



NEMO|etc.

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ENGINEER

EVALUATE

TEST

CONSULT

EVALUATION REPORT

CertainTeed, LLC
20 Moores Road
Malvern, PA 19355
(610) 893-5400

Evaluation Report C33260.06.10-R4
FL477-R9
Date of Issuance: 06/29/2010
Revision 4: 07/06/2020

SCOPE:

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

DESCRIPTION: Flintglas® Built-Up Roof Systems

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

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

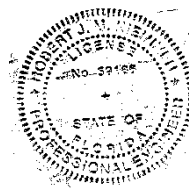
ADVERTISEMENT: The Florida Product Approval Number number (FL#) preceded by the words "NEMO|etc. Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

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

This Evaluation Report consists of pages 1 through 5, plus a 22-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 07/06/2020. This does not serve as an electronically signed document.

CERTIFICATION OF INDEPENDENCE:

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

ROOFING SYSTEMS EVALUATION:
1. SCOPE:

Product Category: Roofing
Sub-Category: Built-Up Roof Systems
Compliance Statement: Flintglas® Built-Up Roof Systems, as produced by CertainTeed, LLC, have demonstrated compliance with the following sections of the 7th Edition (2020) Florida Building Code through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

2. STANDARDS:

<u>Section</u>	<u>Property</u>	<u>Standard</u>	<u>Year</u>
1504.3.1	Wind resistance	FM 4474	2011
1504.7	Impact resistance	FM 4470	2016
1507.10.2	Material standard	ASTM D2178	2015
1507.10.2	Material standard	ASTM D3909	2014
1507.10.2	Material standard	ASTM D4601	2012
1507.10.2	Material standard	ASTM D4897	2009
1507.11.2	Material standard	ASTM D6163	2000 (2015)
1507.11.2	Material standard	ASTM D6164	2011
1507.11.2	Material standard	ASTM D6222	2011

3. REFERENCES:

<u>Entity</u>	<u>Examination</u>	<u>Reference</u>	<u>Date</u>
ERD (TST6049)	FM 4470	3504.07.97-1	07/15/1997
ERD (TST6049)	FM 4470	3504.06.01-1	06/05/2001
ERD (TST6049)	FM 4470	3513.08.02	08/15/2002
ERD (TST6049)	FM 4470	03515.07.03	07/22/2003
ERD (TST6049)	FM 4470/4474	3533.01.06	01/06/2006
ERD (TST6049)	FM 4470/4474	4674.11.01-1	03/21/2006
ERD (TST6049)	FM 4470/4474	3521.07.04-R1	10/26/2007
ERD (TST6049)	FM 4470/4474	02764.09.05-R1	12/10/2007
ERD (TST6049)	FM 4470/4474	02762.03.05-R1	12/10/2007
ERD (TST6049)	FM 4470/4474	C8370.08.08-R1	10/05/2009
ERD (TST6049)	FM 4470/4474	P6860.06.07-R1	09/10/2009
ERD (TST6049)	FM 4470/4474	C30310.12.09	12/17/2009
ERD (TST6049)	FM 4470/4474	C30560.03.10	03/18/2010
ERD (TST6049)	ASTM D1970	C40050.09.12-2	09/28/2012
ERD (TST6049)	ASTM D2178, Type IV	C47250.03.14	03/26/2014
ERD (TST6049)	ASTM D3909	CTR-SC11145.09.16-2A	09/19/2016
ERD (TST6049)	ASTM D4601, Type II	CTR-SC11145.09.16-3A	09/19/2016
ERD (TST6049)	ASTM D4601, Type II	CTR-SC11145.09.16-3C	09/19/2016
ERD (TST6049)	ASTM D4897	CTR-SC11145.09.16-4	09/19/2016
ERD (TST6049)	ASTM D6163, Type I, Grade G	CTR-SC11145.09.16-5A	09/19/2016
ERD (TST6049)	FM 4474	CRT-SC15775.17	09/13/2017
FM Approvals (TST1867)	FM 4470	3Y8A1.AM	09/30/1996
FM Approvals (TST1867)	FM 4470	0D3A3.AM	04/04/1997
FM Approvals (TST1867)	FM 4470	1D7A4.AM	11/09/1998
FM Approvals (TST1867)	FM 4470	2D0A0.AM	12/23/1998
FM Approvals (TST1867)	FM 4470	2D5A9.AM	06/22/1999
FM Approvals (TST1867)	FM 4470	3009502	12/12/2000
FM Approvals (TST1867)	FM 4470	3008869	03/19/2001
FM Approvals (TST1867)	FM 4470	3009610	10/15/2001
FM Approvals (TST1867)	FM 4470	3012321	07/29/2002
FM Approvals (TST1867)	FM 4470	3009814	09/06/2002

Entity	Examination	Reference	Date
FM Approvals (TST1867)	FM 4470	3015444	07/11/2003
FM Approvals (TST1867)	FM 4470	3014692	08/05/2003
FM Approvals (TST1867)	FM 4470	3014751	08/27/2003
FM Approvals (TST1867)	FM 4470	3018579	10/09/2003
FM Approvals (TST1867)	FM 4470	3020703	07/30/2004
FM Approvals (TST1867)	FM 4470/4474	3021759	06/03/2005
FM Approvals (TST1867)	FM 4470/4474	3023458	07/18/2006
FM Approvals (TST1867)	FM 4470/4474	3026128	08/04/2006
FM Approvals (TST1867)	FM 4470/4474	3024311	11/01/2006
FM Approvals (TST1867)	FM 4470/4474	3026964	07/25/2007
FM Approvals (TST1867)	FM 4470/4474	3032172	06/12/2009
FM Approvals (TST1867)	FM 4470/4474	3036182	07/31/2009
NEMO (TST6049)	FM 4474	4a-CTR-20-LSWUS-01.B	06/26/2020
PRI (TST5878)	ASTM D6163, Type I, Grade S	CTC-066-02-01	08/08/2011
PRI (TST5878)	ASTM D6222, Type I, Grade G	CTC-071-02-01	8/8/2011
PRI (TST5878)	ASTM D2178, Type VI	CTC-123-02-01	03/12/2012
PRI (TST5878)	ASTM D4601, Type II	CTC-124-02-01	03/12/2012
PRI (TST5878)	ASTM D4601, Type II	CTC-126-02-01	03/12/2012
PRI (TST5878)	ASTM D6163, Type I, Grade S	CTC-128-02-01	06/08/2012
PRI (TST5878)	ASTM D6164, Type I, Grade G	CTC-131-02-01	06/08/2012
PRI (TST5878)	ASTM D6163	CTC-319-02-01	08/22/2017
UL (QUA1743)	Quality Assurance	Service Confirmation, R11656	11/13/2019

4. PRODUCT DESCRIPTION:

This Evaluation Report covers **Flintglas® Built-Up Roof Systems** installed in accordance with **CertainTeed, LLC** published installation instructions and the Limitations / Conditions of Use herein. The following CertainTeed products make up the subject systems.

TABLE 1: ROLL-GOODS FOR FLINTGLAS® BUILT-UP ROOF SYSTEMS				
Type	Product	Specification		
		Reference	Type	Type
Vapor Barriers	Flintlastic SA PlyBase	ASTM D4601	II	N/A
	Flintlastic Base 20 T	ASTM D6163	I	S
	Flintlastic FR Cap 30 T	ASTM D6163	I	G
	Flintlastic SA Cap	ASTM D6164	I	G
	Flintlastic GTA	ASTM D6222	I	G
Base Sheets	Yosemite® Venting Base	ASTM D4897	II	II
	Glasbase™ Base Sheet	ASTM D4601	II	II
	All Weather/Empire™ Base	ASTM D4601	II	II
	Flexiglas™ Base Sheet	ASTM D4601	II	II
	Flintlastic™ Base 20	ASTM D4601	II	II
	Black Diamond® Base Sheet	ASTM D1970	N/A	N/A
Ply Sheets	Flintlastic® Ultra Glass SA	ASTM D6163	I	I
	Flintglas® Ply Sheet Type IV	ASTM D2178	IV	IV
	Flintglas® Premium Ply Sheet Type VI	ASTM D2178	VI	VI
Cap Sheets	Flintglas® Mineral Surface Cap	ASTM D3909	N/A	N/A
	Flintglas® Mineral Surface Cap CoolStar™	ASTM D3909	N/A	N/A

5. LIMITATIONS:

- 5.1 This is a Building Code Evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.
- 5.2 This Evaluation Report is not for use in FBC High Velocity Hurricane Zone jurisdictions (i.e., Broward and Miami-Dade Counties).
- 5.3 This Evaluation Report pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction.
- 5.4 This Evaluation Report does not include evaluation of fire classification. Refer to **FBC 1505** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.
- 5.5 This Evaluation Report does not include evaluation of roof edge termination. Refer to **FBC 1504.5** for requirements and limitations regarding edge securement for low-slope roofs.
- 5.6 Refer to **FBC 1511** for requirements and limitations regarding recover installations.
- 5.6.1 For mechanically attached components over existing roof decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing shall be in accordance with **ANSI/SPRI FX-1** or **Testing Application Standard TAS 105**.
- 5.6.2 For bonded insulation or membrane over existing substrates in a re-roof (tear off) or recover installation, the existing deck or existing roof surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with **ANSI/SPRI IA-1, ASTM E907, FM Loss Prevention Data Sheet 1-52** or **Testing Application Standard TAS 124** shall be conducted on mock-ups of the proposed new roof assembly.
- 5.6.3 For bonded insulation or membrane over existing substrates in a recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the Authority Having Jurisdiction, as documented through field uplift testing in accordance with **ASTM E907, FM Loss Prevention Data Sheet 1-52** or **Testing Application Standard TAS 124**.
- 5.7 Refer to Appendix 1 for system attachment requirements for wind load resistance.
- 5.7.1 “MDP” = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads, and reflects the ultimate passing pressure divided by 2 (the 2 to 1 margin of safety per **FBC 1504.9** has already been applied). Refer to **FBC 1609** for determination of design wind loads.
- 5.7.2 For mechanically attached components or partially-bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 PRIME design pressure determined in accordance with **FBC Chapter 16**. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are **ANSI/SPRI WD1, FM Loss Prevention Data Sheet 1-29, Roofing Application Standard RAS 117** and **Roofing Application Standard RAS 137**. Assemblies marked with an asterisk* carry the limitations set forth in **Section 2.2.10.1 of FM Loss Prevention Data Sheet 1-29 (February 2020)** for Zone 2/3 enhancements.
- 5.7.3 For assemblies with all components fully bonded in place, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with **FBC Chapter 16**. No rational analysis is permitted for these systems.
- 5.8 All components in the roof assembly shall have quality assurance audit in accordance with **F.A.C. Rule 61G20-3**. Refer to the Product Approval of the component manufacturer for components listed in Appendix 1 that are produced by a Product Manufacturer other than the report holder on Page 1 of this Evaluation Report.

6. INSTALLATION:

Flintglas® Built-Up Roof Systems shall be installed in accordance with **CertainTeed, LLC** published installation instructions, subject to the Limitations / Conditions of Use herein.

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. Refer to Section 4 herein for products and production locations having met codified material standards.

9. QUALITY ASSURANCE ENTITY:

Underwriters Laboratories – QUA1743; (414) 248-6409; Karen.buchmann@us.ul.com

- THE 22-PAGES THAT FOLLOW FORM PART OF THIS EVALUATION REPORT -

APPENDIX 1: ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE

TABLE	DECK	APPLICATION	TYPE	DESCRIPTION	PAGE
1A	Wood	New or Reroof (Tear-Off)	A-2	Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	4
1B	Wood	New, Reroof (Tear-Off) or Recover	B	Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	5
1C	Wood	New, Reroof (Tear-Off) or Recover	C	Mech. Attached Insulation, Bonded Roof Cover	5
1D	Wood	New, Reroof (Tear-Off) or Recover	D	Prelim. Attached Insulation, Mech. Attached Base Sheet, Bonded Roof Cover	5-6
1E-1	Wood	New, Reroof (Tear-Off)	E	Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	7
1E-2	Wood	New, Reroof (Tear-Off) or Recover	E	Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	8
2A	Steel or structural concrete	New, Reroof (Tear-Off) or Recover	B	Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	9
2B	Steel or structural concrete	New, Reroof (Tear-Off) or Recover	C	Mech. Attached Insulation, Bonded Roof Cover	10
2C	Steel or structural concrete	New, Reroof (Tear-Off) or Recover	D	Prelim. Attached Insulation, Mech. Attached Base Sheet, Bonded Roof Cover	11
3A	Structural concrete	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	12-13
3B	Structural concrete	New or Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	13
4A	LWIC	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	14
4B	LWIC	New, Reroof (Tear-Off)	E	Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	15-16
5A	CWF	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	17
5B	CWF	New or Reroof (Tear-Off)	A-2	Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	18
5C	CWF	New, Reroof (Tear-Off) or Recover	C	Mech. Attached Insulation, Bonded Roof Cover	19
5D	CWF	New, Reroof (Tear-Off)	E	Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	19
6A	Gypsum	Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	20
6B	Gypsum	Reroof (Tear-Off)	A-2	Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	20-21
6C	Gypsum	Reroof (Tear-Off)	C	Mech. Attached Insulation, Bonded Roof Cover	21
6D	Gypsum	Reroof (Tear-Off)	E	Non-Insulated, Mech. Attached Base Sheet, Bonded Roof Cover	21
7A	Various	Recover	A-1	Bonded Insulation, Bonded Roof Cover	22

The following notes apply to the systems outlined herein:

- 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 Authority Having Jurisdiction.
- 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: OMG #14 Roofgrip with Flat Bottom Plate (Accutrac), OMG HD with OMG 3 in. Galvalume Steel Plate, Dekfast #14 with Hex Plate or 3” Round Insulation Plate, Tru-Fast HD with MP-3 Plates or FlintFast #14 Fastener with FlintFast 3” Insulation Plates. Minimum ¾-inch plywood penetration or minimum 1-inch wood plank embedment.
 - Steel Deck: OMG #12 or #14 Roofgrip with Recessed or Flat Bottom Plate (Accutrac), OMG #12 Standard or HD with OMG 3 in. Galvalume Steel Plate, Dekfast #12 or #14 with Hex Plate or 3” Round Insulation Plate, Tru-Fast DP or HD with MP-3 or FlintFast #12 or #14 Fastener with FlintFast 3” Insulation Plates. Minimum ¾-inch steel penetration and engage the top flute of the steel deck.
 - Structural Concrete: OMG #14 Roofgrip with Recessed or Flat Bottom Plate (Accutrac), OMG HD or CD-10 with OMG 3 in. Galvalume Steel Plate, Dekfast #14 or DekSpike with Hex Plate or 3” Round Insulation Plate, Tru-Fast HD or CF with MP-3 or FlintFast #14 Fastener with FlintFast 3” Insulation Plates. Minimum 1-inch embedment. Fasteners installed with a pilot hole in accordance with the fastener manufacturer’s published installation instructions.
- Unless otherwise noted, insulation may be any one layer or combination of FBC Approved (Local or Statewide) board(s) that meet FBC 1505 and, for foam plastic, FBC Chapter 26, when installed with the roof cover.

4. Minimum 200 psi, minimum 2-inch thick FBC Approved lightweight insulating concrete may be substituted for rigid insulation board for System Type D, whereby the fasteners are installed through the lightweight insulating concrete to engage the structural deck. The structural deck shall be of equal or greater type, thickness and strength to the steel and structural concrete deck listings. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction.
5. Preliminary insulation attachment for System Type D: Unless otherwise noted, refer to Section 2.2.10.1.3 of FM Loss Prevention Data Sheet 1-29 (February 2020).
6. Unless otherwise noted, insulation adhesive application rates are as follows. Ribbon or bead width is at the time of application; the ribbons/beads shall expand as noted in the manufacturer's published instructions.
 - Hot asphalt (HA): Full coverage at 25-30 lbs/square
 - Ashland, Inc. "Pliodeck Insulation Adhesive" (A-PD): Continuous ¾ inch wide ribbons, 12-inch o.c. *Ribbons of subsequent layers shall be perpendicular to those in the layer below.*
 - Dupont "INSTA-STIK Quik Set Commercial Roofing Adhesive" (D-IS): Continuous ¾ to 1 inch wide ribbons, 12-inch o.c.
 - HB Fuller "Millennium One Step Foamable Adhesive" (M-OSFA): Continuous ¼ to ½-inch wide ribbons, 12-inch o.c.
 - HB Fuller "Millennium PG-1 Pump Grade Adhesive" (M-PG1): Continuous ½ to ¾-inch wide ribbons, 12-inch o.c.
 - ICP Adhesives and Sealants "Polyset CR-20": Continuous 2.5 to 3.5-inch wide ribbons, 12-inch o.c.
 - OMG "OlyBond 500 Adhesive Fastener" or "OlyBond 500 Green" (OB500): Continuous ¾-inch wide ribbons, 12-inch o.c. (PaceCart, SpotShot or Canister)
 - *Note: When multiple layers(s) of insulation and/or coverboard are installed in ribbon-applied adhesive, boards shall be staggered from layer-to-layer.*
 - *Note: The maximum edge distance from the adhesive ribbon to the edge of the insulation board shall be not less than one-half the specified ribbons spacing.*
7. Unless otherwise noted, all insulations are flat stock or taper board of the minimum thickness noted. Tapered polyisocyanurate at the following thickness limitations may be substituted with the following Maximum Design Pressure (MDP) limitations. In no case shall these values be used to 'increase' the MDP listings in the tables; rather if MDP listing below meets or exceeds that listed for a particular system in the tables, then the thinner board listed below may be used as a drop-in for the equivalent thicker material listed in the table:

➤ Ashland, Inc. "Pliodeck Insulation Adhesive" (A-PD) @ 12-inch o.c.	MDP -105.0 psf	(Min. 1.0-inch thick)
➤ Ashland, Inc. "Pliodeck Insulation Adhesive" (A-PD) @ 6-inch o.c.	MDP -277.5 psf	(Min. 1.0-inch thick)
➤ Dupont "INSTA-STIK Quik Set Commercial Roofing Adhesive" (D-IS):	MDP -120.0 psf	(Min. 1.0-inch thick)
➤ HB Fuller "Millennium One Step Foamable Adhesive" (M-OSFA):	MDP -157.5 psf	(Min. 1.0-inch thick)
➤ HB Fuller "Millennium PG-1 Pump Grade Adhesive" (M-PG1):	MDP -157.5 psf	(Min. 1.0-inch thick)
➤ ICP Adhesives and Sealants "Polyset CR-20":	MDP -117.5 psf	(Min. 1.0-inch thick)
➤ OMG "OlyBond 500 Adhesive Fastener" (OB500):	MDP -45.0 psf	(Min. 0.5-inch thick Multi-Max FA-3)
➤ OMG "OlyBond 500 Adhesive Fastener" (OB500):	MDP -187.5 psf	(Min. 0.5-inch thick ISO 95+ GL)
➤ OMG "OlyBond 500 Adhesive Fastener" (OB500):	MDP -315.0 psf	(Min. 0.5-inch thick ENRGY 3)
➤ OMG "OlyBond 500 Adhesive Fastener" (OB500):	MDP -487.5 psf	(Min. 0.5-inch thick ACFoam II)
8. For adhered roof insulation and board-size: Unless otherwise noted, refer to Section 2.2.10.6.2 of FM Loss Prevention Data Sheet 1-29 (February 2020).
9. For mechanically attached components or partially-bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 PRIME design pressure determined in accordance with FBC Chapter 16. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are ANSI/SPRI WD1, FM Loss Prevention Data Sheet 1-29, Roofing Application Standard RAS 117 and Roofing Application Standard RAS 137. Assemblies marked with an asterisk* carry the limitations set forth in Section 2.2.10.1 of FM Loss Prevention Data Sheet 1-29 (February 2020) for Zone 2/3 enhancements.
10. For assemblies with all components fully bonded, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16. No rational analysis is permitted for these systems.
11. For mechanically attached components over existing decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing and analysis shall be in accordance with ANSI/SPRI FX-1 or Testing Application Standard TAS 105.
12. For bonded insulation or membrane over existing substrates in a re-roof (tear off) or recover installation, the existing deck or existing roof surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance shall be conducted on mock-ups of the proposed new roof assembly. For bonded insulation or membrane over existing substrates in a recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the Authority Having Jurisdiction, as documented through field uplift testing. Field uplift testing shall be in accordance with ASTM E907, FM Loss Prevention Data Sheet 1-52 or Testing Application Standard TAS 124.
13. For Structural Concrete Deck or Recover Applications using System Type D, the insulation is optional.

14. Lightweight insulating concrete (LWIC) shall be cast in accordance with FBC Section 1917 to the satisfaction of the Authority Having Jurisdiction. For systems where specific LWIC is referenced, refer to current LWIC Product Approval for specific deck construction and limitations. Unless otherwise noted, for systems where specific LWIC is not referenced, the minimum design mix shall be 300 psi. In all cases, the minimum top-coat thickness is 2-inches. For LWIC over structural concrete, reference is made to FBC Section 1917.4.1, Point 1. For “pre-existent” LWIC references, listings were established through testing over lightweight concrete cast using only foaming agent (ASTM C896), water and Portland cement (ASTM C150), with no proprietary additives, in accordance with procedures adopted by Miami-Dade BCCO (FBC CER1592). Use of these listings in new construction or re-roof (tear-off) applications is at the discretion of the Designer or Record and Authority Having Jurisdiction.
15. Unless otherwise noted, a Flintglas® Built-Up Roof Cover consists of one of the following. Systems shall be surfaced in accordance with CertainTeed requirements to meet the fire resistance requirements of FBC 1505.

BUILT-UP ROOF COVERING OPTIONS	
SYSTEM TYPE	DESCRIPTION
1	Three or four plies Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI applied in hot asphalt at 25 lb/square with flood coat & gravel or approved roof coating.
2	One ply Glasbase, All Weather/Empire Base, Flexiglas Base or Flintlastic Base 20 followed by two or three plies Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI applied in hot asphalt at 25 lb/square with flood coat & gravel or approved roof coating.
3	Two or three plies Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI, followed by Flintglas Mineral Surface Cap or Flintglas Mineral Surface Cap CoolStar applied in hot asphalt at 25 lb/square.
4	One ply Glasbase, All Weather/Empire Base, Flexiglas Base or Flintlastic Base 20 followed by two or three plies Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI, followed by Flintglas Mineral Surface Cap or Flintglas Mineral Surface Cap CoolStar applied in hot asphalt at 25 lb/square.
5	Yosemite Venting Base applied in hot asphalt in 24-inch diameter spots in grid with spots spaced 30-inch o.c. followed by two or three plies Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI applied in hot asphalt at 25 lb/square with flood coat & gravel or approved roof coating.
6	Yosemite Venting Base applied in hot asphalt in 24-inch diameter spots in grid with spots spaced 30-inch o.c. followed by one or two plies Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI, followed by Flintglas Mineral Surface Cap or Flintglas Mineral Surface Cap CoolStar applied in hot asphalt at 25 lb/square.
7	Black Diamond Base Sheet or Flintlastic UltraGlass SA self-adhered, followed by two or three plies of Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI applied in hot asphalt at 25 lb/square with flood coat & gravel or approved roof coating.
8	Black Diamond Base Sheet or Flintlastic UltraGlass SA self-adhered, followed by one or two plies Flintglas Ply Sheet Type IV or Flintglas Premium Ply Sheet Type VI, followed by Flintglas Mineral Surface Cap or Flintglas Mineral Surface Cap CoolStar applied in hot asphalt at 25 lb/square.

16. Vapor barrier options for use over **structural concrete deck** followed by adhered insulation carry the following MDP limitations. The **lesser** of the MDP listings below vs. those in **Table 3A** applies:

VAPOR BARRIER OPTIONS; STRUCTURAL CONCRETE DECK; ADHERED INSULATION PER TABLE 3A; (The lesser of the MDP listings below vs. those in Table 3A applies)					
OPTION #	PRIMER	VAPOR BARRIER		INSULATION ADHESIVE	MDP (PSF)
		TYPE	ATTACH		
VB-1.	FlintPrime	Flintlastic SA PlyBase	Self-adhering	OB500, 12-inch o.c.	-82.5
VB-2.	FlintPrime or FlintPrime SA	Black Diamond Base Sheet	Self-adhering	M-OSFA or M-PG1, 12-inch o.c.	-82.5
VB-3.	FlintPrime or FlintPrime SA	Flintlastic Ultra Glass SA or Flintlastic SA Cap	Self-adhering	M-OSFA or M-PG1, 12-inch o.c.	-97.5
VB-4.	FlintPrime or FlintPrime SA	Black Diamond Base Sheet, Flintlastic Ultra Glass SA or Flintlastic SA Cap	Self-adhering	M-OSFA or M-PG1, 6-inch o.c.	-315.0
VB-5.	FlintPrime	Flintlastic GTA	Torch-applied	M-OSFA or M-PG1, 12-inch o.c.	-420.0
VB-6.	FlintPrime	Flintlastic Base 20 T or Flintlastic FR Cap 30 T	Torch-applied	M-OSFA or M-PG1, 12-inch o.c.	-495.0

17. “MDP” = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. Refer to FBC 1609 for determination of design wind loads.

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

System No.	Deck (Note 1)	Anchor Sheet			Base Insulation		Top Insulation		Roof Cover (Note 15)	MDP (psf)
		Type	Fasteners	Attach	Type	Attach (Notes 6, 7 & 8)	Type	Attach (Notes 6, 7 & 8)		
CONVENTIONAL SYSTEMS:										
W-1	Min. 19/32-inch plywood at max. 24-inch spans	Glasbase, All Weather Empire, Flexiglas Base, Flintlastic Base 20 or Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	9-inch o.c. in 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows	Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY-3, H-Shield or Multi-Max FA3	HA	Min. ¼-inch DensDeck primed with ASTM D41 primer	HA	System 1, 2, 3 or 4	-45.0*
W-2	Min. 19/32-inch plywood at max. 24-inch spans	Glasbase, All Weather Empire, Flexiglas Base or Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. in 3-inch lap and 8-inch o.c. in three, equally spaced, staggered center rows	Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY-3, H-Shield or Multi-Max FA3	HA full coverage or OB500, M-OSFA, A-PD, D-IS or CR-20, 4-inch o.c.	Min. ¼-inch DensDeck primed with ASTM D41 primer	HA full coverage or OB500, M-OSFA, A-PD, D-IS or CR-20, 6-inch o.c.	System 3 or 4	-52.5
W-3	Min. 19/32-inch plywood at max. 24-inch spans	Glasbase, All Weather Empire, Flexiglas Base or Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. in 3-inch lap and 8-inch o.c. in three, equally spaced, staggered center rows	Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY-3, H-Shield or Multi-Max FA3	HA full coverage or OB500, M-OSFA, A-PD, D-IS or CR-20, 4-inch o.c.	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	HA full coverage or OB500, M-OSFA, A-PD, D-IS or CR-20, 6-inch o.c.	System 3 or 4	-60.0
HYBRID SYSTEMS:										
W-4	Min. 19/32-inch plywood at max. 24-inch spans	Glasbase, All Weather Empire, Flexiglas Base, Flintlastic Base 20 or Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	9-inch o.c. in 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows	Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY-3, H-Shield or Multi-Max FA3	HA	None	N/A	System 8	-45.0*
W-5	Min. 19/32-inch plywood at max. 24-inch spans	Glasbase or Flintglas Premium Ply Sheet Type VI or Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. in 3-inch lap and 8-inch o.c. in three, equally spaced, staggered center rows	Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY-3, H-Shield or Multi-Max FA3	HA	None	N/A	System 8	-60.0

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

System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
		Type	Fasteners	Attach	Type	Attach (Notes 6, 7 & 8)		
W-6	Min. 23/32-inch thick exterior grade plywood	Min. 1.5-inch AC Foam II, FlintBoard ISO, ENRGY 3, H-Shield	Note 2	1 per 2.0 ft ²	Min. ½-inch Structodek High Density Fiberboard Roof Insulation, min. ¾-inch FescoBoard (homogeneous), min. ¼-inch SECUROCK Gypsum-Fiber Roof Board, DensDeck or DensDeck Prime	HA	System 1, 2, 3 or 4	-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 (Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners	Attach		
W-7	Min. 23/32-inch thick exterior grade plywood	(Optional) One or more layers, any combination, loose laid	Min. ½-inch Structodek High Density Fiberboard Roof Insulation, min. ¾-inch FescoBoard (homogeneous), min. ¼-inch SECUROCK Gypsum-Fiber Roof Board, DensDeck or DensDeck Prime	Note 2	1 per 2.0 ft ²	System 1, 2, 3 or 4	-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 (Note 1)	Insulation Layer(s)		Base or Anchor Sheet			Roof Cover (Note 15)	MDP (psf)
		Type	Attach	Base	Fasteners	Attach		
CONVENTIONAL SYSTEMS:								
W-8	Min. 23/32-inch thick exterior grade plywood	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Glasbase; All Weather/Empire Base; Flexiglas Base; Flintlastic Base 20 or Poly SMS Base	Note 2	12-inch o.c. at 4-inch lap and 36-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-30.0*
W-9	Min. 23/32-inch thick exterior grade plywood	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Glasbase; All Weather/Empire Base; Flexiglas Base; Flintlastic Base 20 or Poly SMS Base	Note 2	12-inch o.c. at 4-inch lap and 24-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-45.0*
W-10	Min. 23/32-inch thick exterior grade plywood	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Yosemite Venting Base	Note 2	12-inch o.c. at 4-inch lap and 18-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-45.0*
W-11	Min. 23/32-inch thick exterior grade plywood	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Poly SMS Base	Note 2	12-inch o.c. at 4-inch lap and 36-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-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 (Note 1)	Insulation Layer(s)		Base or Anchor Sheet			Roof Cover (Note 15)	MDP (psf)
		Type	Attach	Base	Fasteners	Attach		
W-12	Min. 15/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Glasbase; Flexiglas; Flintlastic Base 20 or Poly SMS Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast MP3 with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in three, equally spaced, staggered center rows. Stress plates shall be primed with ASTM D41 primer or FlintPrime SA.	System 2, 3 or 4	-97.5
W-13	Min. 19/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Glasbase; Flexiglas; Flintlastic Base 20 or Poly SMS Base	Note 2	7-inch o.c. at 3-inch lap and 7-inch o.c. in three, equally spaced, staggered center rows	System 3 or 4	-105.0
W-14	Min. 15/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Glasbase; Flexiglas; Flintlastic Base 20 or Poly SMS Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast MP3 with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in four, equally spaced, staggered center rows. Stress plates shall be primed with ASTM D41 primer or FlintPrime SA.	System 2, 3 or 4	-127.5
HYBRID SYSTEMS:								
W-15	Min. 15/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Glasbase; Flexiglas; Flintlastic Base 20 or Poly SMS Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast MP3 with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in three, equally spaced, staggered center rows. Stress plates shall be primed with ASTM D41 primer or FlintPrime SA.	System 7 or 8	-97.5
W-16	Min. 19/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Glasbase; Flexiglas; Flintlastic Base 20 or Poly SMS Base	Note 2	7-inch o.c. at 3-inch lap and 7-inch o.c. in three, equally spaced, staggered center rows	System 8	-105.0
W-17	Min. 15/32-inch plywood at max 24-inch spans	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast MP3 with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in four, equally spaced, staggered center rows. Stress plates shall be primed with ASTM D41 primer or FlintPrime SA.	System 7 or 8	-127.5

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

System No.	Deck (Note 1)	Base Sheet			Roof Cover (Note 15)	MDP (psf)
		Base	Fasteners	Attach		
CONVENTIONAL SYSTEMS:						
W-18	Min. 19/32-inch thick exterior grade plywood	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base or Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	9-inch o.c. at 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-45.0*
W-19	Min. 15/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base or Poly SMS Base	Min. 1-inch long, 12 ga. Simplex Metal Cap Nails	6-inch o.c. at 3-inch lap and 6-inch o.c. in four, equally spaced, staggered center rows	System 1, 2, 3 or 4	-52.5
W-20	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20 or Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. at 4-inch lap and 8-inch o.c. in three, equally spaced, staggered center rows	System 3 or 4	-52.5
W-21	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. at 4-inch lap and 8-inch o.c. in three, equally spaced, staggered center rows	System 3 or 4	-60.0
W-22	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	6-inch o.c. at 4-inch lap and 6-inch o.c. in four, equally spaced, staggered center rows	System 3 or 4	-82.5
W-23	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	4-inch o.c. at 3-inch lap and 4-inch o.c. in four, equally spaced, staggered center rows	System 3 or 4	-105.0
HYBRID SYSTEMS:						
W-24	Min. 19/32-inch thick exterior grade plywood	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	9-inch o.c. at 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows	System 8	-45.0*
W-25	Min. 15/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; All Weather / Empire Base; Poly SMS Base	Min. 1-inch long, 12 ga. Simplex Metal Cap Nails	6-inch o.c. at 3-inch lap and 6-inch o.c. in four, equally spaced, staggered center rows	System 7 or 8	-52.5
W-26	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. at 4-inch lap and 8-inch o.c. in three, equally spaced, staggered center rows	System 8	-52.5
W-27	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	8-inch o.c. at 4-inch lap and 8-inch o.c. in three, equally spaced, staggered center rows	System 8	-60.0
W-28	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	6-inch o.c. at 4-inch lap and 6-inch o.c. in four, equally spaced, staggered center rows	System 8	-82.5
W-29	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base	32 ga., 1-5/8-inch dia. tin caps with 11 ga. annular ring shank nails	4-inch o.c. at 3-inch lap and 4-inch o.c. in four, equally spaced, staggered center rows	System 8	-105.0

**TABLE 1E-2: WOOD DECKS – NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER
SYSTEM TYPE E: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Sheet			Roof Cover (Note 15)	MDP (psf)
		Base	Fasteners	Attach		
CONVENTIONAL SYSTEMS:						
W-30	Min. 23/32-inch thick exterior grade plywood	Glasbase; All Weather/Empire Base; Flexiglas Base; Flintlastic Base 20 or Poly SMS Base	Note 2	12-inch o.c. at 4-inch lap and 36-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-30.0*
W-31	Min. 23/32-inch thick exterior grade plywood	Glasbase; All Weather/Empire Base; Flexiglas Base; Flintlastic Base 20 or Poly SMS Base	Note 2	12-inch o.c. at 4-inch lap and 24-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-45.0*
W-32	Min. 23/32-inch thick exterior grade plywood	Yosemite Venting Base	Note 2	12-inch o.c. at 4-inch lap and 18-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-45.0*
W-33	Min. 23/32-inch thick exterior grade plywood	Poly SMS Base	Note 2	12-inch o.c. at 4-inch lap and 36-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-45.0*
W-34	Min. 15/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast MP3 with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in three, equally spaced, staggered center rows	System 2, 3 or 4	-97.5
W-35	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base	Note 2	7-inch o.c. at 3-inch lap and 7-inch o.c. in three, equally spaced, staggered center rows	System 3 or 4	-105.0
W-36	Min. 15/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast MP3 with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in four, equally spaced, staggered center rows	System 2, 3 or 4	-127.5
HYBRID SYSTEMS:						
W-37	Min. 15/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast MP3 with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in three, equally spaced, staggered center rows. Stress plates shall be primed with ASTM D41 primer or FlintPrime SA.	System 7 or 8	-97.5
W-38	Min. 19/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base	Note 2	7-inch o.c. at 3-inch lap and 7-inch o.c. in three, equally spaced, staggered center rows	System 8	-105.0
W-39	Min. 15/32-inch plywood at max 24-inch spans	Glasbase; Flexiglas; Flintlastic Base 20; Poly SMS Base	Flintfast 3 in. Insulation Plates with FlintFast #12 or #14; Trufast MP3 with DP or HD; OMG 3 in. Round Metal Plates with OMG #14 HD	6-inch o.c. at 4-inch lap and 6-inch o.c. in four, equally spaced, staggered center rows. Stress plates shall be primed with ASTM D41 primer or FlintPrime SA.	System 7 or 8	-127.5

**TABLE 2A: STEEL OR STRUCTURAL 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 (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
		Type	Fasteners	Attach	Type	Attach (Notes 6, 7 & 8)		
S-1	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	Note 2	1 per 4.0 ft ²	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	HA, D-IS, M-OSFA, OB500 or CR-20	System 1, 2, 3 or 4	-37.5*
S-2	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	Note 2	1 per 2.0 ft ²	Min. ½-inch Structodek High Density Fiberboard Roof Insulation, min. ¾-inch FescoBoard (homogeneous).	HA	System 1, 2, 3 or 4	-45.0*
S-3	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	Note 2	1 per 2.0 ft ²	Min. ¼-inch DensDeck or DensDeck Prime	HA	System 1, 2, 3 or 4	-45.0*
S-4	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	Note 2	1 per 2.0 ft ²	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	HA, D-IS, M-OSFA, OB500 or CR-20	System 1, 2, 3 or 4	-45.0*
S-5	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	Note 2	1 per 3.2 ft ²	Min. ½-inch Structodek High Density Fiberboard Roof Insulation, min. ¾-inch FescoBoard (homogeneous) or min. ¼-inch DensDeck or DensDeck Prime.	HA	System 1, 2, 3, 4, 5 or 6	-45.0*
S-6	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or Mult-Max FA3	Note 2	1 per 1.3 ft ²	Min. ¾-inch FescoBoard (homogeneous)	HA	System 4	-52.5
S-7	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	Note 2	1 per 1.6 ft ²	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	HA, D-IS, M-OSFA, OB500 or CR-20	System 1, 2, 3 or 4	-60.0
S-8	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or Mult-Max FA3	Note 2	1 per 1.3 ft ²	Min. ½-inch Structodek High Density Fiberboard	HA	System 4	-67.5

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

System No.	Deck (Note 1)	Base Insulation Layer(s)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners	Attach		
CONVENTIONAL SYSTEMS:							
S-9	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. ¾-inch FescoBoard (homogeneous)	Note 2	1 per 2.67 ft ²	System 1, 2, 3 or 4	-30.0*
S-10	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. ½-inch Structodek High Density Fiberboard Roof Insulation	Note 2	1 per 4.0 ft ²	System 1, 2, 3 or 4	-37.5*
S-11	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers, any combination, min. 2-inch, loose laid	Min. ¾-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 4.0 ft ²	System 1, 2, 3 or 4	-45.0*
S-12	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. ½-inch Structodek High Density Fiberboard Roof Insulation, min. ¾-inch FescoBoard (homogeneous) or min. ¾-inch DensDeck	Note 2	1 per 2.0 ft ²	System 1, 2, 3 or 4	-45.0*
S-13	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1-inch FescoBoard (homogeneous) or min. 1.5-inch FescoBoard (laminated)	Note 2	1 per 1.6 ft ²	System 5 or 6	-45.0*
S-14	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. ½-inch Structodek, Structodek HD, GP HD Roof Fiberboard or Temple HD1 or HD6	Note 2	1 per 2.0 ft ²	System 5 or 6	-45.0*
S-15	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch ACFoam II, FlintBoard ISO, H-Shield or ENRGY 3, loose laid.	Min. ½-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.8 ft ²	System 1, 2, 3 or 4	-60.0
S-16	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, FlintBoard or H-Shield, loose laid	Min. ½-inch SECUROCK Gypsum-Fiber Roof Board	FlintFast 3" Plates with FlintFast #14 or Trufast MP-3 with Trufast HD	1 per 1.3 ft ²	System 1 or 2 (with hot asphalt @ 60 lb/square & gravel at 400 lb/square), 3 or 4	-157.5
S-17	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, FlintBoard or H-Shield, loose laid	Min. ½-inch DensDeck Prime	FlintFast 3" Plates with FlintFast #14 or Trufast MP-3 with Trufast HD	1 per 1.0 ft ²	System 1 or 2 (with hot asphalt @ 60 lb/square & gravel at 400 lb/square), 3 or 4	-157.5
S-18	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, FlintBoard or H-Shield, loose laid	Min. ½-inch SECUROCK Gypsum-Fiber Roof Board	FlintFast 3" Plates with FlintFast #14 or Trufast MP-3 with Trufast HD	1 per 1.0 ft ²	System 1 or 2 (with hot asphalt @ 60 lb/square & gravel at 400 lb/square), 3 or 4	-172.5
HYBRID SYSTEMS:							
S-19	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. ¾-inch DensDeck; DensDeck Prime	Note 2	1 per 2.0 ft ²	System 8	-30.0*
S-20	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or Multi-Max FA3	Note 2	1 per 1.3 ft ²	System 8	-52.5

**TABLE 2C: STEEL OR STRUCTURAL 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 (Note 1)	Insulation Layer(s)		Base or Anchor Sheet			Roof Cover (Note 15)	MDP (psf)
		Type	Attach	Base	Fasteners	Attach		
S-21	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Glasbase; All Weather/Empire Base; Flexiglas Base; Flintlastic Base 20 or Poly SMS Base	Note 2	12-inch o.c. at 4-inch lap and 36-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-30.0*
S-22	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Glasbase; All Weather/Empire Base; Flexiglas Base; Flintlastic Base 20 or Poly SMS Base	Note 2	12-inch o.c. at 4-inch lap and 24-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-45.0*
S-23	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Yosemite Venting Base	Note 2	12-inch o.c. at 4-inch lap and 18-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-45.0*
S-24	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Poly SMS Base	Note 2	12-inch o.c. at 4-inch lap and 36-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-45.0*
S-25	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base or Poly SMS Base	Note 2	12-inch o.c. at 3-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows	System 3 or 4	-52.5
S-26	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Glasbase	OMG Flat Bottom Plates with OMG #14 HD (Accutrac)	6-inch o.c. at 4-inch lap and 6-inch o.c. in two, equally spaced, staggered center rows	System 3 or 4	-67.5
S-27	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Flexiglas Base; Flintlastic Base 20 or Poly SMS Base	Note 2	6-inch o.c. at 4-inch lap and 6-inch o.c. in two, equally spaced, staggered center rows	System 3 or 4	-67.5
S-28	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, One or more layers, any combination	Prelim. Attached	Poly SMS Base	Note 2	12-inch o.c. at 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows	System 2, 3 or 4	-112.5

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

Sys. No.	Deck (Note 1)	Primer	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
			Type	Attach (Notes 6, 7 & 8)	Type	Attach (Notes 6, 7 & 8)		
C-1.	Structural concrete	ASTM D41	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	HA	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	HA	System 1, 2, 3 or 4	-225.0
C-2.	Structural concrete	ASTM D41	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	HA	Min. ½-inch Structodek High Density Fiberboard	HA	System 1, 2, 3 or 4	-227.0
C-3.	Structural concrete	ASTM D41	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	HA	Min. ¼-inch DensDeck or DensDeck Prime	HA	System 1, 2, 3 or 4	-240.0
C-4.	Structural concrete	ASTM D41	Min. 1.5-inch ACFoam II or FlintBoard ISO	HA	Min. ¾-inch FescoBoard (homogeneous)	HA	System 1, 2, 3 or 4	-412.0
C-5.	Structural concrete	ASTM D41	Min. 1.5-inch ACFoam II or FlintBoard ISO	HA	Min. ½-inch DuraBoard (homogeneous)	HA	System 1, 2, 3 or 4	-430.0
C-6.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	A-PD	Min. ½-inch Structodek High Density Fiberboard or Min. ¼-inch DensDeck	A-PD	System 1, 2, 3 or 4	-105.0
C-7.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	A-PD 6-inch o.c.	Min. ½-inch Structodek High Density Fiberboard or Min. ¼-inch DensDeck	A-PD 6-inch o.c.	System 1, 2, 3 or 4	-217.5
C-8.	Structural concrete	None	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	A-PD	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	A-PD	System 1, 2, 3 or 4	-217.5
C-9.	Structural concrete	None	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	D-IS	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	D-IS	System 1, 2, 3 or 4	-225.0
C-10.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-OSFA	Min. ½-inch Structodek High Density Fiberboard	M-OSFA	System 1, 2, 3 or 4	-127.5
C-11.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-PG1	Min. ½-inch Structodek High Density Fiberboard	M-PG1	System 1, 2, 3 or 4	-180.0
C-12.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-OSFA	Min. ¼-inch DensDeck	M-OSFA	System 1, 2, 3 or 4	-232.5
C-13.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-PG1	Min. ¼-inch DensDeck	M-PG1	System 1, 2, 3 or 4	-240.0
C-14.	Structural concrete	None	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-OSFA or M-PG1	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	M-OSFA or M-PG1	System 1, 2, 3 or 4	-225.0
C-15.	Structural concrete	None	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	OB500	Min. ½-inch Structodek High Density Fiberboard	OB500	System 1, 2, 3 or 4	-120.0
C-16.	Structural concrete	None	Min. 1.5-inch thick ACFoam II or FlintBoard ISO.	OB500	Min. ¼-inch DensDeck or DensDeck Prime	OB500	System 1, 2, 3 or 4	-150.0
C-17.	Structural concrete	None	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	OB500	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	OB500	System 1, 2, 3 or 4	-225.0

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

Sys. No.	Deck (Note 1)	Primer	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
			Type	Attach (Notes 6, 7 & 8)	Type	Attach (Notes 6, 7 & 8)		
C-18.	Structural concrete	None	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. ½-inch Structodek High Density Fiberboard or DuraBoard (homogeneous) or min. 1.5-inch FescoBoard (laminated)	CR-20	System 1, 2,3 or 4	-180.0
C-19.	Structural concrete	None	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	System 1, 2, 3 or 4	-225.0
C-20.	Structural concrete	None	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. ¼-inch DensDeck	CR-20	System 1, 2, 3 or 4	-240.0

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

System No.	Deck (Note 1)	Primer	Roof Cover (Note 15)	MDP (psf)
C-21.	Structural concrete	ASTM D41	System 7 or 8	-240.0
C-22.	Structural concrete	ASTM D41	System 1, 2, 3, 4	-635.0

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

System No.	Deck (Note 1)	LWC (Note 14)	Base Insulation Layer		Coverboard		Roof Cover (Note 15)	MDP (psf)
			Type	Attach (Notes 6, 7 & 8)	Type	Attach (Notes 6, 7 & 8)		
CELCORE (FL2037):								
LWC-1	Structural concrete	Min. 200 psi, min. 2-inch thick Celcore Cellular Concrete	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. ½-inch Structodek High Density Fiberboard or DuraBoard (homogeneous) or min. 1.5-inch FescoBoard (laminated)	CR-20	System 1, 2, 3 or 4	-180.0
LWC-2	Structural concrete	Min. 200 psi, min. 2-inch thick Celcore Cellular Concrete	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board or DensDeck or DensDeck Prime	CR-20	System 1, 2, 3 or 4	-180.0
ELASTIZELL (FL4994):								
LWC-3	Structural concrete	Min. 200 psi, min. 2-inch thick Elastzell	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	A-PD 6-inch o.c.	Min. ½-inch Structodek High Density Fiberboard or Min. ¼-inch DensDeck	A-PD 6-inch o.c.	System 1, 2, 3 or 4	-187.5
LWC-4	Structural concrete	Min. 200 psi, min. 2-inch thick Elastzell	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	A-PD 6-inch o.c.	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	A-PD 6-inch o.c.	System 1, 2, 3 or 4	-217.5
LWC-5	Structural concrete	Min. 200 psi, min. 2-inch thick Elastzell	Min. 1.5-inch thick ACFoam II or FlintBoard ISO.	OB500	Min. ¼-inch DensDeck or DensDeck Prime	OB500	System 1, 2, 3 or 4	-150.0
LWC-6	Structural concrete	Min. 200 psi, min. 2-inch thick Elastzell	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	OB500	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	OB500	System 1, 2, 3 or 4	-225.0
LWC-7	Structural concrete	Min. 200 psi, min. 2-inch thick Elastzell	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. ½-inch Structodek High Density Fiberboard or DuraBoard (homogeneous) or min. 1.5-inch FescoBoard (laminated)	CR-20	System 1, 2, 3 or 4	-180.0
LWC-8	Structural concrete	Min. 200 psi, min. 2-inch thick Elastzell	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board or DensDeck or DensDeck Prime	CR-20	System 1, 2, 3 or 4	-180.0

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

System No.	Deck (Note 1)	Lightweight Concrete (Note 14)	Base Sheet			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners	Attach		
CONVENTIONAL SYSTEMS:							
PRE-EXISTENT CELLULAR LWIC:							
LWC-9	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch thick pre-existent cellular lightweight insulating concrete. <i>Note: To qualify the LWIC under this assembly, a 1.8-inch Twin Loc-Nail shall achieve an average withdrawal of 88 lbf when tested per TAS 105 or ANSI/SPRI FX-1</i>	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base or Poly SMS Base	Min. 1.8-inch Trufast Twin Loc-Nail	9-inch o.c. at the 4-inch lap and 9-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-60.0
LWC-10	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch thick pre-existent cellular lightweight insulating concrete. <i>Note: To qualify the LWIC under this assembly, a 1.8-inch Twin Loc-Nail shall achieve an average withdrawal of 77 lbf when tested per TAS 105 or ANSI/SPRI FX-1</i>	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base or Poly SMS Base	Min. 1.8-inch Trufast Twin Loc-Nail	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-67.5
LWC-11	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 350 psi, min. 3-inch thick pre-existent cellular lightweight insulating concrete. <i>Note: To qualify the LWIC under this assembly, a 1.8-inch Twin Loc-Nail shall achieve an average withdrawal of 97 lbf when tested per TAS 105 or ANSI/SPRI FX-1</i>	Flexiglas Base; Flintlastic Base 20 or Poly SMS Base	Trufast FM-90 Base Ply Fasteners	7-inch o.c. at the 4-inch lap and 10-inch o.c. in two, equally spaced, staggered center rows	System 3 or 4	-67.5
LWC-12	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch thick pre-existent cellular lightweight insulating concrete. <i>Note: To qualify the LWIC under this assembly, a 1.8-inch Twin Loc-Nail shall achieve an average withdrawal of 110 lbf when tested per TAS 105 or ANSI/SPRI FX-1</i>	Poly SMS Base	Min. 1.8-inch Trufast Twin Loc-Nail	9-inch o.c. at the 4-inch lap and 9-inch o.c. in two, equally spaced, staggered center rows	System 3 or 4	-75.0
CELCORE (FL2037):							
LWC-13	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 300 psi, min 2-inch thick Celcore Cellular Concrete. After setting to support foot traffic, Celcore PVA Curing Compound is applied.	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base or Poly SMS Base	Trufast FM-90 Base Ply Fasteners	7-inch o.c. at the 3-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows	System 3 or 4	-75.0
CONCRECEL (FL5584 & FL10500):							
LWC-14	Min. 22 ga. steel at max 5 ft spans or structural concrete	Concrecel Bonding Agent on deck; Min. 300 psi, min 2¼-inch thick Concrecel Concrete.	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base or Poly SMS Base	OMG CR Base Ply Fasteners (1.7)	7-inch o.c. at the 3-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-52.5
ELASTIZELL (FL4994):							
LWC-15	Min. 26 ga. steel at max 5 ft spans or structural concrete	Min. 200 psi, min 2-inch thick Range II Elastizell Lightweight Insulating Concrete.	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base or Poly SMS Base	Trufast FM-90 Base Ply Fasteners or Twin Loc-Nails (1.8 inch)	7½-inch o.c. at the 4-inch lap and 7½-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-30.0
LWC-16	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 200 psi, min 2-inch thick Range II Elastizell Lightweight Insulating Concrete.	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base or Poly SMS Base	Trufast FM-90 Base Ply Fasteners or Twin Loc-Nails (1.8 inch)	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-45.0

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

System No.	Deck (Note 1)	Lightweight Concrete (Note 14)	Base Sheet			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners	Attach		
MEARLCRETE (FL13492):							
LWC-17	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 250 psi, min 2-inch thick Mearlcrete.	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base or Poly SMS Base	OMG CR Base Ply Fasteners (1.7)	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-45.0
LWC-18	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 250 psi, min 2-inch thick Mearlcrete.	Poly SMS Base	OMG CR Base Ply Fasteners (1.7)	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-52.5
LWC-19	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 300 psi, min 2-inch thick Mearlcrete.	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base or Poly SMS Base	OMG CR Base Ply Fasteners (1.7)	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows	System 3 or 4	-52.5
HYBRID SYSTEMS:							
PRE-EXISTENT CELLULAR LWIC:							
LWC-20	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch thick Approved cellular lightweight insulating concrete. <i>Note: To qualify the LWIC under this assembly, a 1.8-inch Twin Loc-Nail shall achieve an average withdrawal of 88 lbf when tested per TAS 105 or ANSI/SPRI FX-1</i>	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base or Poly SMS Base	Min. 1.8-inch Trufast Twin Loc-Nail	9-inch o.c. at the 4-inch lap and 9-inch o.c. in two, equally spaced, staggered center rows	System 8	-60.0
LWC-21	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 350 psi, min. 3-inch thick Approved cellular lightweight insulating concrete. <i>Note: To qualify the LWIC under this assembly, a 1.8-inch Twin Loc-Nail shall achieve an average withdrawal of 97 lbf when tested per TAS 105 or ANSI/SPRI FX-1</i>	Flexiglas Base; Flintlastic Base 20 or Poly SMS Base	Trufast FM-90 Base Ply Fasteners	7-inch o.c. at the 4-inch lap and 10-inch o.c. in two, equally spaced, staggered center rows	System 8	-67.5
LWC-22	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 300 psi, min. 2-inch thick Approved cellular lightweight insulating concrete. <i>Note: To qualify the LWIC under this assembly, a 1.8-inch Twin Loc-Nail shall achieve an average withdrawal of 110 lbf when tested per TAS 105 or ANSI/SPRI FX-1</i>	Poly SMS Base	Min. 1.8-inch Trufast Twin Loc-Nail	9-inch o.c. at the 4-inch lap and 9-inch o.c. in two, equally spaced, staggered center rows	System 8	-75.0
ELASTIZELL (FL4994):							
LWC-23	Min. 26 ga. steel at max 5 ft spans or structural concrete	Min. 200 psi, min 2-inch thick Range II Elastizell Lightweight Insulating Concrete.	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base or Poly SMS Base	Trufast FM-90 Base Ply Fasteners or Twin Loc-Nails (1.8 inch)	7½-inch o.c. at the 4-inch lap and 7½-inch o.c. in two, equally spaced, staggered center rows	System 8	-30.0
LWC-24	Min. 22 ga. steel at max 5 ft spans or structural concrete	Min. 200 psi, min 2-inch thick Range II Elastizell Lightweight Insulating Concrete.	Glasbase; Flexiglas Base; Flintlastic Base 20; All Weather / Empire Base or Poly SMS Base	Trufast FM-90 Base Ply Fasteners or Twin Loc-Nails (1.8 inch)	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows	System 8	-45.0

**TABLE 5A: CEMENTITIOUS WOOD FIBER DECKS – NEW CONSTRUCTION or REROOF (Tear-Off)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER**

System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
		Type	Attach (Notes 6, 7 & 8)	Type	Attach (Notes 6, 7 & 8)		
CONVENTIONAL SYSTEMS:							
CWF-1.	Existing Tectum (reroof only)	Min. 1.5-inch FlintBoard ISO, ACFoam II, ENRGY 3 or Multi-Max FA3	OB500	Min. ½-inch Structodek High Density Fiberboard, Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board or DensDeck or DensDeck Prime	OB500	System 1, 2, 3 or 4	-45.0
CWF-2.	Tectum	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. ½-inch Structodek High Density Fiberboard or DuraBoard (homogeneous) or min. 1.5-inch FescoBoard (laminated), min. ¼-inch SECUROCK Gypsum-Fiber Roof Board or DensDeck or DensDeck Prime	CR-20	System 1, 2, 3 or 4	-52.5
HYBRID SYSTEMS:							
CWF-3.	Existing Tectum (reroof only)	Min. 1.5-inch FlintBoard ISO, ACFoam II, ENRGY 3 or Multi-Max FA3	OB500	Min. ¼-inch DensDeck or DensDeck Prime	OB500	System 7 or 8	-30.0
CWF-4.	Tectum	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. ¼-inch DensDeck or DensDeck Prime	CR-20	System 7 or 8	-30.0
CWF-5.	Existing Tectum (reroof only)	Min. 1.5-inch FlintBoard ISO, ACFoam II, ENRGY 3 or Multi-Max FA3	OB500	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	OB500	System 7 or 8	-45.0
CWF-6.	Tectum	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	System 7 or 8	-45.0

TABLE 5B: CEMENTITIOUS WOOL FIBER DECKS – REROOF (Tear-Off)
SYSTEM TYPE A-2: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Anchor Sheet			Base Insulation		Top Insulation		Roof Cover (Note 15)	MDP (psf)
		Type	Fasteners (Note 11)	Attach	Type	Attach (Notes 6, 7 & 8)	Type	Attach (Notes 6, 7 & 8)		
CONVENTIONAL SYSTEMS:										
CWF-7.	Existing Tectum (reroof only)	All Weather / Empire Base or Poly SMS Base	Insuldeck Loc-Nails	9-inch o.c. at the 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows	(Optional) Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or Multi-Max FA3	HA	Min. ¼-inch FescoBoard (homogeneous) or min. ½-inch Structodek High Density Fiberboard	HA	System 1, 2, 3 or 4	-30.0*
CWF-8.	Existing Tectum (reroof only)	All Weather / Empire Base or Poly SMS Base	Insuldeck Loc-Nails	7½-inch o.c. at the 4-inch lap and 7½-inch o.c. in two, equally spaced, staggered center rows	(Optional) Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or Multi-Max FA3	HA	Min. ¼-inch FescoBoard (homogeneous) or min. ½-inch Structodek High Density Fiberboard	HA	System 1, 2, 3 or 4	-45.0*
CWF-9.	Existing Tectum (reroof only)	Glasbase; Flexiglas Base; Flintlastic Base 20 or All Weather / Empire Base or Poly SMS Base	Min. 1.8-inch Trufast Twin Loc-Nail	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or Multi-Max FA3	HA	Min. ¼-inch FescoBoard (homogeneous) or min. ½-inch Structodek High Density Fiberboard	HA	System 4	-60.0
HYBRID SYSTEMS:										
CWF-10.	Existing Tectum (reroof only)	Glasbase; Flexiglas Base; Flintlastic Base 20 or All Weather / Empire Base or Poly SMS Base	Min. 1.8-inch Trufast Twin Loc-Nail	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or Multi-Max FA3	HA	None	N/A	System 8	-60.0

TABLE 5C: CEMENTITIOUS WOOD FIBER DECKS –REROOF (Tear-Off) or RECOVER							
SYSTEM TYPE C: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER							
System No.	Deck (Note 1)	Base Insulation Layer(s)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 11)	Attach		
CWF-11.	Existing Tectum (reroof only)	(Optional) One or more layers, any combination, loose laid	Min. ½-inch Structodek High Density Fiberboard Roof Insulation	OMG Polymer GypTec with 3" GypTec Plate	1 per 2.0 ft ²	System 1, 2, 3 or 4	-45.0*
CWF-12.	Existing Tectum (reroof only)	(Optional) One or more layers, any combination, loose laid	Min. ¼-inch DensDeck or DensDeck Prime	OMG Polymer GypTec with 3" GypTec Plate	1 per 1.8 ft ²	System 1, 2, 3 or 4	-45.0*
CWF-13.	Existing Tectum (reroof only)	(Optional) One or more layers, any combination, loose laid	Min. ½-inch Structodek High Density Fiberboard Roof Insulation, min. ¼-inch DensDeck or DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Trufast Twin Loc-Nails (minimum 1-inch embedment into deck)	1 per 2.0 ft ²	System 1, 2, 3 or 4	-45.0*

TABLE 5D: CEMENTITIOUS WOOD FIBER DECKS –REROOF (Tear-Off)							
SYSTEM TYPE E: MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER							
System No.	Deck (Note 1)	Base Sheet			Roof Cover (Note 15)	MDP (psf)	
		Base	Fasteners (Note 11)	Attach			
CWF-14.	Existing Tectum (reroof only)	All Weather / Empire Base or Poly SMS Base	Trufast Insuldeck Loc-Nails	9-inch o.c. at the 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-30.0*	
CWF-15.	Existing Tectum (reroof only)	All Weather / Empire Base or Poly SMS Base	Trufast Insuldeck Loc-Nails	7½-inch o.c. at the 4-inch lap and 7½-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-45.0*	
CWF-16.	Existing Tectum (reroof only)	Glasbase; Flexiglas Base; Flintlastic Base 20 or All Weather / Empire Base or Poly SMS Base	Min. 1.8-inch Trufast Twin Loc-Nail	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows	System 3 or 4	-67.5	

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

System No.	Deck	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
		Type	Attach (Notes 6, 7 & 8)	Type	Attach (Notes 6, 7 & 8)		
G-1.	Existing sound gypsum or gypsum plank	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-OSFA	Min. ½-inch Structodek High Density Fiberboard	M-OSFA	System 1, 2, 3 or 4	-127.5
G-2.	Existing sound gypsum or gypsum plank	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-OSFA	Min. ¼-inch DensDeck	M-OSFA	System 1, 2, 3 or 4	-232.5
G-3.	Existing sound gypsum or gypsum plank	Min. 2-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-OSFA	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	M-OSFA	System 1, 2, 3 or 4	-202.5
G-4.	Existing sound gypsum or gypsum plank	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	OB500	Min. ½-inch Structodek High Density Fiberboard	OB500	System 1, 2, 3 or 4	-120.0
G-5.	Existing sound gypsum or gypsum plank	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	OB500	Min. ¼-inch DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	OB500	System 1, 2, 3 or 4	-135.0
G-6.	Existing sound gypsum or gypsum plank	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. ½-inch Structodek High Density Fiberboard or DuraBoard (homogeneous) or min. 1.5-inch FescoBoard (laminated)	CR-20	System 1, 2, 3 or 4	-180.0
G-7.	Existing sound gypsum or gypsum plank	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	System 1, 2, 3 or 4	-225.0
G-8.	Existing sound gypsum or gypsum plank	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. ¼-inch DensDeck	CR-20	System 1, 2, 3 or 4	-240.0

TABLE 6B: GYPSUM DECKS – REROOF (Tear-Off)
SYSTEM TYPE A-2: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Anchor Sheet			Base Insulation		Top Insulation		Roof Cover (Note 15)	MDP (psf)
		Type	Fasteners (Note 11)	Attach	Type	Attach (Notes 6, 7 & 8)	Type	Attach (Notes 6, 7 & 8)		
CONVENTIONAL SYSTEMS:										
G-9.	Existing sound gypsum or gypsum plank	All Weather / Empire Base or Poly SMS Base	Trufast FM-75 or FM-90 Base Ply Fasteners	9-inch o.c. at the 4-inch lap and 18-inch o.c. in two, equally spaced, staggered center rows	(Optional) Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or Multi-Max FA3	HA	Min. ¼-inch FescoBoard (homogeneous) or min. ½-inch Structodek High Density Fiberboard	HA	System 1, 2, 3 or 4	-45.0*
G-10.	Existing sound gypsum or gypsum plank	Glasbase; Flexiglas Base; Flintlastic Base 20 or All Weather / Empire Base or Poly SMS Base	Min. 1.8-inch Trufast Twin Loc-Nail	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or Multi-Max FA3	HA	Min. ¼-inch FescoBoard (homogeneous) or min. ½-inch Structodek High Density Fiberboard	HA	System 4	-60.0

TABLE 6B: GYPSUM DECKS – REROOF (Tear-Off)										
SYSTEM TYPE A-2: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER										
System No.	Deck (Note 1)	Anchor Sheet			Base Insulation		Top Insulation		Roof Cover (Note 15)	MDP (psf)
		Type	Fasteners (Note 11)	Attach	Type	Attach (Notes 6, 7 & 8)	Type	Attach (Notes 6, 7 & 8)		
HYBRID SYSTEMS:										
G-11.	Existing sound gypsum or gypsum plank	Glasbase; Flexiglas Base; Flintlastic Base 20 or All Weather / Empire Base or Poly SMS Base	Min. 1.8-inch Trufast Twin Loc-Nail	7-inch o.c. at the 4-inch lap and 7-inch o.c. in two, equally spaced, staggered center rows	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or Multi-Max FA3	HA	None	N/A	System 8	-60.0

TABLE 6C: GYPSUM DECKS – REROOF (Tear-Off)										
SYSTEM TYPE C: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER										
System No.	Deck (Note 1)	Base Insulation Layer(s)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)			
			Type	Fasteners (Note 11)	Attach					
G-12.	Existing sound gypsum or gypsum plank	(Optional) One or more layers, any combination, loose laid	Min. ½-inch Structodek High Density Fiberboard Roof Insulation	OMG Polymer GypTec with 3” GypTec Plate	1 per 2.0 ft ²	System 1, 2, 3 or 4	-45.0*			
G-13.	Existing sound gypsum or gypsum plank	(Optional) One or more layers, any combination, loose laid	Min. ¼-inch DensDeck or DensDeck Prime	OMG Polymer GypTec with 3” GypTec Plate	1 per 1.8 ft ²	System 1, 2, 3 or 4	-45.0*			
G-14.	Existing sound gypsum or gypsum plank	(Optional) One or more layers, any combination, loose laid	Min. ½-inch Structodek High Density Fiberboard Roof Insulation, Min. ¼-inch DensDeck or DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Trufast Twin Loc-Nails (minimum 1-inch embedment into deck)	1 per 2.0 ft ²	System 1, 2, 3 or 4	-45.0*			

TABLE 6D: GYPSUM DECKS – REROOF (Tear-Off)										
SYSTEM TYPE E: MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER										
System No.	Deck (Note 1)	Base Sheet			Roof Cover (Note 15)	MDP (psf)				
		Base	Fasteners (Note 11)	Attach						
G-15.	Existing sound gypsum or gypsum plank	All Weather / Empire Base or Poly SMS Base	Trufast FM-75 or FM-90 Base Ply Fasteners	9-inch o.c. at the 4-inch lap and 18-inch o.c. in two, equally spaced, staggered center rows	System 1, 2, 3 or 4	-45.0*				
G-16.	Existing sound gypsum or gypsum plank	Glasbase; Flexiglas Base; Flintlastic Base 20 or All Weather / Empire Base or Poly SMS Base	Min. 1.8-inch Trufast Twin Loc-Nail	9-inch o.c. at the 4-inch lap and 9-inch o.c. in two, equally spaced, staggered center rows	System 3 or 4	-67.5				

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

System No.	Substrate (Notes 1 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
		Type	Attach (Notes 6, 7 & 8)	Type	Attach (Notes 6, 7 & 8)		
R-1	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3, H-Shield or Multi-Max FA3	HA	Min. ½-inch Structodek High Density Fiberboard, Min. ¾-inch FescoBoard (homogeneous) or Min. ½-inch DuraBoard (homogeneous), min. ¼-inch SECUROCK Gypsum-Fiber Roof Board, DensDeck or DensDeck Prime	HA	System 1, 2, 3 or 4	-105.0
R-2	Existing fully bonded, <u>smooth</u> surface BUR or modified bitumen	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	A-PD 6-inch o.c.	Min. ½-inch Structodek High Density Fiberboard, min. ¼-inch SECUROCK Gypsum-Fiber Roof Board or DensDeck	A-PD 6-inch o.c.	System 1, 2, 3 or 4	-52.5
R-3	Existing fully bonded, <u>mineral</u> surface BUR or modified bitumen	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	A-PD 6-inch o.c.	Min. ½-inch Structodek High Density Fiberboard, min. ¼-inch SECUROCK Gypsum-Fiber Roof Board or DensDeck	A-PD 6-inch o.c.	System 1, 2, 3 or 4	-172.5
R-4	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-OSFA	Min. ½-inch Structodek High Density Fiberboard	M-OSFA	System 1, 2, 3 or 4	-127.5
R-5	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-OSFA	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board or DensDeck	M-OSFA	System 1, 2, 3 or 4	-157.5
R-6	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	M-PG1	Min. ½-inch Structodek High Density Fiberboard, min. ¼-inch SECUROCK Gypsum-Fiber Roof Board or DensDeck	M-PG1	System 1, 2, 3 or 4	-180.0
R-7	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.5-inch ACFoam II, FlintBoard ISO, ENRGY 3 or H-Shield	OB500	Min. ½-inch Structodek High Density Fiberboard, min. ¼-inch SECUROCK Gypsum-Fiber Roof Board, DensDeck or DensDeck Prime	OB500	System 1, 2, 3 or 4	-120.0
R-8	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. ½-inch Structodek High Density Fiberboard or DuraBoard (homogeneous) or min. 1.5-inch FescoBoard (laminated)	CR-20	System 1, 2, 3 or 4	-180.0
R-9	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. ¼-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	System 1, 2, 3 or 4	-225.0
R-10	Existing fully bonded BUR or modified bitumen roof cover	Min. 1.0-inch ISO 95+ GL, H-Shield, H-Shield CG, ENRGY 3 or min. 1.3-inch ACFoam III, Min. 1.5-inch Multi-Max FA3 or Ultra-Max	CR-20	Min. ¼-inch DensDeck	CR-20	System 1, 2, 3 or 4	-240.0