 2,500 psi concrete or G33 Steel Deck	Min. 1/8" thick slurry coat of min. 310 psi. Elastizell with Zell-Crete Fibers applied over deck, followed by a 1" thick, EPS board and a min. 2" thick top coat.	<u>BASE</u> Min. 1.5" ENRGY 3 or ENRGY 3 AGF <u>TOP</u> SECUROCK Gypsum-Fiber Roof Board	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM TPO 45, 60, 80	JM TPO WB-MA, 1.18-1.54 gal/sq.	260	A	1/2
						JM LVOC MA, 1.6 gal/sq			A
JM TPO FB APPLICATIONS:									
LW-7	Min. 2,500 psi concrete or G33 Steel Deck	Min. 1/8" thick slurry coat of min. 340 psi. Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture applied over deck treated with Celcore S-1, followed by a 1" thick, EPS board and a min. 2" thick top coat. Celcore PVA Curing Compound applied at a rate of 300 ft ² /gal.	Min. 1.5" ENRGY 3	JM RSUA, 12" o.c.	JM TPO FB 115 or 135	JM TPO WB-MA, 1.18-1.54 gal/sq.	155	A	1/2
LW-8	Min. 2,500 psi concrete or G33 Steel Deck	Min. 1/8" thick slurry coat of min. 340 psi. Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture applied over deck treated with Celcore S-1, followed by a 1" thick, EPS board and a min. 2" thick top coat. Celcore PVA Curing Compound applied at a rate of 300 ft ² /gal.	<u>BASE</u> Min. 1.5" ENRGY 3 or ENRGY 3 CGF <u>TOP</u> SECUROCK Gypsum-Fiber Roof Board	JM RSUA, 12" o.c.	JM TPO FB 115 or 135	JM TPO WB-MA, 1.18-1.54 gal/sq.	155	A	2
LW-9	Min. 2,500 psi concrete or G33 Steel Deck	Min. 300 psi Poured in place Cellular Lightweight Concrete with encapsulated insulation board	Min. 1.5" ENRGY 3	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM TPO FB 115 or 135	JM TPO WB-MA, 1.18-1.54 gal/sq.	160	A	1/2

**TABLE 5A: LIGHTWEIGHT CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A: BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck (See Note 1)		Insulation/Cover Board		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
	Structural	LWC	Type	Attach	Type	Attach		Class	Max Incline (in.)
LW-10	Min. 2,500 psi concrete or G33 Steel Deck	Min. 300 psi Poured in place Cellular Lightweight Concrete with encapsulated insulation board	<u>BASE</u> Min. 1.5" ENRGY 3 or ENRGY 3 AGF <u>TOP</u> SECUROCK Gypsum-Fiber Roof Board	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM TPO FB 115 or 135	JM TPO WB-MA, 1.18-1.54 gal/sq.	160	A	2
LW-11	Min. 2,500 psi concrete or G33 Steel Deck	Min. 1/8" thick slurry coat of min. 310 psi. Elastizell with Zell-Crete Fibers applied over deck, followed by a 1" thick, EPS board and a min. 2" thick top coat.	Min. 1.5" ENRGY 3	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM TPO FB 115 or 135	JM TPO WB-MA, 1.18-1.54 gal/sq.	260	A	1/2
LW-12	Min. 2,500 psi concrete or G33 Steel Deck	Min. 1/8" thick slurry coat of min. 310 psi. Elastizell with Zell-Crete Fibers applied over deck, followed by a 1" thick, EPS board and a min. 2" thick top coat.	<u>BASE</u> Min. 1.5" ENRGY 3 or ENRGY 3 AGF <u>TOP</u> SECUROCK Gypsum-Fiber Roof Board	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM TPO FB 115 or 135	JM TPO WB-MA, 1.18-1.54 gal/sq.	260	A	2
JM TPO SA APPLICATIONS:									
LW-13	Min. 2,500 psi concrete or G33 Steel Deck	Min. 1/8" thick slurry coat of min. 340 psi. Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture applied over deck treated with Celcore S-1, followed by a 1" thick, EPS board and a min. 2" thick top coat. Celcore PVA Curing Compound applied at a rate of 300 ft ² /gal.	Min. 1.5" ENRGY 3	JM RSUA, 12" o.c.	JM TPO SA	Self-Adhered	155	A	1/4

TABLE 5A: LIGHTWEIGHT CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)		Insulation/Cover Board		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
	Structural	LWC	Type	Attach	Type	Attach		Class	Max Incline (in.)
LW-14	Min. 2,500 psi concrete or G33 Steel Deck	Min. 1/8" thick slurry coat of min. 340 psi. Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture applied over deck treated with Celcore S-1, followed by a 1" thick, EPS board and a min. 2" thick top coat. Celcore PVA Curing Compound applied at a rate of 300 ft ² /gal.	<u>BASE</u> Min. 1.5" ENRGY 3 or ENRGY 3 CGF <u>TOP</u> SECUROCK Gypsum-Fiber Roof Board	JM RSUA, 12" o.c.	JM TPO SA	Self-Adhered	155	A	2
LW-15	Min. 2,500 psi concrete or G33 Steel Deck	Min. 300 psi Poured in place Cellular Lightweight Concrete with encapsulated insulation board	Min. 1.5" ENRGY 3	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM TPO SA	Self-Adhered	160	A	1/4
LW-16	Min. 2,500 psi concrete or G33 Steel Deck	Min. 300 psi Poured in place Cellular Lightweight Concrete with encapsulated insulation board	<u>BASE</u> Min. 1.5" ENRGY 3 or ENRGY 3 AGF <u>TOP</u> SECUROCK Gypsum-Fiber Roof Board	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM TPO SA	Self-Adhered	160	A	2
LW-17	Min. 2,500 psi concrete or G33 Steel Deck	Min. 1/8" thick slurry coat of min. 310 psi. Elastizell with Zell-Crete Fibers applied over deck, followed by a 1" thick, EPS board and a min. 2" thick top coat.	Min. 1.5" ENRGY 3	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM TPO SA	Self-Adhered	260	A	1/4
LW-18	Min. 2,500 psi concrete or G33 Steel Deck	Min. 1/8" thick slurry coat of min. 310 psi. Elastizell with Zell-Crete Fibers applied over deck, followed by a 1" thick, EPS board and a min. 2" thick top coat.	<u>BASE</u> Min. 1.5" ENRGY 3 or ENRGY 3 AGF <u>TOP</u> SECUROCK Gypsum-Fiber Roof Board	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM TPO SA	Self-Adhered	260	A	2

**TABLE 5B-1: LIGHTWEIGHT CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE E-1A: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED MEMBRANE**

System No.	Deck (See Note 1)		Base Sheet		Roof Cover		Tested Wind Uplift(psf)	Fire Rating UL790/E108	
	Structural	LWC	Type	Attach	Type	Attach		Class	Max Incline (in.)
JM TPO FB APPLICATIONS:									
LW-19	Min. 2,500 psi concrete or G33, P, L6, S18 Steel Deck	Min. 1/8" thick slurry coat of min. 200 psi. Elastizell with Zell-Crete Fibers applied over deck, followed by a 1" thick, EPS board and a min. 2" thick top coat.	PermaPly 28	Min. 1.7" LWC CR Base Sheet Fasteners secured 9" o.c. at the lap and 9" o.c. in two equally spaced staggered rows in the field	JM TPO FB 150	HA	90	A	1/4
					JM TPO 175			A	1/2

**TABLE 5B-2: LIGHTWEIGHT CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE E-1B: NON-INSULATED, MECHANICALLY ATTACHED OR WELDED ROOF COVER**

System No.	Deck (See Note 1)		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
	Structural	LWC	Type	Attach		Class	Max Incline (in.)
JM TPO APPLICATIONS:							
LW-20	Min. 2,500 psi concrete or G40, P, L6, S18 Steel Deck	Min. 1/8" thick slurry coat of min. 200 psi. Elastizell with Zell-Crete Fibers applied over deck, followed by a 1" thick, EPS board and a min. 2" thick top coat.	JM TPO 60, or 80	Induction welded to JM TPO RhinoPlates and JM All Purpose Fasteners (Concrete Deck only) or High Load Fasteners (Steel Deck Only) secured 6" o.c. in rows spaced 96" o.c.	120	A	3/4
LW-21	Min. 2,500 psi concrete or G40, P, L6, S18 Steel Deck	Min. 1/8" thick slurry coat of min. 200 psi. Elastizell with Zell-Crete Fibers applied over deck, followed by a 1" thick, EPS board and a min. 2" thick top coat.	JM TPO 45, 60, or 80 (8 ft sheet)	Attached in-lap 6" o.c. with JM All Purpose Fasteners (Concrete Deck Only) or High Load Fasteners (Steel Deck Only) and High Load Plates; Fastener rows max. 90" o.c.	135	A	3/4

**TABLE 5C: LIGHTWEIGHT CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER**

System No.	Deck (See Note 1)			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
	Structural	Vapor Barrier	LWC	Type	Attach		Class	Max Incline (in.)
JM TPO FB APPLICATIONS:								
LW-22	G33, L6, F1W, S12 Steel Deck	-	Min. 1/8" thick slurry coat of min. 475 psi. Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture, followed by a 1" thick, EPS board and a min. 2" thick top coat. Celcore PVA Curing Compound applied at a rate of 300 ft ² /gal.	JM TPO FB 115 or 135	JM RSUA, 12" o.c.	90	A	1/2
LW-23	G80 Steel Deck	-	Min. 1/8" thick slurry coat of min. 213.5 psi. Elastizell with Zell-Crete Fibers applied over deck, followed by a 1" thick, EPS board and a min. 2" thick top coat.	JM TPO FB 115 or 135	JM RSUA, 6" o.c.	195	A	1/2
LW-24	Min. 2,500 psi concrete	(Optional) JM Vapor Barrier SA or DynaBase HW over ASTM D 41 primed concrete deck	Min. 1/8" thick slurry coat of min. 383.5 psi. Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture, followed by a 1" thick, EPS board and a min. 2" thick top coat.	JM TPO FB 115 or 135	JM RSUA, 6" o.c.	225	A	1/2
LW-25	Min. 2,500 psi concrete	-	Min. 1/8" thick slurry coat of min. 375 psi. Concrecel applied over deck, followed by a 1" thick, EPS board and a min. 2" thick top coat.	JM TPO FB 115 or 135	JM RSUA, 12" o.c.	295	A	1/2
LW-26	Min. 2,500 psi concrete	(Optional) DynaBase HW	Min. 1/8" thick slurry coat of min. 475 psi. Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture, followed by a 1" thick, EPS board and a min. 2" thick top coat. Celcore PVA Curing Compound applied at a rate of 300 ft ² /gal.	JM TPO FB 115 or 135	JM RSUA, 12" o.c.	335	A	1/2
LW-27	Cementitious Wood Fiber	-	Min. 1/8" thick slurry coat of min. 475 psi. Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture, followed by a 1" thick, EPS board and a min. 2" thick top coat. Celcore PVA Curing Compound applied at a rate of 300 ft ² /gal.	JM TPO FB 115 or 135	JM RSUA, 12" o.c.	335	A	1/2
LW-28	Min. 2,500 psi concrete	-	Min. 1/8" thick slurry coat of min. 375 psi. Concrecel applied over deck, followed by a 1" thick, EPS board and a min. 2" thick top coat.	JM TPO FB 115 or 135	JM RSUA, 6" o.c.	345	A	1/2

**TABLE 5C: LIGHTWEIGHT CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER**

System No.	Deck (See Note 1)			Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
	Structural	Vapor Barrier	LWC	Type	Attach		Class	Max Incline (in.)
LW-29	Cementitious Wood Fiber	-	Min. 1/8" thick slurry coat of min. 475 psi. Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture, followed by a 1" thick, EPS board and a min. 2" thick top coat. Celcore PVA Curing Compound applied at a rate of 300 ft ² /gal.	JM TPO FB 115 or 135	JM RSUA, 4" o.c.	395	A	1/2
LW-30	Min. 2,500 psi concrete	(Optional) DynaBase HW	Min. 1/8" thick slurry coat of min. 475 psi. Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture, followed by a 1" thick, EPS board and a min. 2" thick top coat. Celcore PVA Curing Compound applied at a rate of 300 ft ² /gal.	JM TPO FB 115 or 135	JM RSUA, 4" o.c.	515	A	1/2
LW-31	Min. 2,500 psi concrete	-	Min. 213.5 psi. Elastizell applied over deck	JM TPO FB 115 or 135	JM RSUA, 6" o.c.	480	A	1/2
JM TPO APPLICATIONS:								
LW-32	G80 Steel Deck	-	Min. 1/8" thick slurry coat of min. 250 psi. Elastizell with Zell-Crete Fibers applied over deck, followed by a 1" thick, EPS board and a min. 2" thick top coat.	JM TPO 45, 60, or 80	JM LVOC-MA, 1.10-1.67 gal/sq.	195	A	1/4
LW-33	G33 Steel Deck	-	Min. 1/8" thick slurry coat of min. 200 psi. Elastizell with Zell-Crete Fibers applied over deck, followed by a 1" thick, EPS board and a min. 2" thick top coat.	JM TPO 45, 60, or 80	JM MBA, 1.66 gal/sq.	360	A	1/2
LW-34	G33 Steel Deck	-	Min. 150 psi Poured in place Cellular Lightweight Concrete with encapsulated insulation board	JM TPO 45, 60, or 80	JM MBA, 1.66 gal/sq.	530	A	1/2
LW-35	Min. 2,500 psi concrete	-	Min. 1/8" thick slurry coat of min. 375 psi. Concrecel applied over deck, followed by a 1" thick, EPS board and a min. 2" thick top coat.	JM TPO 45, 60, or 80	JM TPO MA-LVOC, 1.5-2 gal/sq.	515	A	1/2
					JM LVOC-MA, 1.10-1.67 gal/sq.		A	1/4
LW-36	Min. 2,500 psi concrete	-	Min. 379 psi, min. 2" 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 TPO Reflexsa	JM TPO MA-LVOC, 1.67 gal/sq.	570	A	3/4
LW-37	Min. 2,500 psi concrete	-	Min. 350 psi, min. 2" 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 TPO Reflexsa	JM TPO MA-LVOC, 1.67 gal/sq.	735	A	3/4

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

System No.	Deck (See Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Type	Attach	Type	Attach	Type	Attach		Class	Max Incline (in.)
JM TPO APPLICATIONS:										
G-1	New or Existing poured gypsum	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, or ENRGY 3 CGF	JM TWO-PART UIA, 12" o.c. or JM UIA TWO-PART-C	-	-	JM TPO 60, 72, or 80	JM TPO WB-MA, 0.83 gal/sq. or JM LVOC-MA, 1.10 gal/sq.	150	A	1/2
G-2	New or Existing poured gypsum	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, or ENRGY 3 CGF	JM TWO-PART UIA, 12" o.c. or JM UIA TWO-PART-C	JM Invinsa Roof Board	JM TWO-PART UIA, 12" o.c. or JM UIA TWO-PART-C	JM TPO 60, 72, or 80	JM MBA, 1.66 gal/sq.	150	A	1/4
G-3	New or Existing poured gypsum	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, or ENRGY 3 CGF	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	SECUROCK Gypsum-Fiber Roof Board	JM RSUA or JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM TPO 60, 72, or 80	JM TPO WB MA, 0.59 0.77 gal/sq	150	A	2
							JM LVOC MA, 1.66 gal/sq			3/4
G-4	New or Existing poured gypsum	Min. 1-inch ENRGY 3	JM OSFA, 12" o.c.	-	-	JM TPO 60, 72, or 80	JM TPO WB MA, 0.83 gal/sq or JM LVOC MA, 1.66 gal/sq	155	A	1/2
G-5	New or Existing poured gypsum	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, or ENRGY 3 CGF	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	-	-	JM TPO 60, 72, or 80	JM TPO WB-MA, 0.83 gal/sq. or JM LVOC MA, 1.66 gal/sq	180	A	1/2
G-6	New or Existing poured gypsum	-	-	JM Invinsa Roof Board	JM OSFA, 12" o.c.	JM TPO 60, 72, or 80	JM MBA, 1.66 gal/sq.	185	A	1/4
G-7	Existing poured gypsum or gypsum plank	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 TWO-PART UIA	(Optional) Min. 0.25-inch DensDeck or Invinsa or min. 1.5-inch Invinsa Foam	JM TWO-PART UIA	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	210	A	1/2
G-8	Existing poured gypsum or gypsum plank	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 TWO-PART UIA	(Optional) Additional layers of base insulation	JM TWO-PART UIA	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-SB, JM TPO MA-LVOC, 1.67 gal/sq.	225	A	1/2

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

System No.	Deck (See Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Type	Attach	Type	Attach	Type	Attach		Class	Max Incline (in.)
JM TPO FB APPLICATIONS:										
G-9	New or Existing poured gypsum	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, or ENRGY 3 CGF	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	-	-	JM TPO FB 115 or 135	JM TPO WB-MA, 0.83 gal/sq. or JM RSUA, 12" o.c.	150	A	1/2
G-10	New or Existing poured gypsum	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, or ENRGY 3 CGF	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM Invisa Roof Board	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM TPO FB 115 or 135	JM RSUA, 12" o.c.	150	A	1/2
							JM TPO WB-MA, 0.56-0.71 gal/sq.			3/4
G-11	New or Existing poured gypsum	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, or ENRGY 3 CGF	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	SECUROCK Gypsum-Fiber Roof Board	JM RSUA or JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM TPO FB 115 or 135	JM TPO WB-MA, 0.59-0.77 gal/sq.	150	A	2
							JM RSUA, 12" o.c.			1/2
G-12	New or Existing poured gypsum	Min. 1-inch ENRGY 3	JM OSFA, 12" o.c.	-	-	JM TPO FB 115 or 135	JM TPO WB-MA, 0.63-0.83 gal/sq. or JM RSUA, 12" o.c.	155	A	1/2
G-13	New or Existing poured gypsum	Min. 1-inch ENRGY 3	JM OSFA, 12" o.c.	SECUROCK Gypsum-Fiber Roof Board	JM RSUA	JM TPO FB 115 or 135	JM TPO WB-MA, 0.59-0.77 gal/sq.	155	A	2
							JM RSUA, 12" o.c.			1/2
G-14	New or Existing poured gypsum	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, or ENRGY 3 CGF	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	-	-	JM TPO FB 115 or 135	JM TPO WB-MA, 0.59-0.83 gal/sq.	180	A	1/2
G-15	New or Existing poured gypsum			JM Invisa Roof Board	JM OSFA, 12" o.c.	JM TPO FB 115 or 135	JM RSUA, 12" o.c.	185	A	1/2
							JM TPO WB-MA, 0.56-0.71 gal/sq.			2
G-16	Existing poured gypsum or gypsum plank	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 TWO-PART UIA	(Optional) Additional layers of base insulation or Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM TWO-PART UIA	JM TPO FB 115 or 135	JM TPO MA-WB	210	A	1/2
JM TPO SA APPLICATIONS:										
G-17	New or Existing poured gypsum	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, or ENRGY 3 CGF	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM Invisa Roof Board	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM TPO SA	Self-Adhered	150	A	1/2

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

System No.	Deck (See Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Type	Attach	Type	Attach	Type	Attach		Class	Max Incline (in.)
G-18	New or Existing poured gypsum	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, or ENRGY 3 CGF	JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	SECUROCK Gypsum-Fiber Roof Board	JM RSUA or JM TWO-PART UIA, 12" o.c. or JM TWO-PART UIA-C	JM TPO SA	Self-Adhered	150	A	2
G-19	New or Existing poured gypsum	Min. 1.5-inch ENRGY 3	JM OSFA, 12" o.c.	SECUROCK Gypsum-Fiber Roof Board	JM RSUA 12" o.c.	JM TPO SA	Self-Adhered	155	A	2

TABLE 6B: GYPSUM DECKS – NEW OR REROOF (TEAR-OFF)
SYSTEM TYPE E: NON-INSULATED, MECHANICALLY FASTENED BASE SHEET, BONDED ROOF COVER

System No.	Deck	Base Sheet		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Type	Attach	Type	Attach		Class	Max Incline (in.)
G-20	New or Existing poured gypsum	PermaPly 28	Min. 1.8" JM UltraLok Fastener secured 7" o.c. at the lap and 7" o.c. in two equally spaced and staggered rows in the field	JM TPO FB 150	HA	105	A	1/4
				JM TPO 175			A	1/2

TABLE 6C: GYPSUM DECKS – NEW OR REROOF (TEAR-OFF)
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

System No.	Deck	Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Type	Attach		Class	Max Incline (in.)
G-21	New or Existing poured gypsum	JM TPO FB 115 or 135	JM-RSUA, 12-in. oc	165	A	1/2
G-22	New or Existing poured gypsum	JM TPO FB 115 or 135	JM-RSUA, 6-in. oc	310	A	1/2

**TABLE 7A: CEMENTITIOUS WOOD FIBER DECKS - NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE A: BONDED INSULATION, BONDED ROOF COVER**

System No.	Roof Deck	Base Insulation Layer		Top Insulation Layer		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Type	Attach	Type	Attach	Type	Attach		Class	Max Incline (in.)
JM TPO APPLICATIONS:										
CWF-1	CWF	Min. 1.5-inch ENRGY 3	JM-RSUA	(Optional) SECUROCK Gypsum-Fiber Roof Board	JM TWO-PART UIA, JM TWO-PART UIA-C, JM-RSUA	JM TPO 45, 60, or 80	JM TPO WB-MA, 0.83 gal/sq. JM LVOC MA, 1.66 gal/sq.	270	A	1/4
									A	1/2
CWF-2	CWF	(Optional) Min. 1.5-inch ENRGY 3	JM-OSFA	SECUROCK Gypsum-Fiber Roof Board	JM-OSFA, JM TWO-PART UIA, JM UIA-TWO PART-C, JM-RSUA	JM TPO 45, 60, or 80	JM TPO WB-MA, 0.83 gal/sq. JM LVOC MA, 1.66 sq/sq.	280	A	1/2
									A	3/4
CWF-3	CWF	-	-	SECUROCK Gypsum-Fiber Roof Board	JM TWO-PART UIA, JM TWO-PART-C, JM-RSUA	JM TPO 45, 60, or 80	JM TPO WB-MA, 0.83 gal/sq. JM LVOC-MA, 1.66 gal/sq.	315	A	1/2
									A	3/4
CWF-4	CWF	Min. 1.5-inch ENRGY 3	JM-OSFA	-	-	JM TPO 45, 60, or 80	JM TPO WB-MA, 0.83 gal/sq. JM LVOC MA, 1.66 gal/sq.	315	A	1/4
									A	1/2
JM TPO FB APPLICATIONS:										
CWF-5	CWF	(Optional) Min. 1.5-inch ENRGY 3	JM-OSFA or JM-RSUA	JM Invinsa Roof Board	JM-OSFA, JM TWO-PART UIA, JM TWO-PART UIA-C, JM-RSUA	JM TPO FB 115 or 135	JM-RSUA, 12-inches o.c. JM TPO WB-MA, 0.83 gal/sq.	245	A	1/2
									A	1/2
CWF-6	CWF	Min. 1.5-inch ENRGY 3	JM-RSUA	(Optional) SECUROCK Gypsum-Fiber Roof Board	JM TWO-PART UIA, JM TWO-PART UIA-C, JM-RSUA	JM TPO FB 115 or 135	JM RSUA, 12-inches o.c. JM TPO WB-MA, 0.83 gal/sq.	270	A	1/2
									A	1/2
CWF-7	CWF	(Optional) Min. 1.5-inch ENRGY 3	JM-OSFA	SECUROCK Gypsum-Fiber Roof Board	JM-OSFA, JM TWO-PART UIA, JM TWO-PART UIA-C, JM-RSUA	JM TPO FB 115 or 135	JM TPO WB-MA, 0.83 gal/sq. JM-RSUA, 12" o.c.	280	A	2
									A	1/2
CWF-8	CWF	-	-	SECUROCK Gypsum-Fiber Roof Board	JM-OSFA, JM TWO-PART UIA, JM TWO-PART UIA-C, JM-RSUA	JM TPO FB 115 or 135	JM TPO WB-MA, 0.83 gal/sq.	315	A	2
CWF-9	CWF	Min. 1.5-inch ENRGY 3	JM-OSFA	-	-	JM TPO FB 115 or 135	JM TPO WB-MA, 0.83 gal/sq JM RSUA, 12" o.c.	315	A	1/2
									A	1/2
CWF-10	CWF	-	-	JM Invinsa Roof Board	JM-RSUA	JM TPO FB 115 or 135	JM TPO WB-MA, 0.83 gal/sq.	320	A	1/2
JM TPO SA APPLICATIONS:										
CWF-11	CWF	Min. 1.5-inch ENRGY 3	JM-RSUA	(Optional) SECUROCK Gypsum-Fiber Roof Board	JM TWO-PART UIA, JM TWO-PART UIA-C, JM-RSUA	JM TPO SA	Self-Adhered	270	A	1/4

TABLE 7A: CEMENTITIOUS WOOD FIBER DECKS - NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE A: BONDED INSULATION, BONDED ROOF COVER

System No.	Roof Deck	Base Insulation Layer		Top Insulation Layer		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Type	Attach	Type	Attach	Type	Attach		Class	Max Incline (in.)
CWF-12	CWF	(Optional) Min. 1.5-inch ENRGY 3	JM-OSFA	SECUROCK Gypsum-Fiber Roof Board	JM-OSFA, JM TWO-PART UIA, JM TWO-PART UIA-C, JM-RSUA	JM TPO SA	Self-Adhered	280	A	2
CWF-13	CWF	-	-	SECUROCK Gypsum-Fiber Roof Board	JM TWO-PART UIA, JM TWO-PART UIA-C, JM-RSUA	JM TPO SA	Self-Adhered	315	A	2

TABLE 8A: RECOVER APPLICATIONS
SYSTEM TYPE A: BONDED INSULATION, BONDED ROOF COVER

System No.	Substrate	Base Insulation Layer		Top Insulation Layer		Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Type	Attach	Type	Attach	Type	Attach		Class	Max Incline (in.)
JM TPO APPLICATIONS:										
R-1	Existing asphaltic BUR	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 TWO-PART UIA	Min. 0.25-inch DensDeck or Invinsa or min. 1.5-inch Invinsa Foam	JM TWO-PART UIA	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	210	A	3/4
R-2	Existing asphaltic BUR	Min. 0.25-inch DensDeck or Invinsa or min. 1.5-inch Invinsa Foam	JM TWO-PART UIA	N/A	N/A	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	210	A	3/4
R-3	Existing asphaltic BUR	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 TWO-PART UIA	(Optional) Additional layers of base insulation	JM TWO-PART UIA	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-SB	240	A	1/2
							JM TPO MA-LVOC, 1.67 gal/sq.		A	3/4
R-4	Existing asphaltic BUR	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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	JM-OSFA	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	150	A	3/4
R-5	Existing asphaltic BUR	Min. 0.25-inch DensDeck or Invinsa	JM-OSFA	N/A	N/A	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM TPO MA-WB, JM TPO MA-SB	150	A	3/4
JM TPO FB APPLICATIONS:										
R-6	Existing asphaltic BUR	Min. 1.5-inch ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, ENRGY 3 25 PSI, 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 TWO-PART UIA	(Optional) Additional layers of base insulation or Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	JM TWO-PART UIA	JM TPO FB 115 or 135	JM TPO MA-WB	210	A	1/2

**TABLE 8B: RECOVER OVER EXISTING METAL PANEL ROOF
SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, PLATE-BONDED ROOF COVER**

System No.	Deck (See Note 1)	Insulation Layer	Attachment		Roof Cover	Tested Wind Uplift (psf)	Fire Rating UL790/E108	
			Fasteners	Density			Class	Max Incline (in.)
R-7	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, ENRGY 3 25 PSI, 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 or SECUROCK Gypsum-Fiber Roof Board or min. 7/16-inch OSB	Preliminary Securement: UltraFast Plate-Bonded Securement: 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 bonded to JM TPO RhinoPlates with Rhinobond Plate bonding tool at 6 seconds per plate so tool reaches 400°F and cooled with RhinoBond Cooling Clamps	90	A	1/2
R-8	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, ENRGY 3 25 PSI, 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 or SECUROCK Gypsum-Fiber Roof Board or min. 7/16-inch OSB	Preliminary Securement: UltraFast Plate-Bonded Securement: 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 bonded to JM TPO RhinoPlates with Rhinobond Plate bonding tool at 6 seconds per plate so tool reaches 400°F and cooled with RhinoBond Cooling Clamps	90	A	1/2
R-9	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, ENRGY 3 25 PSI, 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 or SECUROCK Gypsum-Fiber Roof Board or min. 7/16-inch OSB	Preliminary Securement: UltraFast Plate-Bonded Securement: 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 bonded to JM TPO RhinoPlates with Rhinobond Plate bonding tool at 6 seconds per plate so tool reaches 400°F and cooled with RhinoBond Cooling Clamps	135	A	1/2
R-10	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, ENRGY 3 25 PSI, 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 or SECUROCK Gypsum-Fiber Roof Board or min. 7/16-inch OSB	Preliminary Securement: UltraFast Plate-Bonded Securement: 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 bonded to JM TPO RhinoPlates with Rhinobond Plate bonding tool at 6 seconds per plate so tool reaches 400°F and cooled with RhinoBond Cooling Clamps	240	A	1/2

**TABLE 8C: RECOVER OVER EXISTING METAL PANEL ROOF
SYSTEM TYPE D: INSULATED, MECHANICALLY ATTACHED ROOF COVER**

System No.	Deck (See Note 1)	Insulation			Roof Cover			Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Base Layer	Top Layer	Attach	Membrane	Fasteners	Attachment		Class	Max Incline (in.)
R-11	Existing metal roof having Min. 16 ga. steel purlins at max. 5 ft o.c.	(Optional) <i>INSULATION</i> under min. 1.5 ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR	Min. 1" <i>INSULATION</i> or min. 0.25" <i>Cover Board</i>	Prelim. Attached	JM TPO 45, 60, or 80	JM Purlin Fasteners and High Load Plates	Fasteners spaced 12" o.c. within 6" wide laps; fastener rows spaced 60" o.c. Laps sealed with 1.5" heat weld.	75	A	1/2
R-12	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, ENRGY 3 25 PSI, 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, SECUROCK Gypsum-Fiber Roof Board or Protector HD, Protector HD FR, or min. 7/16-inch OSB	Prelim. Attached	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM Purlin Fasteners with High Load Seam 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.	75	A	1/2
R-13	Existing metal roof having Min. 14 ga. steel purlins at max. 5 ft o.c.	(Optional) <i>INSULATION</i> under min. 1.5 ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR	Min. 1" <i>INSULATION</i> or min. 0.25" <i>Cover Board</i>	Prelim. Attached	JM TPO 45, 60, or 80	JM Purlin Fasteners and High Load Plates	Fasteners spaced 12" o.c. within 6" wide laps; fastener rows spaced 60" o.c. Laps sealed with 1.5" heat weld.	90	A	1/2
R-14	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, ENRGY 3 25 PSI, 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, SECUROCK Gypsum-Fiber Roof Board or Protector HD, Protector HD FR, or min. 7/16-inch OSB	Prelim. Attached	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM Purlin Fasteners with Extra High Load Seam 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.	90	A	1/2
R-15	Existing metal roof having Min. 16 ga. steel purlins at max. 5 ft o.c.	(Optional) <i>INSULATION</i> under min. 1.5 ENRGY 3, ENRGY 3 AGF, ENRGY 3 CGF, or ENRGY 3 FR	Min. 1" <i>INSULATION</i> or min. 0.25" <i>Cover Board</i>	Prelim. Attached	JM TPO 45, 60, or 80	JM Purlin Fasteners and High Load Plates	Fasteners spaced 6" o.c. within 6" wide laps; fastener rows spaced 60" o.c. Laps sealed with 1.5" heat weld.	165	A	1/2

**TABLE 8C: RECOVER OVER EXISTING METAL PANEL ROOF
SYSTEM TYPE D: INSULATED, MECHANICALLY ATTACHED ROOF COVER**

System No.	Deck (See Note 1)	Insulation			Roof Cover			Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Base Layer	Top Layer	Attach	Membrane	Fasteners	Attachment		Class	Max Incline (in.)
R-16	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, ENRGY 3 25 PSI, 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, SECUROCK Gypsum-Fiber Roof Board or ProtectoR HD, ProtectoR HD FR, or min. 7/16-inch OSB	Prelim. Attached	JM TPO 45, 60, 72 or 80, JM TPO Reflexsa	JM Purlin Fasteners with High Load Seam 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.	165	A	1/2

**TABLE 8D: RECOVER APPLICATIONS
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER**

System No.	Substrate (See Notes 1 & 10)	Roof Cover		Tested Wind Uplift (psf)	Fire Rating UL790/E108	
		Type	Attach		Class	Max Incline (in.)
R-17	Existing asphaltic granule surface cap sheet	JM TPO FB 115 or 135	JM-RSUA, 12-in. oc	90	A	3/4
R-18	BUR or Mod-Bit Roofing with mineral surfacing	JM TPO FB 115 or 135	JM-RSUA, 12-in. oc	90	A	3/4

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