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EVALUATION REPORT

Johns Manville Corporation

P.O. Box 5108

Denver, CO 80217

Evaluation Report J9340.05.08-R3

FL1037-R6

Date of Issuance: 05/19/2008

Revision 3: 04/28/2015

SCOPE:

This Evaluation Report is issued under Rule 61G20-3 and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code. The product described herein has been evaluated for compliance with the 5th Edition (2014) Florida Building Code sections noted herein.

DESCRIPTION: JM Built-Up Roofing Systems

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

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

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

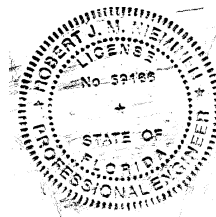
INSPECTION: Upon request, a copy of this entire Evaluation Report shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This Evaluation Report consists of pages 1 through 4, plus a 14-page Appendix.

Prepared by:

Robert J.M. Nieminen, P.E.

Florida Registration No. 59166, Florida DCA ANE1983



The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 04/28/2015. This does not serve as an electronically signed document. Signed, sealed hardcopies have been transmitted to the Product Approval Administrator and to the named client

CERTIFICATION OF INDEPENDENCE:

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

ROOFING SYSTEMS EVALUATION:

1. SCOPE:

Product Category: Roofing
Sub-Category: Built-Up Roofing Systems

Compliance Statement: JM Built-Up Roofing Systems, as produced by Johns Manville Corporation, have demonstrated compliance with the following sections of the Florida Building Code through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

2. STANDARDS:

<u>Section</u>	<u>Property</u>	<u>Standard</u>	<u>Year</u>
1504.3.1	Wind	FM 4474	2004
1504.7	Impact	FM 4470	1992
1507.10.2	Physical Properties	ASTM D2178	2004
1507.10.2	Physical Properties	ASTM D3909	1997
1507.10.2	Physical Properties	ASTM D4601	2004
1523.6.2	Wind	TAS 114	2011

3. REFERENCES:

<u>Entity</u>	<u>Examination</u>	<u>Reference</u>	<u>Date</u>
FM Approvals (TST1867)	FM 4470	3001629	09/10/1998
FM Approvals (TST1867)	FM 4470	3D4A4.AM	09/28/1998
FM Approvals (TST1867)	FM 4470	3000949	06/05/1998
FM Approvals (TST1867)	FM 4470	3001482	08/11/1998
FM Approvals (TST1867)	FM 4470	OZ8A9.AM	09/10/1998
FM Approvals (TST1867)	FM 4470	3007148	04/19/2000
FM Approvals (TST1867)	FM 4470	3006346	08/15/2000
FM Approvals (TST1867)	FM 4470	3009499	04/04/2001
FM Approvals (TST1867)	FM 4470	3011057	08/10/2001
FM Approvals (TST1867)	FM 4470	3012974	06/03/2002
FM Approvals (TST1867)	FM 4470	3014090	09/05/2002
FM Approvals (TST1867)	FM 4470	3011248	11/01/2002
FM Approvals (TST1867)	FM 4470	3015444	07/11/2003
FM Approvals (TST1867)	FM 4470/4474	3026130	04/26/2006
IRT (TST7408)	TAS 114	99001.1.20.99	01/20/1999
IRT (TST7408)	TAS 114	99002.1.20.99	01/20/1999
IRT (TST7408)	TAS 114	99003.1.20.99	01/20/1999
IRT (TST7408)	TAS 114	99006.1.20.99	01/20/1999
IRT (TST7408)	TAS 114	99007.1.20.99	01/20/1999
IRT (TST7408)	TAS 114	99008.1.20.99	01/20/1999
IRT (TST7408)	TAS 114	99016.1.20.99	01/20/1999
IRT (TST7408)	TAS 114	99009.2.10.99	02/10/1999
IRT (TST7408)	TAS 114	99010.2.10.99	02/10/1999
IRT (TST7408)	TAS 114	02-026	07/26/2002
IRT (TST7408)	TAS 114	02-011	02/06/2002
Miami-Dade (CER1592)	Physical Properties	Various NOAs	Current
UL LLC (QUA9625)	Quality Control	Service Confirmation	Exp. 10/22/2016

4. PRODUCT DESCRIPTION:

This Evaluation Report covers Johns Manville Built-Up Roof Systems (BUR) installed in accordance with Johns Manville published installation instructions and the Limitations / Conditions of Use herein. The following Johns Manville products make up the subject systems.

TABLE 1: ROLL-GOODS FOR JOHNS MANVILLE BUILT-UP ROOF SYSTEMS			
Type	Product	Specification	
		Reference	Type
Base Sheets	DynaBase	ASTM D6163	Type I
	GlasBase Plus	ASTM D4601	Type II
	Ventsulation Felt	ASTM D 4897	Type II
Ply Sheets	PermaPly 28	ASTM D4601	Type II
	GlasPly IV	ASTM D 4601	Type IV
	GlasPly Premier	ASTM D 2178	Type VI
Cap Sheets	Glaskap	ASTM D3909	N/A
	Glaskap CR	ASTM D3909	N/A
	Glaskap Plus	ASTM D5147	N/A

5. LIMITATIONS:

- 5.1 This is a building code evaluation. Neither Trinity|ERD nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.
- 5.2 This Evaluation Report is not for use in HVHZ.
- 5.3 Refer to a current Roofing Materials Directory for fire ratings of this product.
- 5.4 For steel deck installations, foam plastic insulation shall be separated from the building interior in accordance with FBC 2603.4 unless the exceptions stated in FBC 2603.4.1 and 2603.6 apply.
- 5.5 The roof system evaluation herein pertains to above-deck roof components. Roof decks shall be in accordance with FBC 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.
- 5.6 For recover installations, the existing roof shall be examined in accordance with FBC 1510.
- 5.7 For mechanically attached insulation or membrane or strip-bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed the Zone 1 design pressure determined in accordance with FBC Chapter 16. Zones 2 and 3 shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are RAS 117 and FM LPDS 1-29. Assemblies marked with an asterisk* carry the limitations set forth in Section 2.2.1.5.1(a) of FM LPDS 1-29 for Zone 2/3 enhancements.
- 5.8 For assemblies where all components are fully adhered, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16. No rational analysis is permitted for these systems.
- 5.9 For mechanically attached insulation or membrane over existing roof decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing and analysis shall be in accordance with TAS 105 or ANSI/SPRI FX-1.
- 5.10 For bonded insulation or membrane over existing substrates in a re-roof (tear off) or recover installation, the existing deck or existing roof surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with ASTM E907, FM LPDS 1-52, ANSI/SPRI IA-1 or TAS 124 shall be conducted on mock-ups of the proposed new roof assembly.
- 5.11 For bonded insulation or membrane over existing substrates in a recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the AHJ, as documented through field uplift testing in accordance with ASTM E907, FM LPDS 1-52 or TAS 124.
- 5.12 Metal edge attachment (except gutters), shall be designed and installed for wind loads in accordance with FBC Chapter 16 and tested for resistance in accordance with ANSI/SPRI ES-1 or RAS 111, except the basic wind speed shall be determined from FBC Figure 1609.

5.13 All products in the roof assembly shall have quality assurance audit in accordance with the FBC and F.A.C. Rule 61G20-3.

6. INSTALLATION:

6.1 Johns Manville Built-Up Roof Systems shall be installed in accordance with Johns Manville Corporation published installation instructions, subject to the Limitations / Conditions of Use herein.

6.2 System attachment requirements for wind load resistance are set forth in Appendix 1. MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads, and reflects the ultimate passing pressure divided by 2 (the 2 to 1 margin of safety per FBC 1504.9 has already been applied). Refer to FBC 1609 for determination of design wind loads.

7. BUILDING PERMIT REQUIREMENTS:

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

8. MANUFACTURING PLANTS:

Contact the named QA entity for manufacturing facilities covered by F.A.C. Rule 61G20-3 QA requirements.

9. QUALITY ASSURANCE ENTITY:

UL LLC – QUA9625; (414) 248-6409; Karen.buchmann@us.ul.com

- THE 14-PAGES THAT FOLLOW FORM PART OF THIS EVALUATION REPORT -

APPENDIX 1: ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE

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

The following notes apply to the systems outlined herein:

1. The roof system evaluation herein pertains to above-deck roof components. Roof decks shall be in accordance with FBC 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.
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:
 - Wood Deck: UltraFast Fasteners or All Purpose Fasteners with UltraFast Metal Plates. Minimum ¾-inch plywood penetration or minimum 1-inch wood plank embedment.
 - Steel Deck: UltraFast Fasteners or All Purpose Fasteners with UltraFast Metal Plates. Minimum ¾-inch steel penetration and engage the top flute of the steel deck.
 - Concrete Deck: All Purpose Fasteners with UltraFast Metal Plates or Structural Concrete Fasteners with UltraFast Metal Plates (flat bottom only). Minimum 1-inch embedment. Fasteners installed with a pilot hole in accordance with the fastener manufacturer's published installation instructions.
3. Unless otherwise noted, insulation may be any one layer or combination of polyisocyanurate, polystyrene, wood fiberboard, perlite, gypsum-based roof board or Invinsa Roof Board that meets the QA requirements of F.A.C. Rule 61G20-3 and is documented as meeting FBC 1505.1 and, for foam plastic, FBC Chapter 26, when installed with the roof cover.
4. 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 25-30 lbs/square
 - JM MBR Bonding Adhesive (MBR-BA): Continuous ¾-inch wide ribbons, 12-inch o.c. or full coverage at 2.0 gal/square
 - JM Two-Part Urethane Insulation Adhesive (UIA-2): Continuous ¾-inch wide ribbons, 12-inch o.c.
 - 3M CR-20: Continuous 2½ to 3½-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.*
5. Unless otherwise noted, all insulations are flat stock or taper board of the minimum thickness noted. Tapered polyisocyanurate at the following thickness limitations may be substituted with the following Maximum Design Pressure (MDP) limitations. In no case shall these values be used to 'increase' the MDP listings in the tables; rather if MDP listing below meets or exceeds that listed for a particular system in the tables, then the thinner board listed below may be used as a drop-in for the equivalent thicker material listed in the table:
 - JM Two-Part Urethane Insulation Adhesive (UIA-2): MDP = -315.0 psf (Min. 0.5-inch thick)
 - 3M CR-20: MDP = -117.5 psf (Min. 1.0-inch thick)
6. Bonded polyisocyanurate insulation boards shall be maximum 4 x 4 ft.
7. For mechanically attached components or partially bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed the Zone 1 design pressure determined in accordance with FBC Chapter 16, and Zones 2 and 3 shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are RAS 117 and FM LPDS 1-29. Assemblies marked with an asterisk* carry the limitations set forth in Section 2.2.1.5.1(a) of FM LPDS 1-29 for Zone 2/3 enhancements.
8. For assemblies where all components are fully adhered, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16, and no rational analysis is permitted.
9. For mechanically attached components over existing decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing and analysis shall be in accordance with TAS 105 or ANSI/SPRI FX-1.
10. For existing substrates in a bonded recover installation, the existing roof surface shall be examined for compatibility and bond performance with the selected adhesive, and the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the AHJ, as documented through field uplift testing in accordance with ASTM E907, FM LPDS 1-52, ANSI/SPRI IA-1 or TAS 124.
11. LWIC shall be cast in accordance with FBC Section 1917 to the satisfaction of the Authority Having Jurisdiction. For systems where specific LWIC is referenced, refer to current LWIC Product Approval for specific deck construction and limitations. For systems where specific LWIC is not referenced, the minimum design mix shall be 300 psi. In all cases, the minimum top-coat thickness is 2-inches. For LWIC over structural concrete, reference is made to FBC Section 1917.4.1, Point 1.
12. Unless otherwise noted, a JM BUR Roof Cover consists of hot asphalt applications of an optional base sheet of Glasbase, Glasbase Plus, PermaPly 28 or DynaBase followed by two or more plies of GlasPly IV or GlasPly Premier and an optional cap sheet of GlasKap, GlasKap Plus or GlasKap CR. Systems without a cap sheet shall be surfaced in accordance with JM requirements, meeting the fire resistance requirements of FBC 1505.1.
13. "MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. Refer to FBC 1609 for determination of design wind loads.

TABLE 1A-1: WOOD DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)

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

System No.	Deck (See Note 1)	Anchor Sheet			Base Insulation		Top Insulation		Roof Cover	MDP (psf)
		Type	Fasteners	Attach	Type	Attach	Type	Attach		
W-1.	Min. 19/32" plywood at max. 24-inch span	GlasBase, GlasBase Plus, PermaPly No. 28 or Ventsulation base sheet	32 ga., 1-5/8" diameter tin caps with 11 ga. annular ring shank nails	12" o.c. at the 4-inch lap and 12" o.c. in two equally spaced, staggered center rows	One or more layers, any combination Min 1" ENRGY 3, JM ISO 3, Fesco Foam or Dura Foam; Min ½" Retro-Fit Board or Dura Board; Min ¾" Fesco Board	HA	Min 1.5" Fesco Foam or Dura Foam; Min ½" Retro-Fit Board or Dura Board; Min ¾" Fesco Board	HA	JM BUR. See Note 12.	-60.0

TABLE 1A-2: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER

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

System No.	Deck (See Note 1)	Anchor Sheet			Base Insulation		Top Insulation		Roof Cover	MDP (psf)
		Type	Fasteners	Attach	Type	Attach	Type	Attach		
W-2.	Min. 19/32" plywood at max. 24-inch span	Two plies GlasBase, GlasBase Plus, PermaPly 28 or Ventsulation base sheet	See Note 2	9" o.c. at the 4-inch lap and 12" o.c. in two equally spaced, staggered center rows	One or more layers, any combination Min 1" ENRGY 3, JM ISO 3; Min 1.5" Fesco Foam or Dura Foam; Min ½" Retro-Fit Board or Dura Board; Min ¾" Fesco Board	HA	Min 1.5" Fesco Foam or Dura Foam; Min ½" Retro-Fit Board or Dura Board; Min ¾" Fesco Board	HA	JM BUR. See Note 12.	-52.5
W-3.	Min. 19/32" plywood at max. 24-inch span	GlasPly Premier base sheet	See Note 2	8" o.c. at the 3-inch lap and 8" o.c. in three equally spaced, staggered center rows	One or more layers, any combination Min 1" ENRGY 3, JM ISO 3, Fesco Foam or Dura Foam; Min ½" Retro-Fit Board or Dura Board; Min ¾" Fesco Board	HA	Min 1.5" Fesco Foam or Dura Foam; Min ½" Retro-Fit Board or Dura Board; Min ¾" Fesco Board	HA	JM BUR. See Note 12.	-52.5

TABLE 1B: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER

SYSTEM TYPE B: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION LAYER, BONDED ROOF COVER

System No.	Deck (See Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover	MDP (psf)
		Type	Fasteners	Attach	Type	Attach		
W-4.	Min. 19/32" plywood at max. 24-inch span	Min 1" ENRGY-3 or JM ISO 3 Min ¾" Fesco Board or DuraBoard	See Note 2	1 per 2ft ²	Min ¾" Fesco Board; Min 1.5" Fesco Foam or Dura Foam; Min ½" Retro-Fit Board or DuraBoard	HA	JM BUR. See Note 12.	-45.0*
W-5.	Min. 19/32" plywood at max. 24-inch span	Min. 1.4" ENRGY-3 or JM ISO 3, Min 1.5" Fesco Foam or Dura Foam	See Note 2	1 per 2.67ft ²	Min ¾" Fesco Board; Min 1.5" Fesco Foam or Dura Foam; Min ½" Retro-Fit Board or DuraBoard	HA	JM BUR. See Note 12.	-45.0*

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

System No.	Deck (See Note 1)	Base Insulation Layer		Top Insulation Layer			Roof Cover			MDP (psf)
		Type	Attach	Type	Fasteners	Attach	Base	Ply	Cap	
W-6.	Min. 19/32" plywood at max. 24-inch span	(Optional) One or more layers, any combination	Loose laid	Min ¾" Fesco Board Min ½" Retro-Fit Board or DuraBoard	See Note 2	1 per 2ft ²	JM BUR. See Note 12.			-45.0*
W-7.	Min. 19/32" plywood at max. 24-inch span	(Optional) One or more layers, any combination	Loose laid	Min 1.5" Fesco Foam or Dura Foam	See Note 2	1 per 2.67ft ²	JM BUR. See Note 12.			-45.0*

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

System No.	Deck (See Note 1)	Insulation Layer(s)		Base Sheet			Roof Cover		MDP (psf)
		Type	Attach	Base	Fasteners	Attach	Ply	Cap	
W-8.	Min. 19/32" plywood at max. 24-inch span	One or more layers, any combination	Prelim Attach	One ply of GlasPly Premier	See Note 2	8" o.c. at the 3-inch lap and 8" o.c. in three equally spaced, staggered center rows	One or more plies of GlasBase, GlasBase Plus, Perma Ply No. 28, GlasPly IV and/or GlasPly Premier (min 2 plies if no cap)	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus	-52.5

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

System No.	Deck (See Note 1)	Base Sheet			Roof Cover		MDP (psf)
		Type	Fasteners	Attach	Ply	Cap	
W-9.	Min. 19/32" plywood at max. 24-inch span	GlasBase, GlasBase Plus, PermaPly 28 or Ventsulation	32 ga., 1-5/8" diameter tin caps with 11 ga. annular ring shank nails	9" o.c. at the 3-inch lap and 18" o.c. in two equally spaced, staggered center rows	One or more plies of GlasBase, GlasBase Plus, Perma Ply No. 28, GlasPly IV and/or GlasPly Premier (min 3 plies if no cap)	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus	-45.0*
W-10.	Min. 19/32" plywood at max. 24-inch span	Two plies GlasBase, GlasBase Plus, PermaPly 28 or Ventsulation	32 ga., 1-5/8" diameter tin caps with 11 ga. annular ring shank nails	9" o.c. at the 3-inch lap and 12" o.c. in two equally spaced, staggered center rows			-52.5
W-11.	Min. 19/32" plywood at max. 24-inch span	GlasPly Premier base sheet	See Note 2	8" o.c. at the 3-inch lap and 8" o.c. in three equally spaced, staggered center rows			-52.5
W-12.	Min. 19/32" plywood at max. 24-inch span	GlasBase, GlasBase Plus, PermaPly 28 or Ventsulation	32 ga., 1-5/8" diameter tin caps with 11 ga. annular ring shank nails	9" o.c. at the 3-inch lap and 12" o.c. in two equally spaced, staggered center rows			-60.0

TABLE 2A: STEEL OR CONCRETE DECKS – NEW CONSTRUCTION, 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	MDP (psf)
		Type	Fasteners	Attach	Type	Attach		
S-1.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi concrete	Min 2" ENRGY 3, JM ISO 3	See Note 2	1 per 5.33ft ²	Min ½" Retro-Fit Board or DuraBoard	HA	JM BUR. See Note 12.	-45.0*
S-2.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi concrete	Min 1.4" ENRGY 3 or JM ISO 3	See Note 2	1 per 2.67ft ²	One or more Layers of Min 1.5" Fesco Foam or DuraFoam, Min ¾" Fesco(Tapered) or Min ½" Retro-Fit	HA	JM BUR. See Note 12.	-45.0*
S-3.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi concrete	Min 2" ENRGY 3 or JM ISO 3, Min 1.5" Fesco Foam	See Note 2	1 per 4ft ²	One or more Layers of Min 1.5" Fesco Foam or DuraFoam, Min ¾" Fesco(Tapered) or Min ½" Retro-Fit	HA	JM BUR. See Note 12.	-45.0*
S-4.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi concrete	Min ¾" Fesco	See Note 2	1 per 2ft ²	One or more Layers of Min 1.5" Fesco Foam or DuraFoam, Min ¾" Fesco(Tapered), or Min ½" Retro-Fit	HA	JM BUR. See Note 12.	-45.0*
S-5.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi concrete	Min 1.5" ENRGY 3 or JM ISO 3, Fesco Foam or Dura Foam	See Note 2	1 per 2ft ²	Min 1.5" Fesco Foam or Dura Foam, Min ½" Retro-Fit Board or DuraBoard or Min ¾" Tapered Fesco or Fesco Board	HA	JM BUR. See Note 12.	-45.0*
S-6.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi concrete	Min 1" Fesco Board or Dura Board	See Note 2	1 per 2ft ²	Min 1.5" Fesco Foam or Dura Foam, Min ½" Retro-Fit Board or DuraBoard or Min ¾" Tapered Fesco or Fesco Board	HA	JM BUR. See Note 12.	-45.0*
S-7.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi concrete	Min 1.5" ENRGY 3, JM ISO 3, Fesco Foam, Dura Foam	See Note 2	1 per 1.78ft ²	Min 1.5" Fesco Foam, Dura Foam, Min ½" Retro-Fit Board or DuraBoard or Min ¾" Fesco Board	HA	JM BUR. See Note 12.	-60.0
S-8.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi concrete	Min 2" ENRGY 3, JM ISO 3, Fesco Foam, Dura Foam	See Note 2	1 per 1.45ft ²	Min ½" Retro-Fit Board or DuraBoard	HA	JM BUR. See Note 12.	-75.0

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

System No.	Deck (See Note 1)	Base Insulation Layer		Top Insulation Layer			Roof Cover	MDP (psf)
		Type	Attach	Type	Fasteners	Attach		
S-9.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) One or more layers, any combination	Loose laid	Min 1.5" Fesco Foam	See Note 2	1 per 4ft ²	JM BUR. See Note 12.	-45.0*
S-10.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi concrete	(Optional) One or more layers, any combination	Loose laid	Min. 1" Fesco Board or min. 1/2" Retro-Fit Board	See Note 2	1 per 2ft ²	JM BUR. See Note 12.	-45.0*
S-11.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi concrete	Min. 1.5" ENRGY 3 or JM ISO 3	Loose laid	Min ¾" Fesco Board or DuraBoard	See Note 2	1 per 1.33ft ²	JM BUR. See Note 12.	-75.0

TABLE 2C: STEEL OR CONCRETE DECKS– NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER

System No.	Deck (See Note 1)	Insulation Layer(s)		Base or Anchor Sheet			Roof Cover		MDP (psf)
		Type	Attach	Base	Fasteners	Attach	Ply	Cap	
S-12.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi concrete	One or more layers, any combination	Prelim Attach	One ply of PermaPly 28, DynaBase, GlasBase Plus, DynaBase or Ventsulation	See Note 2	9" o.c. at the 4-inch lap and 18" o.c. in two equally spaced, staggered center rows	One or more plies of GlasBase, GlasBase Plus, Perma Ply 28, GlasPly IV and/or GlasPly Premier (min 3 plies if no cap)	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus	-45.0*
S-13.	Min. 22 ga. type B, Grade 33 steel or min. 2,500 psi concrete	One or more layers, any combination, loose laid Min 1.5" ENRGY-3 or JM ISO 3	Prelim. Attached	One ply of PermaPly 28, DynaBase, GlasBase Plus, DynaBase or Ventsulation	See Note 2	9" o.c. at the 4-inch lap and 12" o.c. in two equally spaced, staggered center rows			-97.5

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

System No.	Deck (See Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover	MDP (psf)
		Type	Attach	Type	Attach		
C-1.	Min. 2,500 psi concrete	Min ¾" Fesco Board	HA	(Optional) Additional layers of base insulation	HA	JM BUR. See Note 12.	-112.0
C-2.	Min. 2,500 psi concrete	Min 1.5" ENRGY-3 or JM ISO 3	HA or MBR Adhesive	Min ¾" Fesco Board or DuraBoard	HA or MBR Adhesive	JM BUR. See Note 12.	-120.0
C-3.	Min. 2,500 psi concrete, primed	Min 1.5" Dura Foam or Fesco Foam, Min 1.75" ENRGY-3 or JM ISO 3	HA	Min ¾" Fesco Board or DuraBoard	HA	JM BUR. See Note 12.	-126.5
C-4.	Min. 2,500 psi concrete, primed	Min 1.5 " ENRGY-3 or JM ISO 3, Min ¾" Fesco Board, Min ½" Retro-Fit Board or DuraBoard	HA	Min ¾" Fesco Board Min ½" Retro-Fit Board or DuraBoard	HA	JM BUR. See Note 12.	-150.0
C-5.	Min. 2,500 psi concrete, primed	Min 1.5" Dura Foam or Fesco Foam, Min 1.4" ENRGY-3 or JM ISO 3	HA	Min. ½" Retro-Fit or DuraBoard	HA	JM BUR. See Note 12.	-155.0
C-6.	Min. 2,500 psi concrete	Min. ¾-inch FescoBoard (homogeneous)	UIA-2	(Optional) Min. ¾-inch FescoBoard (homogeneous)	UIA-2	JM BUR. See Note 12.	-285.0
C-7.	Min. 2,500 psi concrete	Min. ½-inch Retro-Fit Board or DuraBoard	UIA-2	(Optional) Min. ½-inch Retro-Fit Board or DuraBoard	UIA-2	JM BUR. See Note 12.	-305.0
C-8.	Min. 2,500 psi concrete, primed	Min 1.5 " ENRGY-3 or JM ISO 3, Min ¾" Fesco Board, Min ½" Retro-Fit Board or DuraBoard	HA	Min. 1.5" Fesco Foam or DuraFoam, Min ¾" Fesco Board, Min ½" Retro-Fit Board or DuraBoard	HA	JM BUR. See Note 12.	-305.0
C-9.	Min. 2,500 psi concrete	(Optional) Min. 1.5-inch ENRGY 3	UIA-2 or CR-20	Min. ¾-inch SECUROCK Gypsum-Fiber Roof Board	UIA-2 or CR-20	JM BUR. See Note 12.	-442.5
C-10.	Min. 2,500 psi concrete	(Optional) Min. 1.5-inch ENRGY 3	HA or OlyBond Classic full coverage	Min. ¾-inch SECUROCK Gypsum-Fiber Roof Board	HA or OlyBond Classic full coverage	JM BUR. See Note 12.	-495.0

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

System No.	Deck (See Note 1)	Roof Cover			MDP (psf)
		Base	Ply	Cap	
C-11.	Min. 2,500 psi concrete, primed	One ply of Ventsulation Felt Base Sheet	Two or more plies of GlasPly IV or GlasPly Premier	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus	-220.0
C-12.	Min. 2,500 psi concrete, primed	One or more plies of GlasBase, GlasBase Plus, PermaPly 28, DynaBase, GlasPly IV or GlasPly Premier			-275.0

TABLE 4A: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-2: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (See Notes 1 & 11)	Anchor Sheet			Insulation			Roof Cover	MDP (psf)
		Type	Fasteners	Attach	Base	Top	Attach		
LWC-1.	Cellular or Aggregate Lightweight Concrete (250 psi Min.) over min. 22 ga. steel or concrete deck.	One ply of GlasPly Premier	JM LWC Base Sheet Fasteners	9" o.c. at the 3-inch lap and 12" o.c. in two equally spaced, staggered center rows	One or more layers Min 1" ENRGY-3 or JM ISO 3, Min 1.5" Fesco Foam or Dura Foam, Min ½" Retro-Fit Board or DuraBoard or Min. ¾" Fesco Board	Min ¾" Tapered Fesco Board	HA	JM BUR. See Note 12.	-52.5
LWC-2.	Cellular or Aggregate Lightweight Concrete over min. 22 ga. steel or concrete deck.	One ply of Dynabase, Ventsulation, GlasBase Plus or PermaPly 28 base	JM LWC Base Sheet Fasteners	7" o.c. at the 3-inch lap and 7" o.c. in two equally spaced, staggered center rows	One or more layers Min 1" ENRGY-3 or JM ISO 3, Min 1.5" Fesco Foam or Dura Foam, Min ½" Retro-Fit Board or DuraBoard or Min. ¾" Fesco Board	Min 1.5" Fesco Foam or Dura Foam, Min ½" Retro-Fit Board or DuraBoard or Min. ¾" Fesco Board	HA	JM BUR. See Note 12.	-52.5
LWC-3.	Min. 300 psi, minimum 2¼-inch thick Concrecel LWIC over min. 22 ga. steel or concrete deck.	One ply of GlasPly Premier	JM LWC Base Sheet Fasteners	7" o.c. at the 3-inch lap and 7" o.c. in two equally spaced, staggered center rows	One or more layers Min 1" ENRGY-3 or JM ISO 3, Min 1.5" Fesco Foam or Dura Foam, Min ½" Retro-Fit Board or DuraBoard or Min. ¾" Fesco Board	Min ½" Retro-Fit Board or DuraBoard or Min. ¾" Fesco Board	HA	JM BUR. See Note 12.	-82.5

TABLE 4B: LIGHTWEIGHT CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE E: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER

System No.	Deck		Base Sheet			Roof Cover		MDP (psf)
	Deck (Note 1)	LWC (Note 11)	Type	Fasteners	Attach	Ply	Cap	
LWC-4.	Min. 22 ga, type B, Grade 33 steel or structural concrete	Min. 250 psi, minimum 2-inch thick cellular LWIC	PermaPly 28, DynaBase, Ventsulation or Glasply Premier	JM LWC Base Sheet Fasteners	9" o.c. at the 4-inch lap and 12" o.c. in two, equally spaced, staggered center rows	Two or more plies of GlasBase, GlasBase Plus, Perma Ply 28, GlasPly IV and/or GlasPly Premier (min 3 plies if no cap)	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus	-52.5
LWC-5.	Min. 22 ga, type B, Grade 33 steel or structural concrete	Min. 300 psi, minimum 2-inch thick cellular LWIC	GlasBase Plus, PermaPly 28 or Ventsulation	JM LWC Base Sheet Fasteners	7" o.c. at the 3-inch lap and 7" o.c. in two, equally spaced, staggered center rows	Two or more plies of GlasBase, GlasBase Plus, Perma Ply 28, GlasPly IV and/or GlasPly Premier (min 3 plies if no cap)	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus	-52.5
LWC-6.	Min. 22 ga, type B, Grade 33 steel or structural concrete	Min. 250 psi, minimum 2-inch thick cellular LWIC	PermaPly 28	JM UltraLok 1.8" Fasteners	9" o.c. at the 4-inch lap and 9" o.c. in two, equally spaced, staggered center rows	Two or more plies of GlasBase, GlasBase Plus, Perma Ply 28, GlasPly IV and/or GlasPly Premier (min 3 plies if no cap)	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus	-60.0
LWC-7.	Min. 22 ga, type B, Grade 33 steel or structural concrete	Min. 250 psi, minimum 2-inch thick cellular LWIC	DynaBase	JM Ultra-Lok 1.8" Fasteners	9" o.c. at the 4-inch lap and 9" o.c. in two, equally spaced, staggered center rows	Two or more plies of GlasBase, GlasBase Plus, Perma Ply 28, GlasPly IV and/or GlasPly Premier (min 3 plies if no cap)	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus	-75.0
LWC-8.	Min. 22 ga, type B, Grade 33 steel or structural concrete	Min. 300 psi, minimum 2-inch thick cellular LWIC	DynaBase, Ventsulation or Glasply Premier	See Note 2 (Through to the structural deck)	7" o.c. at the 4-inch lap and 7" o.c. in two, equally spaced, staggered center rows	Two or more plies of GlasBase, GlasBase Plus, Perma Ply 28, GlasPly IV and/or GlasPly Premier (min 3 plies if no cap)	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus	-75.0
LWC-9.	Min. 22 ga, type B, Grade 33 steel or structural concrete	Min. 300 psi, minimum 2-inch thick <u>Celcore</u> LWIC	DynaBase, PermaPly 28, Ventsulation or GlasPly Premier	JM LWC Base Sheet Fasteners	7" o.c. at the 4-inch lap and 7" o.c. in two, equally spaced, staggered center rows	Two or more plies of GlasBase, GlasBase Plus, Perma Ply 28, GlasPly IV and/or GlasPly Premier (min 3 plies if no cap)	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus	-75.0
LWC-10.	Min. 22 ga, type B, Grade 33 steel or structural concrete	Min. 300 psi, minimum 2¼-inch thick <u>Concrecel</u> LWIC	GlasPly Premier, PermaPly 28 or Ventsulation	JM LWC Base Sheet Fasteners	7" o.c. at the 3-inch lap and 7" o.c. in two, equally spaced, staggered center rows	Two or more plies of GlasBase, GlasBase Plus, Perma Ply 28, GlasPly IV and/or GlasPly Premier (min 3 plies if no cap)	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus	-82.5

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

System No.	Deck		Base			Roof Cover		MDP (psf)
	Deck (See Note 1)	LWC (Note 11)	Type	Adhesive / Fasteners	Attach	Ply	Cap	
LWC-11.	Min. 22 ga, type B, Grade 33 steel or structural concrete	Min. 300 psi, minimum 2¼-inch thick <u>Concrecel</u> LWIC	GlasPly Premier	Hot asphalt	50% strip mopped	One or more plies of GlasBase, GlasBase Plus, Perma Ply 28, GlasPly IV and/or GlasPly Premier (min 2 plies if no cap)	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus	-67.5
LWC-12.	Min. 22 ga, type B, Grade 33 steel or structural concrete	Min. 300 psi, minimum 2¼-inch thick <u>Concrecel</u> LWIC	GlasPly Premier	Hot asphalt and JM LWC Base Sheet Fasteners	50% strip mopped plus fasteners 4" o.c. at the 4-inch lap and 4" o.c. in four, equally spaced center rows	One or more plies of GlasBase, GlasBase Plus, Perma Ply 28, GlasPly IV and/or GlasPly Premier (min 2 plies if no cap)	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus	-146.0

TABLE 5A-1: CEMENTITIOUS WOOD FIBER DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-2: MECHANICALLY FASTENED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Anchor Sheet			Insulation			Roof Cover	MDP (psf)
		Type	Fasteners	Attach	Base	Top	Attach		
CWF-1.	Tectum or Fibroplank	GlasBase Plus, PermaPly 28 or Ventsulation	JM Polymer Auger Fasteners and Plates	9" o.c. at the 4-inch lap and 12" o.c. in two, equally spaced, staggered center rows	(Optional) One or more layers Min 1" ENRGY-3 or JM ISO 3	Min ½" Retro-Fit Board or DuraBoard Min ¾" Fesco Board	HA	JM BUR. See Note 12.	-45.0*

TABLE 5A-2: CEMENTITIOUS WOOD FIBER DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE A-2: MECHANICALLY FASTENED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Anchor Sheet			Insulation			Roof Cover	MDP (psf)
		Type	Fasteners	Attach	Base	Top	Attach		
CWF-2.	Tectum or Fibroplank	GlasPly Premier	JM UltraLok Fasteners Min 1" Embedment	9" o.c. at the 3-inch lap and 12" o.c. in two, equally spaced, staggered center rows	(Optional) One or more layers Min 1" ENRGY-3 or JM ISO 3	Min ½" Retro-Fit Board or DuraBoard Min ¾" Fesco Board	HA	JM BUR. See Note 12.	-82.5

TABLE 5B: CEMENTITIOUS WOOD FIBER 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)	Base Insulation Layer			Top Insulation Layer		Roof Cover	MDP (psf)
		Type	Fasteners	Attach	Type	Attach		
CWF-3.	Tectum or Fibroplank	Min 1.3" ENRGY-3 or JM ISO 3	JM Polymer Auger Fasteners and Plates	1 per 3 ft ²	Min ¾" Fesco Board or DuraBoard	HA	JM BUR. See Note 12.	-45.0*
CWF-4.	Tectum or Fibroplank	Min 1.5" Fesco Foam or Dura Foam	JM Polymer Auger Fasteners and Plates	1 per 4 ft ²	(Optional) Min ¾" Fesco Board or DuraBoard	HA	JM BUR. See Note 12.	-45.0*
CWF-5.	Tectum or Fibroplank	Min ¾" Fesco Board or DuraBoard	JM Polymer Auger Fasteners and Plates	1 per 2 ft ²	(Optional) Min ¾" Fesco Board or DuraBoard	HA	JM BUR. See Note 12.	-45.0*

TABLE 5C: CEMENTITIOUS WOOD FIBER DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)

SYSTEM TYPE C: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)	Base Insulation Layer		Top Insulation Layer			Roof Cover	MDP (psf)
		Type	Attach	Type	Fasteners	Attach		
CWF-6.	Tectum or Fibroplank	(Optional) One or more layers, any combination	Loose laid	Min 1.5" Fesco Foam or Dura Foam	JM Polymer Auger Fasteners and Plates	1 per 4ft ²	JM BUR. See Note 12.	-45.0*
CWF-7.	Tectum or Fibroplank	(Optional) One or more layers, any combination	Loose laid	Min ¾" Fesco Board Min ½" Retro-Fit Board or DuraBoard	JM Polymer Auger Fasteners and Plates	1 per 2ft ²	JM BUR. See Note 12.	-45.0*

TABLE 5D-1: CEMENTITIOUS WOOD FIBER DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)

SYSTEM TYPE E: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER

System No.	Deck (See Note 1)	Base Sheet			Roof Cover		MDP (psf)
		Type	Fasteners	Attach	Ply	Cap	
CWF-8.	Tectum or Fibroplank	GlasBase Plus, PermaPly 28 or Vensulation	JM Polymer Auger Fasteners and Plates	9" o.c. at the 4-inch lap and 12" o.c. in two, equally spaced, staggered center rows	Two or more plies of GlasBase, GlasBase Plus, Perma Ply 28, GlasPly IV and/or GlasPly Premier (min 3 plies if no cap)	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus	-45.0*

TABLE 5D-2: CEMENTITIOUS WOOD FIBER DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER

SYSTEM TYPE E: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER

System No.	Deck (See Note 1)	Base Sheet			Roof Cover		MDP (psf)
		Type	Fasteners	Attach	Ply	Cap	
CWF-9.	Tectum or Fibroplank	GlasPly Premier	UltraLok Nail Fasteners Min 1" Embedment	9" o.c. at the 3-inch lap and 12" o.c. in two, equally spaced, staggered center rows	Two or more plies of GlasBase, GlasBase Plus, Perma Ply 28, GlasPly IV and/or GlasPly Premier (min 3 plies if no cap)	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus	-82.5

TABLE 6A-1: GYPSUM DECKS – REROOF (TEAR-OFF)							
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER							
System No.	Deck	Base Insulation Layer		Top Insulation Layer		Roof Cover	MDP (psf)
		Type	Attach	Type	Attach		
G-1.	Existing sound gypsum or gypsum plank	(Optional) Min. 1.5-inch ENRGY-3	UIA-2	Min. ½-inch Retro-Fit Board or DuraBoard or min. ¾-inch Fesco Board	UIA-2	JM BUR. See Note 12.	-112.5
G-2.	Existing sound gypsum or gypsum plank	(Optional) Min. 1.5-inch ENRGY-3	UIA-2	Min. ¾-inch SECUROCK Gypsum-Fiber Roof Board	UIA-2	JM BUR. See Note 12.	-112.5
G-3.	Existing sound gypsum or gypsum plank	Min. 1.5-inch ENRGY-3	CR-20	Min. ¾-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	JM BUR. See Note 12.	-257.5

TABLE 6A-2: GYPSUM DECKS – REROOF (TEAR-OFF)									
SYSTEM TYPE A-2: MECHANICALLY FASTENED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER									
System No.	Deck (See Note 1)	Anchor Sheet			Insulation			Roof Cover	MDP (psf)
		Type	Fasteners	Attach	Base	Top	Attach		
G-4.	Existing sound gypsum or gypsum plank	GlasBase Plus, PermaPly 28 or Ventsulation	JM Polymer Auger Fasteners and Plates	9" o.c. at the 4-inch lap and 12" o.c. in two, equally spaced, staggered center rows	(Optional) One or more layers Min 1" ENRGY-3 or JM ISO 3	Min ½" Retro-Fit Board or DuraBoard Min ¾" Fesco Board	HA	JM BUR. See Note 12.	-45.0*

TABLE 6A-2: GYPSUM DECKS – REROOF (TEAR-OFF) OR RECOVER									
SYSTEM TYPE A-2: MECHANICALLY FASTENED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER									
System No.	Deck (See Note 1)	Anchor Sheet			Insulation			Roof Cover	MDP (psf)
		Type	Fasteners	Attach	Base	Top	Attach		
G-5.	Existing sound gypsum or gypsum plank	GlasPly Premier	JM UltraLok Fasteners Min 1" Embedment	9" o.c. at the 3-inch lap and 12" o.c. in two, equally spaced, staggered center rows	(Optional) One or more layers Min 1" ENRGY-3 or JM ISO 3	Min ½" Retro-Fit Board or DuraBoard Min ¾" Fesco Board	HA	JM BUR. See Note 12.	-75.0

TABLE 6B: GYPSUM DECKS – REROOF (TEAR-OFF)								
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	MDP (psf)
		Type	Fasteners	Attach	Type	Attach		
G-6.	Existing sound gypsum or gypsum plank	Min 1.3" ENRGY-3 or JM ISO 3	JM Polymer Auger Fasteners and Plates	1 per 2.67 ft ²	Min ¾" Fesco Board or DuraBoard or Min ½" Retro-Fit Board	HA	JM BUR. See Note 12.	-45.0*
G-7.	Existing sound gypsum or gypsum plank	Min. ¾" Fesco Board or DuraBoard	JM Polymer Auger Fasteners and Plates	1 per 2 ft ²	Min ¾" Fesco Board or DuraBoard or Min ½" Retro-Fit Board	HA	JM BUR. See Note 12.	-45.0*

TABLE 6C: GYPSUM DECKS – REROOF (TEAR-OFF)								
SYSTEM TYPE C: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER								
System No.	Deck (See Note 1)	Base Insulation Layer		Top Insulation Layer			Roof Cover	MDP (psf)
		Type	Attach	Type	Fasteners	Attach		
G-8.	Existing sound gypsum or gypsum plank	(Optional) One or more layers, any combination	Loose laid	Min 1.5" Fesco Foam or Dura Foam, Min ¾" Fesco Board, Min ½" Retro-Fit Board or DuraBoard	JM Polymer Auger Fasteners and Plates	1 per 2.67ft ²	JM BUR. See Note 12.	-45.0*

TABLE 6D-1: GYPSUM DECKS – REROOF (TEAR-OFF)								
SYSTEM TYPE E: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER								
System No.	Deck (See Note 1)	Base Sheet			Roof Cover		MDP (psf)	
		Type	Fasteners	Attach	Ply	Cap		
G-9.	Existing sound gypsum or gypsum plank	GlasBase Plus, PermaPly 28 or Vensulation	JM Polymer Auger Fasteners and Plates	9" o.c. at the 4-inch lap and 12" o.c. in two, equally spaced, staggered center rows	Two or more plies of GlasBase, GlasBase Plus, Perma Ply 28, GlasPly IV and/or GlasPly Premier (min 3 plies if no cap)	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus	-45.0*	

TABLE 6D-2: GYPSUM DECKS – REROOF (TEAR-OFF) OR RECOVER								
SYSTEM TYPE E: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER								
System No.	Deck (See Note 1)	Base Sheet			Roof Cover		MDP (psf)	
		Type	Fasteners	Attach	Ply	Cap		
G-10.	Existing sound gypsum or gypsum plank	GlasPly Premier	UltraLok Nail Fasteners Min 1" Embedment	9" o.c. at the 3-inch lap and 12" o.c. in two, equally spaced, staggered center rows	Two or more plies of GlasBase, GlasBase Plus, Perma Ply 28, GlasPly IV and/or GlasPly Premier (min 3 plies if no cap)	(Optional) One ply of GlasKap, GlasKap CR or GlasKap Plus	-82.5	

TABLE 7: WIND UPLIFT PERFORMANCE –RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Substrate (See Note 10)	Base Insulation Layer		Top Insulation Layer		Roof Cover			MDP (psf)
		Type	Attach	Type	Attach	Base	Ply	Cap	
R-1.	Existing asphaltic roof	Min 1.5" ENRGY-3 or JM ISO 3	HA or MBR-BA	Min ¾" Fesco Board or DuraBoard	HA or MBR-BA	JM BUR. See Note 12.			-120.0
R-2.	Existing asphaltic roof	Min. ¾-inch FescoBoard (homogeneous), min. ½-inch Retro-Fit Board or DuraBoard	UIA-2	(Optional) Min. ¾-inch FescoBoard (homogeneous), min. ½-inch Retro-Fit Board or DuraBoard	UIA-2	JM BUR. See Note 12.			-120.0
R-3.	Existing asphaltic roof	(Optional) Min. 1.5-inch ENRGY 3	UIA-2	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	UIA-2	JM BUR. See Note 12.			-120.0
R-4.	Existing asphaltic roof	Min. ¾-inch FescoBoard or DuraBoard (homogeneous)	HA	(Optional) Min. ¾-inch FescoBoard or DuraBoard (homogeneous)	HA	JM BUR. See Note 12.			-167.5
R-5.	Existing asphaltic roof	(Optional) Min. 1.5-inch ENRGY 3	CR-20	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	JM BUR. See Note 12.			-262.5
R-6.	Existing asphaltic roof	Min. 1.5-inch ENRGY 3	HA	Min. ½-inch Retro-Fit Board or min. ¾-inch Fesco Board or DuraBoard	HA	JM BUR. See Note 12.			-305.0
R-7.	Existing asphaltic roof	(Optional) Min. 1.5-inch ENRGY 3	HA	Min. 1.5-inch Fesco Foam or DuraFoam	HA	JM BUR. See Note 12.			-305.0
R-8.	Existing asphaltic roof	(Optional) Min. 1.5-inch ENRGY 3	HA	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	HA	JM BUR. See Note 12.			-420.0