

Florida Building Code Online Product Approval

Information Sheet

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Product Approval

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- ▶ COMMUNITY PLANNING
- ▶ HOUSING & COMMUNITY DEVELOPMENT
- ▶ EMERGENCY MANAGEMENT
- ▶ OFFICE OF THE SECRETARY

FL #	FL5293-R2
Application Type	Revision
Code Version	2007
Application Status	Approved
Comments	
Archived	<input type="checkbox"/>
Product Manufacturer	GAF Materials Corporation
Address/Phone/Email	1361 Alps Road Wayne, NJ 07470 (973) 872-4421 bmcsorley@gaf.com
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Quality Assurance Representative
Address/Phone/Email

Category
Subcategory

Roofing
Single Ply Roof Systems

Compliance Method

Evaluation Report from a Florida Registered Architect or a
Licensed Florida Professional Engineer
 Evaluation Report - Hardcopy Received

Florida Engineer or Architect Name who
developed the Evaluation Report

Robert Nieminen

Florida License

PE-59166

Quality Assurance Entity

Underwriters Laboratories Inc.

Quality Assurance Contract Expiration Date

10/01/2011

Validated By

John W. Knezevich, PE

Validation Checklist - Hardcopy Received

Certificate of Independence

[FL5293_R2_COI_Trinity_ERD_Certificaiton_of_Independence.pdf](#)

Referenced Standard and Year (of Standard)

<u>Standard</u>	<u>Year</u>
ASTM D6878	2003
FM 4470	1992
TAS 114	1995

Equivalence of Product Standards
Certified By

Sections from the Code

Product Approval Method

Method 1 Option D

Date Submitted

06/16/2008

Date Validated

07/10/2008

Date Pending FBC Approval

07/14/2008

Date Approved

09/15/2008

Summary of Products		
FL #	Model, Number or Name	Description
5293.1	EverGuard TPO Single-Ply Roof Membrane Systems	Single-ply, thermoplastic polyolefin roofing systems
Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: +N/A/-472.5 Other: 1.) The design pressure noted in this application relates to one specific assembly in the ER Appendix. Refer to the ER Appendix for all systems and associated max. design pressures. 2.) Refer to ER Section 5 for Limits of Use		Installation Instructions FL5293_R2_II_A1_er071008FINAL_GAF_FL5293-R2.pdf Verified By: Robert Nieminen PE-59166 Created by Independent Third Party: Yes Evaluation Reports FL5293_R2_AE_er071008FINAL_GAF_FL5293-R2.pdf Created by Independent Third Party: Yes

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DCA Administration

Department of Community Affairs

**Florida Building Code Online
Codes and Standards**

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Product Approval Accepts:





EXTERIOR RESEARCH & DESIGN, LLC.
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EVALUATION REPORT

GAF Materials Corporation
1361 Alps Road
Wayne, NJ 07470

Evaluation Report 01506.09.05-R3
FL5293-R2
Date of Issuance: 11/09/2005
Revision 3: 07/10/2008

SCOPE:

This Evaluation Report is issued under Rule 9B-72 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 designed to comply with the 2007 Florida Building Code.

DESCRIPTION: EverGuard® TPO Single-Ply Roof Membrane Systems

LABELING: Each unit shall bear labeling 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 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.

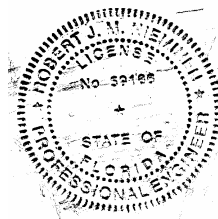
ADVERTISEMENT: The Evaluation Report number preceded by the words "TRINITY|ERD Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

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 26-page Appendix.

Prepared by:

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



The facillie seal appearing was authorized by Robert Nieminen, P.E. on 07/10/2008. 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.

ROOFING SYSTEMS EVALUATION:

1. SCOPE:

Product Category: Roofing
Sub-Category: Single Ply Roof Systems
Compliance Statement: EverGuard® TPO Single-Ply Roof Membrane Systems, as produced by GAF Materials 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 4470 / 4450	1992
1504.7	Impact	FM 4470	1992
1507.13.2	Physical Properties	ASTM D6878	2003
1523.6.2	Wind	TAS 114	1995

3. REFERENCES:

<u>Entity</u>	<u>Exam</u>	<u>Reference</u>	<u>Date</u>	<u>Entity</u>	<u>Exam</u>	<u>Reference</u>	<u>Date</u>
ACRC	TAS 114	06-035	10/18/2006	FM App	FM 4470/50	3014692	08/05/2003
ACRC	TAS 114	07-005	01/17/2007	FM App	FM 4470/50	3014955	01/22/2004
ACRC	TAS 114	07-024	03/01/2007	FM App	FM 4470/50	3012721	02/11/2004
ACRC	TAS 114	07-016	04/19/2007	FM App	FM 4470/50	3015029	02/19/2004
ACRC	TAS 114	07-017	04/19/2007	FM App	FM 4470/50	3020588	03/24/2004
ACRC	TAS 114	07-025	05/02/2007	FM App	FM 4470/50	3019881	03/20/2004
ACRC	TAS 114	07-026	05/03/2007	FM App	FM 4470/50	3016068	04/02/2004
ACRC	TAS 114	07-027	05/04/2007	FM App	FM 4470/50	3013861	05/21/2004
ACRC	TAS 114	07-042	08/31/2007	FM App	FM 4470/50	3105578	05/12/2004
ACRC	TAS 114	07-043	09/05/2007	FM App	FM 4470/50	3014955	01/28/2005
ACRC	TAS 114	07-045	09/06/2007	FM App	FM 4470/50	3022136	03/17/2005
ACRC	TAS 114	07-046	09/06/2007	FM App	FM 4470/50	3020681	09/01/2005
ACRC	TAS 114	07-048	09/07/2007	FM App	FM 4470/50	3024051	03/28/2006
ACRC	TAS 114	07-049	09/10/2007	FM App	FM 4470/50	3023458	07/18/2006
ACRC	TAS 114	07-080	01/03/2008	FM App	FM 4470/50	3027159	10/03/2006
ACRC	TAS 114	07-083	01/11/2008	FM App	FM 4470/50	3026149	02/05/2007
ACRC	TAS 114	08-022	04/17/2008	FM App	FM 4470/50	3026964	07/25/2007
ACRC	TAS 114	08-030	04/05/2008	FM App	FM 4470/50	3030199	11/05/2007
ACRC	TAS 114	08-023	04/17/2008	FM App	FM 4470/50	3030813	11/05/2007
ACRC	TAS 114	08-033	04/19/2008	FM App	FM 4470/50	3030292	02/25/2008
ACRC	TAS 114	08-032	04/19/2008	IRT	TAS 114	02-008	01/18/2002
Florida Testing Engineering & Consulting, Inc.	TAS 114	08-050183	06/26/2008	IRT	TAS 114	03-0728	02/17/2004
	TAS 114	08-050184	06/26/2008	IRT	TAS 114	04-012	02/18/2004
FM App	FM 4470/50	3003617	12/20/1999	IRT	TAS 114	04-019	04/26/2004
FM App	FM 4470/50	3009026	06/18/2002	M-D BCCO	Physicals	NOAs	Current
FM App	FM 4470/50	3013861	03/28/2003	UL	QC	R1306	Current

4. PRODUCT DESCRIPTION:

This Evaluation Report covers EverGuard® TPO Single-Ply Roof Membrane Systems installed in accordance with GAF published installation instructions and the Limitations / Conditions of Use herein.

- **EverGuard® TPO** membranes are nominal 45-mil (1.1 mm), 60-mil (1.52-mm) or 80-mil (2.0 mm) thick, internally reinforced thermoplastic polyolefin roof covers supplied in rolls 60 or 120 inch wide by 100 ft long. Side and end laps are sealed using hot air welding. The roof cover is mechanically attached or fully-adhered to Approved substrates.

- **EverGuard® TPO FB Ultra** membranes are nominal 45-mil (1.1 mm), 60-mil (1.52-mm) or 80-mil (2.0 mm) thick, internally reinforced thermoplastic (TPO) roof covers with a polyester fleece backing, supplied in rolls 60 or 120 inch wide by 100 ft long. Side and end laps are sealed using hot air welding. The roof cover is mechanically attached or fully-adhered to Approved substrates.
- **EverGuard® Freedom™ TPO** membranes are nominal 45-mil (1.1 mm) or 60-mil (1.52-mm) thick, internally reinforced thermoplastic (TPO) roof covers with a self-adhering backing, supplied in rolls 60 or 120 inch wide by 50 or 100 ft long. Freedom TPO HW laps are sealed using hot air welding. Freedom TPO with Rapid Seam Technology laps are self-adhering. The roof cover is self-adhered to Approved substrates.

5. LIMITATIONS:

- 5.1 This Evaluation Report is not for use in HVHZ.
- 5.2 Refer to a current Roofing Materials Directory for fire ratings of this product.
- 5.3 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 or 2603.6 apply.
- 5.4 Unless otherwise noted in Appendix 1, roof decking and its attachment shall be specified and installed to meet project design criteria to the satisfaction of the AHJ.
- 5.5 For recover installations, the existing roof shall be examined in accordance with FBC 1510.
- 5.6 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, RAS 137 and FM LPDS 1-29.
- 5.7 For fully-adhered insulation, 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 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.
- 5.9 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 or FM LPDS 1-52 shall be conducted on mock-ups of the proposed new roof assembly.
- 5.10 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 or FM LPDS 1-52.
- 5.11 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.
- 5.12 All products in the roof assembly shall have quality assurance audit in accordance with the FBC and F.A.C. Rule 9B-72.

6. INSTALLATION:

- 6.1 EverGuard® TPO Single-Ply Roof Membrane Systems shall be installed in accordance with GAF published installation instructions, subject to the Limitations / Conditions of Use noted herein.
- 6.2 System attachment requirements for wind load resistance are set forth in Appendix 1.
- 6.3 For mechanically fastened membrane systems (Type D) over profiled steel deck, membrane shall be installed running perpendicular to steel deck flutes.

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:

EverGuard TPO and TPO FB Ultra: Mt. Vernon, IN; Gainsville, TX
EverGuard Freedom TPO: Newbury, MA; Evansville, IN

9. QUALITY ASSURANCE ENTITY:

Underwriters Laboratories – QUA1743

- THE 26-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-1	Bonded Insulation, Bonded Roof Cover	4
1B	Wood	New, Reroof (Tear-Off) or Recover	D	Insulated, Mechanically Attached Roof Cover	4
2A-1	Steel or Conc.	New, Reroof (Tear-Off) or Recover	B-1	Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	5
2A-2	Steel	New, Reroof (Tear-Off) or Recover	B-2	Mech. Attached Thermal Barrier, Bonded Vapor Barrier / Temp Roof, Bonded Base Insulation, Bonded Top Insulation, Bonded Roof Cover	6
2B	Steel or Conc.	New, Reroof (Tear-Off) or Recover	C	Mechanically Attached Insulation, Bonded Roof Cover	7-9
2C	Steel	New, Reroof (Tear-Off) or Recover	D	Insulated, Mechanically Attached Roof Cover	10-11
3A	Concrete	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	12-15
3B	Concrete	New, Reroof (Tear-Off) or Recover	F	Non-Insulated, Bonded Roof Cover	15
4A	LWIC	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	16-18
4B	LWIC	New or Reroof (Tear Off)	E	Mechanically Attached Base Sheet, Bonded Roof Cover	19
4C	LWIC	New or Reroof (Tear Off)	F	Non-Insulated, Bonded Roof Cover	20
5A	CWF	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	21
6A	Gypsum	Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	22-23
6B	Gypsum	Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	23
7A	Various	Recover	A-1	Bonded Insulation, Bonded Roof Cover	24-26
7B	Various	Recover	F	Non-Insulated, Bonded Roof Cover	26

The following notes apply to the systems outlined herein:

1. 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: Drill-Tec #12 or #14 with Drill-Tec 3" Metal Plates. Min. ¾-inch plywood penetration or minimum 1-inch wood plank embedment.
 - Steel Deck: Drill-Tec #12 or #14 with Drill-Tec 3" Metal Plates. Minimum ¾-inch steel penetration, engage the top flute of the steel deck.
 - Concrete Deck: Drill-Tec #14 with Drill-Tec 3" Metal Plates. 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, DensDeck, DensDeck Prime, DensDeck DuraGuard or SECUROCK that meets the QA requirements of F.A.C. Rule 9B-72 and is documented as meeting FBC 1505.1 and, for foam plastic, FBC 2603.4.1 or 2603.6, when installed with the roof cover.
4. Minimum 200 psi, minimum 2-inch thick lightweight insulating concrete may be substituted for rigid insulation board for System Type D (mechanically attached membrane), whereby the membrane fasteners are installed through the LWIC to engage the structural steel or concrete deck. The structural deck shall be of equal or greater configuration to the steel and concrete deck listings.
5. Preliminary insulation attachment for System Type D = Minimum four fasteners per 4 x 8 ft board or minimum two fasteners per 4 x 4 ft board.
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 mopping, 25-30 lbs/square.
 - OMG OlyBond Adhesive Fastener (Classic): Full coverage, 1 gal/square.
 - OMG OlyBond 500: Continuous ¾ to 1-inch wide ribbons, 12-inch o.c. (Note: OlyBond Adhesive Fastener (Classic), SpotShot or OlyBond Green may be used wherever OlyBond 500 is referenced)
 - Polyfoam TITSEET Insulation Adhesive: Continuous 2.5 to 3.5-inch ribbons, 12-inch o.c.
7. Tapered polyisocyanurate may be substituted for the flat stock board with the following Maximum Design Pressure (MDP) limitations:
 - OMG OlyBond 500 or OlyBond Green: Maximum Design Pressure -120.0 psf
 - Polyfoam TITSEET Insulation Adhesive: Maximum Design Pressure -117.5 psf
8. Bonded polyisocyanurate insulation boards shall be maximum 4 x 4 ft.
9. 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.
10. For fully bonded assemblies, 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.
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 shall be in accordance with TAS 105.
12. For existing substrates in a bonded 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 or FM LPDS 1-52.



13. For System Type D, steel deck applications, the roof membrane shall be run with its length perpendicular to the steel deck flutes.
14. Side laps for EverGuard Freedom TPO with Rapid Seam Technology are self-adhering. Side laps for EverGuard TPO HW are heat welded. Unless otherwise noted, reference to EverGuard Freedom TPO in this Appendix relates to either method.
15. For adhesive-applied membrane systems, side laps shall be minimum 3-inch wide sealed with min. 1.5-inch heat weld. Unless otherwise noted, membrane adhesive application rates are as follows:
 - EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive: Applied to both the substrate and roof cover underside at 0.8 to 1.0 gal/sq/surface
 - EverGuard TPO / EverGuard H2O Bonding Adhesive: Applied to both the substrate and roof cover underside at 0.415 gal/sq/surface
 - EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive: Applied to the substrate 0.83 gal/sq
16. The "Triposite Roofing System" noted herein consists of loose-laid GAFGLAS Stratavent Eliminator Venting Base Sheet (Perforated), followed by asphalt-applied two (2) plies of Ruberoid 20 or three (3) plies of GAFGLAS FlexPly 6, followed by asphalt-applied EverGuard TPO FB Ultra with 1-5/8" heat welded side laps.

TABLE 1A: NEW CONSTRUCTION or REROOF (Tear-Off) – WOOD DECKS							
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER							
System No.	Deck (See Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
		Type	Attach	Type	Attach		
W-1.	Min. 19/32" plywood or OSB attached 6" o.c. to wood supports at max. 2 ft o.c. using 8d common nails	One or more layers min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layers base insulation, flat or tapered	TITASET, 12" o.c.	EverGuard TPO Freedom	-52.5
W-2.	Min. 19/32" plywood or OSB attached 6" o.c. to wood supports at max. 2 ft o.c. using 8d common nails	One or more layers min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layers base insulation, flat or tapered	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-52.5

TABLE 1B: NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER - WOOD DECKS							
SYSTEM TYPE D: MECHANICALLY ATTACHED ROOF COVER							
System No.	Deck (See Note 1)	Insulation		Roof Cover			Max. Design Pressure (psf)
		Type	Attach	Membrane	Fasteners	Attachment	
W-3.	Min. 19/32" plywood attached 6" o.c. to wood supports at max. 2 ft o.c. using 8d common nails	(Optional) One or more layers, any combination	Prelim. attached	EverGuard TPO	Drill-Tec XHD #15 with Drill-Tec 2" SHD Double-Barbed Seam Plates	Fastened 6" o.c. within 5" wide laps spaced 114.5" o.c. and sealed with a 1.75" heat weld.	-45.0
W-4.	Min. 19/32" plywood attached 6" o.c. to wood supports at max. 2 ft o.c. using 8d common nails	(Optional) One or more layers, any combination	Prelim. attached	EverGuard TPO	Drill-Tec XHD #15 with Drill-Tec 2" SHD Double-Barbed Seam Plates	Fastened 6" o.c. within 5" wide laps spaced 55" o.c. and sealed with a 1.75" heat weld.	-52.5
W-5.	Min. 19/32" plywood attached 6" o.c. to wood supports at max. 2 ft o.c. using #8 ring shank nails and 4" o.c. at perimeter of sheet with #10 ring shank nails	(Optional) One or more layers, any combination	Prelim. attached	EverGuard TPO	Drill-Tec HD #14 with Drill-Tec 3" SHD Drill-Tec Acu-Trac Seam Plates	Fastened 6" o.c. within 5" wide laps spaced 60" o.c. and sealed with a 1.5" heat weld.	-97.5

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

System No.	Deck (See Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
		Type	Fasteners	Attach	Type	Attach		
S-1.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	See Note 2	1 per 2 ft ²	Min. 0.25" SECUROCK	OlyBond 500 or TITESET, 12" o.c.	EverGuard Freedom TPO/ self adhered	-45.0
S-2.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min 2" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	See Note 2	1 per 4 ft ²	Min. 0.25" SECUROCK	OlyBond 500 or TITESET, 12" o.c.	EverGuard Freedom TPO/ self adhered	-45.0
S-3.	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/5 screws or structural concrete	Min. 2" EnergyGuard RA EnergyGuard RN or H-Shield	See Note 2	1 per 1.6 ft ²	Min. 0.25" SECUROCK	OlyBond 500 or TITESET, 12" o.c.	EverGuard Freedom TPO/ self adhered	-60.0
S-4.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 1.5" EnergyGuard	See Note 2	1 per 2 ft ²	One or more layers of Base Insulation or min. 0.5" thick DensDeck	OlyBond 500 or TITESET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0
S-5.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 0.5" DensDeck	See Note 2	1 per 2 ft ²	One or more layers, min. 1.5" EnergyGuard	OlyBond 500 or TITESET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0
S-6.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min 2" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	See Note 2	1 per 4 ft ²	Min. 0.25" SECUROCK	OlyBond 500 or TITESET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-45.0
S-7.	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws or structural concrete	Min. 2" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	See Note 2	1 per 1.33 ft ²	Min. 0.25" SECUROCK	OlyBond 500 or TITESET, 12" o.c.	EverGuard TPO / EverGuard TPO # 1121 Bonding Adhesive	-60.0

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

System No.	Deck (See Note 1)	Thermal Barrier			Vapor Barrier / Temp Roof	Base Insulation		Top Insulation		Roof Cover / Adhesive	Max. Design Pressure (psf)
		Type	Fast.	Attach		Type	Attach	Type	Attach		
S-8.	Min. 22 ga., Type B, Grade 33 steel	Min. 0.5" SECUROCK	See Note 2	1 per 4 ft ²	Min. 2-ply asphalt BUR	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	HA or OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	HA or OlyBond 500, 12" o.c.	EverGuard Freedom TPO/ self adhered	-37.5
S-9.	Min. 22 ga., Type B, Grade 33 steel	Min. 0.5" SECUROCK	See Note 2	1 per 4 ft ²	Min. 2-ply asphalt BUR	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	HA or OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	HA or OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO # 1121 Bonding Adhesive	-37.5

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

System No.	Deck (See Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover / Adhesive	Max. Design Pressure (psf)
			Type	Fasteners	Attach		
EVERGUARD FREEDOM TPO							
S-10.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25" DensDeck Prime	See Note 2 (#14 HD only)	1 per 1.8 ft ²	EverGuard Freedom TPO	-37.5
S-11.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25" DensDeck DuraGuard Roof Board	See Note 2	1 per 2.7 ft ²	EverGuard Freedom TPO	-45.0
S-12.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or EnergyGuard Ultra	See Note 2	1 per 3.2 ft ²	EverGuard Freedom TPO	-45.0
S-13.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or EnergyGuard Ultra	See Note 2	1 per 1.3 ft ²	EverGuard Freedom TPO	-52.5
S-14.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or EnergyGuard Ultra	See Note 2 (#14 only)	1 per 2 ft ²	EverGuard Freedom TPO	-52.5
EVERGUARD TPO / EVERGUARD TPO #1121 OR EVERGUARD H2O BONDING ADHESIVE							
S-15.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.5" EnergyGuard HD Fiberboard, GAFTEMP HD Fiberboard, or Structodek HD Fiberboard	See Note 2	1 per 2 ft ²	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-30.0
S-16.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	See Note 2	1 per 2 ft ²	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0
S-17.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	See Note 2	1 per 4 ft ²	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0
S-18.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25" Dens Deck Prime	See Note 2	1 per 2.13 ft ²	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-37.5
S-19.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.5" Dens Deck Prime	See Note 2	1 per 3.2 ft ²	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0

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

System No.	Deck (See Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover / Adhesive	Max. Design Pressure (psf)
			Type	Fasteners	Attach		
S-20.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.625" Dens Deck Prime	See Note 2	1 per 4 ft ²	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0
S-21.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 7/16" OSB	Drill-Tec XHD with Drill-Tec 3" Metal Plates.	1 per 4 ft ²	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0
S-22.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 7/16" OSB	See Note 2	1 per 2 ft ²	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0
EVERGUARD TPO / EVERGUARD TPO #1121 BONDING ADHESIVE							
S-23.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25" SECUROCK	See Note 2	1 per 2.67 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-37.5
S-24.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.5" SECUROCK	See Note 2	1 per 4 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-37.5
S-25.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25" SECUROCK	See Note 2	1 per 2 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-45.0
S-26.	Min. 22 ga., Type B, Grade 33 steel	(Optional) One or more layers, any combination	Min. 1.5" EnergyGuard RA or EnergyGuard Ultra	See Note 2	1 per 2 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-45.0
S-27.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard Ultra	See Note 2	1 per 4 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-45.0
S-28.	Min. 22 ga., Type B, Grade 80 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.625" SECUROCK	See Note 2 (#14 only)	1 per 4 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-82.5
S-29.	Min. 22 ga., Type B, Grade 80 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" ACFoam IV	TruFast HD with MP3	1 per 2 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-75.0
S-30.	Min. 22 ga., Type B, Grade 80 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.5" SECUROCK	See Note 2 (#14 only)	1 per 2 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-105.0
S-31.	Min. 22 ga., Type B, Grade 80 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" ACFoam IV	TruFast HD with MP3	1 per 1.33 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-120.0

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

System No.	Deck (See Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover / Adhesive	Max. Design Pressure (psf)
			Type	Fasteners	Attach		
S-32.	Min. 22 ga., Type B, Grade 80 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" ACFoam IV	TruFast HD with MP3	1 per 1 ft ²	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-172.5
EVERGUARD TPO / EVERGUARD H2O BONDING ADHESIVE							
S-33.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 1.5" EnergyGuard Ultra	See Note 2	1 per 2 ft ²	EverGuard TPO / EverGuard H2O Bonding Adhesive	-37.5
S-34.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard Ultra	See Note 2	1 per 4 ft ²	EverGuard TPO / EverGuard H2O Bonding Adhesive	-37.5
S-35.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 1.5" EnergyGuard	See Note 2	1 per 2.67 ft ²	EverGuard TPO / EverGuard H2O Bonding Adhesive	-45.0
TRIPOSITE ROOFING SYSTEM							
S-36.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard Ultra	See Note 2	1 per 3.2 ft ²	Triposite System / See Note 16	-45.0
S-37.	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard Ultra	See Note 2	1 per 2 ft ²	Triposite System / See Note 16	-60.0
S-38.	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws or structural concrete	(Optional) One or more layers, any combination	Min. 2" EnergyGuard Ultra	See Note 2	1 per 1.45 ft ²	Triposite System / See Note 16	-75.0

TABLE 2C: NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER - STEEL DECKS
SYSTEM TYPE D: MECHANICALLY ATTACHED ROOF COVER

System No.	Deck (See Note 1)	Insulation		Roof Cover			Max. Design Pressure (psf)
		Type	Attach	Membrane	Fasteners	Attachment	
S-39.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2 3/8" Barbed XHD Plates	Fastened 12" o.c. within 5" wide laps spaced 114.5" o.c. and sealed with a 1.75" heat weld.	-30.0
S-40.	Min. 22 ga., type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2-3/8" XHD Plates	Fastened 12" o.c. within 6" wide laps spaced 90" o.c. and sealed with a 1.5" heat weld.	-30.0
S-41.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2" Double Barbed XHD Plates	Fastened 12" o.c. within 5" wide laps spaced 115" o.c. and sealed with a 1.5" heat weld.	-30.0
S-42.	Min. 22 ga., type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec SXHD fasteners with Drill-Tec 2-3/4" Barbed SXHD Plates	Fastened 12" o.c. within 6" wide laps spaced 114" o.c. and sealed with a 1.5" heat weld.	-30.0
S-43.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec SXHD fasteners with Drill-Tec 2-3/4" Barbed SXHD Plates	Fastened 18" o.c. within 6" wide laps spaced 90" o.c. and sealed with a 1.75" heat weld.	-30.0
S-44.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2 3/8" Barbed XHD Plates	Fastened 12" o.c. within 5" wide laps spaced 115" o.c. and sealed with a 1.5" heat weld.	-37.5
S-45.	Min. 22 ga., type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2 3/8" XHD Plates	Fastened 6" o.c. within 6" wide laps spaced 114" o.c. and sealed with a 1.5" heat weld.	-37.5
S-46.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard Steep Slope TPO	Drill-Tec XHD or SXHD with Drill-Tec 2 3/4" Barbed SXHD Plates	Fastened 12" o.c. within 6" wide laps spaced 114" o.c. and sealed with a 1.75" heat weld.	-37.5
S-47.	Min. 22 ga., type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec SXHD fasteners with Drill-Tec 2 3/4" Barbed SXHD Plates	Fastened 12" o.c. within 6" wide laps spaced 90" o.c. and sealed with a 1.5" heat weld.	-37.5
S-48.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2 3/8" Barbed XHD Plates	Fastened 6" o.c. within 5" wide laps spaced 114.5" o.c. and sealed with a 1.75" heat weld.	-45.0
S-49.	Min. 22 ga., type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2 3/8" XHD Plates	Fastened 6" o.c. within 6" wide laps spaced 90" o.c. and sealed with a 1.5" heat weld.	-45.0

TABLE 2C: NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER - STEEL DECKS
SYSTEM TYPE D: MECHANICALLY ATTACHED ROOF COVER

System No.	Deck (See Note 1)	Insulation		Roof Cover			Max. Design Pressure (psf)
		Type	Attach	Membrane	Fasteners	Attachment	
S-50.	Min. 22 ga., type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2 3/8" XHD Plates; or Drill-Tec SXHD with Drill-Tec 2-3/4" Barbed SXHD Plates	Fastened 12" o.c. within 6" wide laps spaced 54" o.c. and sealed with a 1.5" heat weld.	-45.0
S-51.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec SXHD with Drill-Tec 2 3/4" Barbed SXHD Plates	Fastened 12" o.c. within 5.5" wide laps spaced 114.5" o.c. and sealed with a 1.5" heat weld.	-45.0
S-52.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO FB Ultra	EverGuard XHD with EverGuard 2-3/8" XHD Plates	Fastened 6" o.c. within 6" wide laps spaced 112.5" o.c. and sealed with a 1-5/8" heat weld.	-52.5
S-53.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2 3/8" Barbed XHD Plates or Drill-Tec 2" Double Barbed XHD Plates	Fastened 6" o.c. within 5" wide laps spaced 115" o.c. and sealed with a 1.5" heat weld.	-52.5
S-54.	Min. 22 ga., type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2-3/8" XHD Plates	Fastened 6" o.c. within 6" wide laps spaced 54" o.c. and sealed with a 1.5" heat weld.	-60.0
S-55.	Min. 22 ga., type B, Grade 80 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec XHD with Drill-Tec 2 3/4" Barbed SXHD Plates	Fastened 6" o.c. within 6" wide laps spaced 114" o.c. and sealed with a 1.5" heat weld.	-60.0
S-56.	Min. 22 ga., type B, Grade 33 steel at max. 6 ft spans attached 6" o.c. with Traxx/4 or 5 screws	One or more layers, any combination, min. 1.5"	Prelim. attach	EverGuard TPO	Drill-Tec SXHD with Drill-Tec 2-3/4" Barbed SXHD Plates	Fastened 6" o.c. within 6" wide laps spaced 114" o.c. and sealed with a 1.875" heat weld.	-60.0
S-57.	Min. 18 ga., type B, Grade 33 steel at max. 7 ft spans attached 6" o.c. with 5/8" puddle welds	One or more layers, min. 1.5" EnergyGuard	Five (5) fasteners /plates per 4 x 4 ft board	EverGuard TPO	Drill-Tec XHD Fasteners with Drill-Tec 2" Double Barbed XHD Plates	Fastened 6" o.c. within 6" wide laps spaced 114" o.c. and sealed with a 1.5" heat weld.	-90.0

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

System No.	Deck (See Note 1)	Vapor Barrier	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
			Type	Attach	Type	Attach		
EVERGUARD FREEDOM TPO								
C-1.	Min. 3,000 psi structural concrete	(Optional) See Note A below	(Optional) Min. 1.5" EnergyGuard, EnergyGuard RA or EnergyGuard Ultra	OlyBond 500, 12" o.c.	Min. 0.5" EnergyGuard High Density Fiberboard Roof Insulation	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-50.0
C-2.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-142.5
C-3.	Min. 3,000 psi structural concrete	(Optional) See Note A below	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	None	-	EverGuard Freedom TPO	-230.0
C-4.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-382.5
C-5.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard	TITSESET, 12" o.c.	(Optional) Additional layer of base insulation	TITSESET, 12" o.c.	EverGuard Freedom TPO	-142.5
C-6.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	TITSESET, 12" o.c.	Min. 0.25" SECUROCK	TITSESET, 12" o.c.	EverGuard Freedom TPO	-382.5
EVERGUARD TPO / EVERGUARD TPO #1121 BONDING ADHESIVE								
C-7.	Min. 2,500 psi concrete	(Optional) Min. 1 ply GAFGLAS Ply 4 or GAFGLAS FlexPly6 in Hot Asphalt	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or H-Shield	Hot Asphalt	Min. 0.5" EnergyGuard HD Fiberboard or GAFTEMP HD Fiberboard	Hot Asphalt	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-30.0
C-8.	Min. 2,500 psi concrete	(Optional) Min. 1 ply GAFGLAS Ply 4 or GAFGLAS FlexPly6 in Hot Asphalt	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or H-Shield	Hot Asphalt	(Optional) Min. 0.25" DensDeck Prime or min. 7/16" OSB	Hot asphalt	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-45.0
C-9.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 2.0", min. 1.0 pcf, ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-120.0
C-10.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard or Min. 10" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-130.0

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

System No.	Deck (See Note 1)	Vapor Barrier	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
			Type	Attach	Type	Attach		
C-11.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 2" EnergyGuard RA, EnergyGuard RN or H-Shield	OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-247.5
C-12.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-270.0
C-13.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" thick, min. 1.25 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck Prime or SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-87.5
C-14.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-130.0
C-15.	Min. 2,500 psi concrete	(Optional) See Note A below	One or more layers, min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-180.0
C-16.	Min. 2,500 psi concrete	(Optional) See Note A below	One or more layers, min. 1.5" thick, min. 2.0 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-240.0
C-17.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 2" EnergyGuard RA, EnergyGuard RN or H-Shield	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-247.5
C-18.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-270.0
EVERGUARD TPO / EVERGUARD H2O BONDING ADHESIVE								
C-19.	Min. 2,500 psi concrete	(Optional) Min. 1 ply GAFGLAS Ply 4 or GAFGLAS FlexPly6 in Hot Asphalt	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or H-Shield	Hot Asphalt	Min. 0.5" EnergyGuard HD Fiberboard or GAFTEMP HD Fiberboard	Hot Asphalt	EverGuard TPO / EverGuard H2O Bonding Adhesive	-30.0
C-20.	Min. 2,500 psi concrete	(Optional) Min. 1 ply GAFGLAS Ply 4 or GAFGLAS FlexPly6 in Hot Asphalt	Min. 1.5" EnergyGuard Ultra	Hot Asphalt	(Optional) Additional layers of base insulation	Hot asphalt	EverGuard TPO / EverGuard H2O Bonding Adhesive	-37.5

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

System No.	Deck (See Note 1)	Vapor Barrier	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
			Type	Attach	Type	Attach		
C-21.	Min. 2,500 psi concrete	(Optional) Min. 1 ply GAFGLAS Ply 4 or GAFGLAS FlexPly6 in Hot Asphalt	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or H-Shield	Hot Asphalt	(Optional) Min. 0.25" DensDeck Prime or min. 7/16" OSB	Hot asphalt	EverGuard TPO / EverGuard H2O Bonding Adhesive	-45.0
C-22.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard Ultra	OlyBond 500, 12" o.c.	(Optional) Additional layers of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-37.5
C-23.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 2.0", min. 1.0 pcf, ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-120.0
C-24.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard or Min. 10" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-130.0
C-25.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-270.0
C-26.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" thick, min. 1.25 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck, DensDeck Prime	TITASET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-87.5
C-27.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITASET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-130.0
C-28.	Min. 2,500 psi concrete	(Optional) See Note A below	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-270.0
TRIPOSITE ROOFING SYSTEM								
C-29.	Min. 2,500 psi concrete	None	Min. 1.5" EnergyGuard Ultra	Hot Asphalt	(Optional) Additional layers of base insulation	Hot asphalt	Triposite System. See Note 16	-172.5

A. The following are options for installation of an optional vapor barrier / temporary roof on the concrete deck prior to insulation placement. If vapor barrier / temp roof is installed, concrete deck shall be primed with ASTM D41 primer prior to its installation. Maximum design pressure (MDP) shall be the lesser of that for the system in Table 3A, and that for the vapor barrier / insulation adhesive noted below.

1. For use with OlyBond 500 or SpotShot applied insulation:
 - One or two plies asphalt-applied GAF base and/or ply sheet: MDP -352.5 psf
 - Ruberoid 20 adhered in Matrix 102 in full coverage: MDP -202.5 psf
 - Ruberoid Torch Smooth heat welded: MDP -142.5 psf
 - Ruberoid Heat Weld Smooth heat welded: MDP -232.5 psf
2. For use with TITASET applied insulation:
 - One or two plies asphalt-applied GAF base and/or ply sheet: MDP -262.5 psf
 - Optional asphalt-applied GAF base or ply sheet or base membrane with asphalt-applied GAF cap membrane: MDP -270.0 psf
 - Optional asphalt-applied GAF base or ply sheet or base membrane or heat-welded GAF base membrane with heat-welded GAF cap membrane: MDP -169.0 psf
 - Optional self-adhering Liberty base membrane with Liberty cap membrane: MDP – 250.0 psf

TABLE 3B: NEW CONSTRUCTION or REROOF (Tear-Off) – CONCRETE DECKS			
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER			
System No.	Deck (See Note 1)	Roof Cover / Adhesive	Max. Design Pressure (psf)
C-30.	Min. 3,000 psi structural concrete primed with GAF Top-Coat Surface Seal SB	EverGuard Freedom TPO	-410.0
C-31.	Min. 2,500 psi structural concrete	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-135.0

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

System No.	Deck (See Note 1)		Base Insulation Layer		Coverboard		Roof Cover / Adhesive	Max. Design Pressure (psf)
	Struct Deck	LWC Deck (See Note 1)	Type	Attachment	Type	Attachment		
EVERGUARD FREEDOM TPO								
LWC-1.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO Freedom	-142.5
LWC-2.	Concrete	Min. 200 psi, min. 2" thick Elastizell	(Optional) Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-225.0
LWC-3.	Concrete	Min. 200 psi, min. 2" thick Celcore, Elastizell or Mearlcrete	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO Freedom	-142.5
LWC-4.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard Freedom TPO	-180.0
LWC-5.	Concrete	Min. 200 psi, min. 2" thick Celcore	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard Freedom TPO	-222.5
LWC-6.	Concrete	Min. 200 psi, min. 2" thick Mearlcrete	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard Freedom TPO	-240.0
EVERGUARD TPO / EVERGUARD TPO #1121 BONDING ADHESIVE								
LWC-7.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 2.0", min. 1.0 pcf, ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck, DensDeck Prime or SECUROCK	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-120.0
LWC-8.	Concrete	Min. 200 psi, min. 2" thick Elastizell	(Optional) Min. 1.5" EnergyGuard or Min. 1.0" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-130.0
LWC-9.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-180.0
LWC-10.	Concrete	Min. 200 psi, min. 2" thick Elastizell	(Optional) Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-180.0

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

System No.	Deck (See Note 1)		Base Insulation Layer		Coverboard		Roof Cover / Adhesive	Max. Design Pressure (psf)
	Struct Deck	LWC Deck (See Note 1)	Type	Attachment	Type	Attachment		
LWC-11.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.0" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-225.0
LWC-12.	Concrete	Min. 200 psi, min. 2" thick Celcore, Elastizell or Mearlcrete	Min. 1.5" thick, min. 1.25 pcf density ASTM C578 expanded or extruded EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck, DensDeck Prime or SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-87.5
LWC-13.	Concrete	Min. 200 psi, min. 2" thick Celcore, Elastizell or Mearlcrete	(Optional) Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf density ASTM C578 expanded or extruded EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-130.0
LWC-14.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-180.0
LWC-15.	Concrete	Min. 200 psi, min. 2" thick Elastizell	(Optional) Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf density ASTM C578 expanded or extruded EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-180.0
LWC-16.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-222.5
LWC-17.	Concrete	Min. 200 psi, min. 2" thick Celcore	(Optional) Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 2.0 pcf density ASTM C578 expanded or extruded EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-222.5
LWC-18.	Concrete	Min. 200 psi, min. 2" thick Mearlcrete	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-240.0
LWC-19.	Concrete	Min. 200 psi, min. 2" thick Mearlcrete	(Optional) Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 2.0 pcf density ASTM C578 expanded or extruded EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-240.0

TABLE 4A: NEW CONSTRUCTION or REROOF (Tear-Off) – LIGHTWEIGHT CONCRETE DECKS

SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (See Note 1)		Base Insulation Layer		Coverboard		Roof Cover / Adhesive	Max. Design Pressure (psf)
	Roof Deck	LWC Deck (See Note 1)	Type	Attachment	Type	Attachment		
EVERGUARD TPO / EVERGUARD H2O BONDING ADHESIVE								
LWC-20.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 2.0", min. 1.0 pcf, ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-120.0
LWC-21.	Concrete	Min. 200 psi, min. 2" thick Elastizell	(Optional) Min. 1.5" EnergyGuard or Min. 1.0" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-130.0
LWC-22.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-180.0
LWC-23.	Concrete	Min. 200 psi, min. 2" thick Celcore, Elastizell or Mearlcrete	Min. 1.5" thick, min. 1.25 pcf density ASTM C578 expanded or extruded EPS board	TITSESET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITSESET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-87.5
LWC-24.	Concrete	Min. 200 psi, min. 2" thick Celcore, Elastizell or Mearlcrete	(Optional) Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf density ASTM C578 expanded or extruded EPS board	TITSESET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITSESET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-130.0
LWC-25.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.5" EnergyGuard	TITSESET, 12" o.c.	(Optional) Additional layer of base insulation	TITSESET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-180.0
LWC-26.	Concrete	Min. 200 psi, min. 2" thick Elastizell	Min. 1.5" EnergyGuard	TITSESET, 12" o.c.	(Optional) Additional layer of base insulation	TITSESET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-222.5
LWC-27.	Concrete	Min. 200 psi, min. 2" thick Mearlcrete	Min. 1.5" EnergyGuard	TITSESET, 12" o.c.	(Optional) Additional layer of base insulation	TITSESET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-240.0

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

System No.	Roof Deck (See Note 1)		Base Sheet			Roof Cover / Adhesive	Max. Design Pressure (psf)
	Structural Deck	LWC (See Note 1)	Type	Fasteners	Attach		
LWC-28.	Min. 22 ga., type B, Grade 33 vented steel at max. 6 ft spans attached 6" o.c. with 5/8" puddle welds.	Min. 250-300 psi, min. 2" thick cellular lightweight concrete	GAF STORMSAFE	Drill-Tec #12 screws and 3" Drill-Tec AccuTrac Plates	12" o.c. at the 4" lap and 12" o.c. in three, equally spaced, staggered rows in the center of the sheet	EverGuard Freedom TPO	-45.0
LWC-29.	Min. 22 ga., type B, Grade 33 vented steel at max. 5 ft spans attached 6" o.c. with puddle welds & washers or Traxx/4 or 5 screws	Min. 200 psi, min. 2" thick Celcore	Tri-Flex 30	Drill-Tec CR Base Sheet Fasteners	9" o.c. in the 4" lap and 9" o.c. in three, equally spaced, staggered rows in the center of the sheet	EverGuard Freedom TPO	-52.5

TABLE 4C: NEW CONSTRUCTION or REROOF (Tear-Off) – LIGHTWEIGHT CONCRETE DECKS
SYSTEM TYPE F: BONDED ROOF COVER

System No.	Roof Deck (See Note 1)			Roof Cover / Adhesive	Max. Design Pressure (psf)
	Structural Deck	LWC (See Note 1)	Primer / Treatment		
LWC-30.	3,000 psi structural concrete	Min. 250 - 300 psi, min. 2" thick Celcore	EverGuard H2O Bonding Adhesive	EverGuard Freedom TPO	-95.0
LWC-31.	3,000 psi structural concrete	Min. 250 - 300 psi, min. 2" thick Concrecel	Top Coat Surface Seal SB	EverGuard Freedom TPO	-150.0
LWC-32.	3,000 psi structural concrete, GAF SBS Torch Grade granulated modified cap, heat welded to deck	Min. 300 psi, min. 2" thick LWC Products Lightweight Insulating Concrete	EverGuard H2O Bonding Adhesive	EverGuard Freedom TPO	-172.5
LWC-33.	3,000 psi structural concrete	Min. 250 - 300 psi, min. 2" thick Celcore	Top Coat Surface Seal SB	EverGuard Freedom TPO	-217.5
LWC-34.	2,500 psi structural concrete	Min. 300 psi, min. 2" thick Mearlcrete cellular LWC	Top Coat Surface Seal SB	EverGuard Freedom TPO	-300.0
LWC-35.	3,000 psi structural concrete	Min. 300 psi, min. 2" thick LWC Products Lightweight Insulating Concrete	Top Coat Surface Seal SB	EverGuard Freedom TPO	-325.0
LWC-36.	3,000 psi structural concrete	Min. 250 - 300 psi, min. 2" thick Elastizell	Top Coat Surface Seal SB	EverGuard Freedom TPO	-382.5
LWC-37.	3,000 psi structural concrete	Min. 200 psi, min. 2" thick Celcore	None	EverGuard TPO FB Ultra / EverGuard TPO #1121 Bonding Adhesive	-67.5
LWC-38.	Min. 22 ga., type B, Grade 33 vented steel at max. 5 ft spans attached 6" o.c. with puddle welds & washers or Traxx/4 or 5 screws	Min. 200 psi, min. 2" thick Celcore	None	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-52.5
LWC-39.	3,000 psi structural concrete	Min. 200 psi, min. 2" thick Elastizell	None	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-75.0
LWC-40.	3,000 psi structural concrete, GAF SBS Torch Grade granulated modified cap, heat welded to deck	Min. 300 psi, min. 2" thick LWC Products Lightweight Insulating Concrete	EverGuard H2O Bonding Adhesive	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-182.5
LWC-41.	3,000 psi structural concrete	Min. 300 psi, min. 2" thick LWC Products Lightweight Insulating Concrete	EverGuard H2O Bonding Adhesive	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-195.0
LWC-42.	3,000 psi structural concrete	Min. 250 - 300 psi, min. 2" thick Elastizell	EverGuard H2O Bonding Adhesive	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-260.0
LWC-43.	3,000 psi structural concrete	Min. 200 psi, min. 2" thick Celcore	None	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-277.5
LWC-44.	3,000 psi structural concrete	Min. 250 - 300 psi, min. 2" thick Concrecel	EverGuard H2O Bonding Adhesive	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-382.5
LWC-45.	2,500 psi structural concrete	Min. 300 psi, min. 2" thick Mearlcrete cellular LWC	None	EverGuard TPO FB Ultra / EverGuard H2O Bonding Adhesive	-472.5

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

System No.	Deck (See Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
		Type	Attach	Type	Attach		
CWF-1.	Min. 2" Tectum Plank or Tectum LS Plank	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layers base insulation, flat or tapered	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-45.0
CWF-2.	Min. 2" Tectum Plank or Tectum LS Plank	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layers base insulation, flat or tapered	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-45.0
CWF-3.	Min. 2" Tectum Plank or Tectum LS Plank or Fibroplank	Min. 1.5" EnergyGuard	TITSEET, 12" o.c.	(Optional) Additional layers base insulation, flat or tapered	TITSEET, 12" o.c.	EverGuard Freedom TPO	-52.5
CWF-4.	Min. 2" Tectum Plank or Tectum LS Plank or Fibroplank	Min. 1.5" EnergyGuard	TITSEET, 12" o.c.	(Optional) Additional layers base insulation, flat or tapered	TITSEET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 or EverGuard H2O Bonding Adhesive	-52.5

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

System No.	Deck (See Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover	Max. Design Pressure (psf)
		Type	Attach	Type	Attach		
EVERGUARD FREEDOM TPO							
G-1.	Existing poured gypsum or gypsum plank	(Optional) Min. 1.5" EnergyGuard, EnergyGuard RA or EnergyGuard Ultra	OlyBond 500, 12" o.c.	Min. 0.5" EnergyGuard High Density Fiberboard Roof Insulation	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-50.0
G-2.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-135.0
G-3.	Existing poured gypsum or gypsum plank	(Optional) Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-135.0
G-4.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard Freedom TPO	-142.5
G-5.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard Freedom TPO	-257.5
EVERGUARD TPO / EVERGUARD TPO #1121 BONDING ADHESIVE							
G-6.	Existing poured gypsum or gypsum plank	Min. 0.5" EnergyGuard HD Fiberboard or GAFTEMP HD Fiberboard	OlyBond 500, 12" o.c.	None	-	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-215.0
G-7.	Existing poured gypsum or gypsum plank	Min. 2.0", min. 1.0 pcf, ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-120.0
G-8.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard or Min. 10" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-130.0
G-9.	Existing poured gypsum or gypsum plank	Min. 2" EnergyGuard RA, EnergyGuard RN or H-Shield	OlyBond 500, 12" o.c.	Min. 0.25" SECUROCK	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-135.0
G-10.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-135.0
G-11.	Existing poured gypsum or gypsum plank	Min. 1.5" thick, min. 1.25 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck Prime or SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-87.5
G-12.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-130.0
G-13.	Existing poured gypsum or gypsum plank	One or more layers, min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-180.0

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

System No.	Deck (See Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover	Max. Design Pressure (psf)
		Type	Attach	Type	Attach		
G-14.	Existing poured gypsum or gypsum plank	One or more layers, min. 1.5" thick, min. 2.0 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-240.0
G-15.	Existing poured gypsum or gypsum plank	Min. 2" EnergyGuard RA, EnergyGuard RN or H-Shield	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-247.5
G-16.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-257.5
EVERGUARD TPO / EVERGUARD H2O BONDING ADHESIVE							
G-17.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard Ultra	OlyBond 500, 12" o.c.	(Optional) Additional layers of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-37.5
G-18.	Existing poured gypsum or gypsum plank	Min. 2.0", min. 1.0 pcf, ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-120.0
G-19.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard or Min. 10" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-130.0
G-20.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-135.0
G-21.	Existing poured gypsum or gypsum plank	Min. 1.5" thick, min. 1.25 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck, DensDeck Prime	TITASET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-87.5
G-22.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITASET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-130.0
G-23.	Existing poured gypsum or gypsum plank	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-257.5

TABLE 6B: REROOF (Tear-Off) – GYPSUM DECKS
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

System No.	Roof Deck	Primer / Treatment	Roof Cover / Adhesive	Max. Design Pressure (psf)
G-24.	Existing poured gypsum or gypsum plank	Top Coat Surface Seal SB	EverGuard Freedom TPO	-490.0

TABLE 7A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Substrate (See Note 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
		Type	Attach	Type	Attach		
EVERGUARD FREEDOM TPO							
R-1.	Existing asphalt BUR or mineral surface cap sheet	(Optional) Min. 1.5" EnergyGuard, EnergyGuard RA or EnergyGuard Ultra	OlyBond 500, 12" o.c.	Min. 0.5" EnergyGuard High Density Fiberboard Roof Insulation	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-50.0
R-2.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-120.0
R-3.	Existing asphalt BUR or mineral surface cap sheet	(Optional) Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	OlyBond 500, 12" o.c.	Min. 0.25" SECURROCK	OlyBond 500, 12" o.c.	EverGuard Freedom TPO	-120.0
R-4.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard	TITSESET, 12" o.c.	(Optional) Additional layer of base insulation	TITSESET, 12" o.c.	EverGuard Freedom TPO	-142.5
R-5.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN or H-Shield	TITSESET, 12" o.c.	Min. 0.25" SECURROCK	TITSESET, 12" o.c.	EverGuard Freedom TPO	-262.5
EVERGUARD TPO / EVERGUARD TPO #1121 BONDING ADHESIVE							
R-6.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or H-Shield	Hot Asphalt	Min. 0.5" EnergyGuard HD Fiberboard or GAFTEMP HD Fiberboard	Hot Asphalt	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-30.0
R-7.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or H-Shield	Hot Asphalt	(Optional) Min. 0.25" DensDeck Prime or min. 7/16" OSB	Hot asphalt	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-45.0
R-8.	Existing asphalt BUR or mineral surface cap sheet	Min. 2.0", min. 1.0 pcf, ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-120.0
R-9.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard or Min. 10" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-120.0
R-10.	Existing asphalt BUR or mineral surface cap sheet	Min. 2" EnergyGuard RA, EnergyGuard RN or H-Shield	OlyBond 500, 12" o.c.	Min. 0.25" SECURROCK	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-120.0
R-11.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-120.0

TABLE 7A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Substrate (See Note 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
		Type	Attach	Type	Attach		
R-12.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" thick, min. 1.25 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck Prime or SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-87.5
R-13.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-130.0
R-14.	Existing asphalt BUR or mineral surface cap sheet	One or more layers, min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-180.0
R-15.	Existing asphalt BUR or mineral surface cap sheet	One or more layers, min. 1.5" thick, min. 2.0 pcf ASTM C578 EPS board	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-240.0
R-16.	Existing asphalt BUR or mineral surface cap sheet	Min. 2" EnergyGuard RA, EnergyGuard RN or H-Shield	TITASET, 12" o.c.	Min. 0.25" SECUROCK	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-247.5
R-17.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard	TITASET, 12" o.c.	(Optional) Additional layer of base insulation	TITASET, 12" o.c.	EverGuard TPO / EverGuard TPO #1121 Bonding Adhesive	-262.5
EVERGUARD TPO / EVERGUARD H2O BONDING ADHESIVE							
R-18.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or H-Shield	Hot Asphalt	Min. 0.5" EnergyGuard HD Fiberboard or GAFTEMP HD Fiberboard	Hot Asphalt	EverGuard TPO / EverGuard H2O Bonding Adhesive	-30.0
R-19.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard Ultra	Hot Asphalt	(Optional) Additional layers of base insulation	Hot asphalt	EverGuard TPO / EverGuard H2O Bonding Adhesive	-37.5
R-20.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard, EnergyGuard RA, EnergyGuard RN, or H-Shield	Hot Asphalt	(Optional) Min. 0.25" DensDeck Prime or min. 7/16" OSB	Hot asphalt	EverGuard TPO / EverGuard H2O Bonding Adhesive	-45.0
R-21.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard Ultra	OlyBond 500, 12" o.c.	(Optional) Additional layers of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-37.5
R-22.	Existing asphalt BUR or mineral surface cap sheet	Min. 2.0", min. 1.0 pcf, ASTM C578 expanded polystyrene	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-120.0
R-23.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard or Min. 10" Foamular 250	OlyBond 500, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-120.0

TABLE 7A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Substrate (See Note 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive	Max. Design Pressure (psf)
		Type	Attach	Type	Attach		
R-24.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard	OlyBond 500, 12" o.c.	(Optional) Additional layer of base insulation	OlyBond 500, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-120.0
R-25.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" thick, min. 1.25 pcf ASTM C578 EPS board	TITSESET, 12" o.c.	Min. 0.25" DensDeck, DensDeck Prime	TITSESET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-87.5
R-26.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard or Min. 1.5" thick, min. 1.5 pcf ASTM C578 EPS board	TITSESET, 12" o.c.	Min. 0.25" DensDeck or DensDeck Prime	TITSESET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-130.0
R-27.	Existing asphalt BUR or mineral surface cap sheet	Min. 1.5" EnergyGuard	TITSESET, 12" o.c.	(Optional) Additional layer of base insulation	TITSESET, 12" o.c.	EverGuard TPO / EverGuard H2O Bonding Adhesive	-262.5

TABLE 7B: RECOVER APPLICATIONS
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

System No.	Substrate (See Note 12)	Primer / Treatment	Roof Cover / Adhesive	Max. Design Pressure (psf)
R-28.	Existing asphaltic granule surface cap sheet	None	EverGuard TPO FB Ultra / Hot Asphalt	-405.0