



NEMO|etc.

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ENGINEER

TEST

CONSULT

P.E. EVALUATION REPORT (PEER)

Carlisle SynTec Systems

P.O. Box 7000
Carlisle, PA 17013
(717) 245-7264

PEER-CRL-001.A.R9

FL1601-R15 (NON-HVHZ)

Date of Issuance: 11/28/2011

Revision 9: 09/24/2024

SCOPE:

This P.E. Evaluation Report (henceforth 'PEER') is issued under **F.A.C. Rule 61G20-3** and the applicable rules and regulations governing the use of construction materials in the State of Florida, and the [Third-Party Evaluation Report](#) acceptance by the Texas Department of Insurance. The documentation submitted has been reviewed by Robert Nieminen, P.E. for compliance with the **8th Edition (2023) Florida Building Code and 2018 International Building Code** [sections noted herein](#).

DESCRIPTION: Carlisle EPDM Single Ply Roof Systems (NON-HVHZ)

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

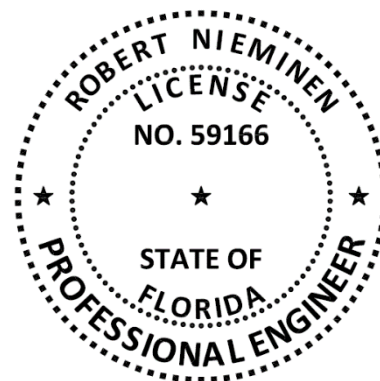
CONTINUED COMPLIANCE: This PEER is valid until such time as the named product(s) changes, the referenced Quality Assurance or production facility location(s) changes, or Code provisions that relate to the product(s) change. Acceptance of our PEERs by the named client constitutes agreement to notify NEMO 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 PEER relative to updated Code requirements with each Code Cycle.

ADVERTISEMENT: "NEMO P.E. Evaluated" may be displayed in advertising literature. If any portion of the PEER is displayed, then it shall be done in its entirety.

INSPECTION: Upon request, a copy of this entire PEER 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 PEER consists of pages 1 through 5, plus 34-pages of Appendix.

Prepared by:



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 PEERs 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. Robert Nieminen, P.E. is also Registered in the State of Texas; PE-96420.
6. 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 PEER, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

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ROOFING SYSTEMS EVALUATION:

1. SCOPE:

Product Category: Roofing
Sub-Category: Single Ply Roof Systems
Product Approval Method: Method 1, Option D – Codified Material, Evaluation by Engineer
Compliance Statement: Carlisle EPDM Single Ply Roof Systems, as produced by Carlisle SynTec Systems, have demonstrated compliance with the following sections of the referenced Building Codes through testing in accordance with the following Standards. Compliance is subject to the [Installation Requirements](#) and [Limitations of Use](#) set forth herein.

2. STANDARDS:

CODE	SECTION	PROPERTY	STANDARD
2023 Florida Building Code	1504.3.1	Wind resistance	FM 4474
	1504.6	Physical properties	ASTM G155
	1504.7	Impact resistance	FM 4470, Section 4.6
	1507.11.2	Material standard	ASTM D6163, D6164
	1507.12.2	Material standard	ASTM D4637
	1523.6.2	Wind resistance	TAS 114
2018 International Building Code	1504.3.1	Wind resistance	FM 4474
	1504.6	Physical properties	ASTM G155
	1504.7	Impact resistance	FM 4470, Section 4.6
	1507.11.2	Material standard	ASTM D6163, D6164
	1507.12.2	Material standard	ASTM D4637

3. REFERENCES:

Entity	Examination	Reference	Date
ERD (TST6049)	ASTM D4637 & G155	CRL-SC10340.01.17-1C	01/04/2017
ERD (TST6049)	ASTM D4637 & G155	CRL-SC10340.01.17-1E	01/13/2017
NEMO (TST6049)	ASTM D4637	4s-CRL-19-SSTHS-02.E	06/12/2020
NEMO (TST6049)	ASTM D4637	4s-CRL-19-SSTHS-02.F	06/12/2020
NEMO (TST6049)	ASTM D4637	4s-CRL-19-SSTHS-02.D	06/24/2020
NEMO (TST6049)	ASTM D4637 & G155	4s-CRL-19-SSTHS-01.B	06/24/2020
NEMO (TST6049)	ASTM D4637 & G155	4s-CRL-22-SSTHS-01.A	02/21/2023
PRI CMT(TST5878)	ASTM D6163	1655T0009	01/21/2022
PRI CMT(TST5878)	ASTM D6164	165560010	01/21/2022
CTL (TST1577)	TAS 114	CTLA-105R	10/13/2008
CTL (TST1577)	TAS 114	CTLA-105R-1	10/13/2008
CTL (TST1577)	TAS 114	CTLA-105R-2	10/13/2008
CTL (TST1577)	TAS 114	CTLA-106R-2	10/16/2008
FM (TST1867)	FM 4470/4474	3B5A1.AM	04/28/1997
FM (TST1867)	FM 4470/4474	2Z2A8.AM	05/16/1997
FM (TST1867)	FM 4470/4474	2B2A1.AM	05/29/1997
FM (TST1867)	FM 4470/4474	3B8Q4.AM	06/04/1997
FM (TST1867)	FM 4470/4474	4B2A1.AM	06/11/1997
FM (TST1867)	FM 4470/4474	2Z3A9.AM	07/30/1997
FM (TST1867)	FM 4470/4474	1B7A5.AM	02/23/1998
FM (TST1867)	FM 4470/4474	4D9A6.AM	08/03/1998
FM (TST1867)	FM 4470/4474	2D6A6.AM	10/07/1998
FM (TST1867)	FM 4470/4474	3003326	04/12/1999
FM (TST1867)	FM 4470/4474	3000348	04/19/1999
FM (TST1867)	FM 4470/4474	1B7A4.AM	07/08/1999
FM (TST1867)	FM 4470/4474	3009502	12/21/2000
FM (TST1867)	FM 4470/4474	3012458	02/23/2002
FM (TST1867)	FM 4470/4474	3013584	06/27/2003
FM (TST1867)	FM 4470/4474	3014692	08/05/2003
FM (TST1867)	FM 4470/4474	3016162	11/25/2003
FM (TST1867)	FM 4470/4474	3020353	03/25/2004

Entity	Examination	Reference	Date
FM (TST1867)	FM 4470/4474	3016161	06/04/2004
FM (TST1867)	FM 4470/4474	3022181	09/01/2005
FM (TST1867)	FM 4470/4474	3022187	09/15/2005
FM (TST1867)	FM 4470/4474	3019897	10/07/2005
FM (TST1867)	FM 4470/4474	3024994	02/28/2006
FM (TST1867)	FM 4470/4474	3021941	03/20/2006
FM (TST1867)	FM 4470/4474	3024593	07/27/2006
FM (TST1867)	FM 4470/4474	3025930	08/30/2006
FM (TST1867)	FM 4470/4474	3022174	09/25/2006
FM (TST1867)	FM 4470/4474	3021235	06/01/2007
FM (TST1867)	FM 4470/4474	3026964	07/25/2007
FM (TST1867)	FM 4470/4474	3028441	10/16/2007
FM (TST1867)	FM 4470/4474	3031511	08/28/2008
FM (TST1867)	FM 4470/4474	797-04381-267	03/12/2009
FM (TST1867)	FM 4470/4474	3034066	04/14/2009
FM (TST1867)	FM 4470/4474	3034776	08/07/2009
FM (TST1867)	FM 4470/4474	3035794	08/07/2009
FM (TST1867)	FM 4470/4474	3034977	04/09/2010
FM (TST1867)	FM 4470/4474	3038140	08/04/2010
FM (TST1867)	FM 4470/4474	3041535	06/08/2011
FM (TST1867)	FM 4470/4474	3039340	06/24/2011
FM (TST1867)	FM 4470/4474	797-06605-267	07/06/2011
FM (TST1867)	FM 4470/4474	3043858	08/25/2011
FM (TST1867)	FM 4470/4474	3041797	10/13/2011
FM (TST1867)	FM 4470/4474	3039073	11/22/2011
FM (TST1867)	FM 4470/4474	3040260	02/27/2012
FM (TST1867)	FM 4470/4474	3043710	03/23/2012
FM (TST1867)	FM 4470/4474	3042075	10/23/2012
FM (TST1867)	FM 4470/FM 4474	3056745	09/28/2016
FM (TST1867)	FM 4474	3063373	07/23/2018
FM (TST1867)	FM 4474	PR451812	04/24/2020
FM (TST1867)	Criticality	PR463540 (data)	08/10/2022
FM (TST1867)	FM 4474	PR463540 (data x 3)	02/01/2023
UL, LLC (QUA9625)	Quality Control	Service Confirmation	07/06/2022

4. PRODUCT DESCRIPTION:

This PEER covers **Carlisle EPDM Single Ply Roof Systems** installed in accordance with **Carlisle SynTec Systems** published installation instructions and the [Limitations of Use](#) herein.

TABLE 1: EVALUATED MEMBRANES						
TYPE	PRODUCT		MATERIAL STANDARD			PLANT(s)
			REFERENCE	TYPE	GRADE	
ROOF COVER OR CAP PLY	Sure-Seal FR Nonreinforced	45, 60, 90	ASTM D4637	I	N/A	Carlisle, PA Greenville, IL
	Sure-White	60, 90	ASTM D4637	I	N/A	Carlisle, PA
	Sure-Tough	45, 60, 75	ASTM D4637	II	N/A	Carlisle, PA
	Sure-White Reinforced EPDM	60	ASTM D4637	II	N/A	Carlisle, PA
	Sure-Seal FleeceBACK 100, Sure-Seal FleeceBACK 115 and Sure-Seal FleeceBACK 145	45, 60, 90	ASTM D4637	III	N/A	Carlisle, PA
	Sure-Seal AFX 90 and Sure-Seal AFX 105	45, 60	ASTM D4637	III	N/A	Carlisle, PA
	Sure-White FleeceBACK 100, Sure-White FleeceBACK 115 and Sure-White FleeceBACK 145	45, 60, 90	ASTM D4637	III	N/A	Carlisle, PA

TABLE 1: EVALUATED MEMBRANES					
TYPE	PRODUCT	MATERIAL STANDARD			PLANT(s)
		REFERENCE	TYPE	GRADE	
VAPOR BARRIER MEMBRANES	SureMB 90 Base	ASTM D6163	I	S	TX
	SureMB 90TG Base	ASTM D6163	I	S	TX
	SureMB 120TG Base	ASTM D6163	I	S	TX
	SureMB 90 Poly Base	ASTM D6164	I	S	TX
	SureMB 120 Poly Base	ASTM D6164	I	S	TX

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 PEER, or previous versions thereof, is/was used for permitting or design guidance. PEERs are not to be construed as representing any attributes not specifically listed, nor are PEERs to be construed as an endorsement of the subject, or a recommendation for its use. There is no warranty by NEMO ETC, LLC or Robert Nieminen, P.E., express or implied, as to any finding or other matter in this PEER, or as to any product covered by the PEER.
- 5.2 This PEER is not for use in FBC High Velocity Hurricane Zone jurisdictions, as defined in FBC Chapter 2 (Broward and Miami-Dade Counties).
- 5.3 This PEER pertains to above-deck roof components. Roof decks and structural members shall be in accordance with the requirements of the applicable Code to the satisfaction of the Authority Having Jurisdiction.
- 5.4 This PEER does not include evaluation of fire classification. Refer to **FBC or IBC 1505** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC or IBC 2603** for requirements and limitations concerning the use of foam plastic insulation.
- 5.5 This PEER does not include evaluation of roof edge termination. Refer to **FBC or IBC 1504.5** for requirements and limitations regarding edge securement for low-slope roofs.
- 5.6 Refer to **FBC or IBC 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 or IBC 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 or IBC 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](#) or [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** 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 or IBC 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 PEER.

6. INSTALLATION:

Carlisle EPDM Single Ply Roof Systems shall be installed in accordance with **Carlisle SynTec Systems** published installation instructions, subject to the [Limitations of Use](#) noted herein.

7. BUILDING PERMIT REQUIREMENTS:

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

8. MANUFACTURING PLANTS:

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

9. QUALITY ASSURANCE ENTITY:

[UL LLC – QUA9625](#); (360) 817-5512; bsai.inspections@ul.com

- THE 34-PAGES THAT FOLLOW FORM PART OF THIS PEER -

APPENDIX 1: ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE

TABLE	DECK	APPLICATION	TYPE	DESCRIPTION	PAGE
1A	Wood	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover	7
2A	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	B-1	Mechanically Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	8
2B	Steel	New, Reroof (Tear-Off), Recover	B-2	Mech Attached Base Insulation, Bonded Temp Roof, Bonded Top Insulation, Bonded Roof Cover	12
2C	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover	13
2D	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	D-1	Insulated, Mechanically Attached Roof Cover (Stress Plates)	20
2E	Steel or Structural Concrete	New, Reroof (Tear-Off), Recover	D-1	Insulated, Mechanically Attached Roof Cover (Battens)	20
3A	Structural Concrete	New, Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	21
3B	Structural Concrete	New, Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	27
4A	LWC / Steel or Structural Concrete	New, Reroof (Tear-Off)	A-2	Mechanically Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	29
4B	LWC / Steel or Structural Concrete	New	F	Non-Insulated, Bonded Roof Cover	29
5A	Various	Recover	A-1	Bonded Insulation, Bonded Roof Cover	30
5B	Various	Recover	F	Non-Insulated, Bonded Roof Cover	34

The following notes apply to the systems outlined herein:

- The roof system evaluation herein pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC or IBC requirements to the satisfaction of the Authority Having Jurisdiction.
- Unless otherwise noted, fasteners and stress plates shall be as follows. Fasteners shall be of sufficient length for the following engagements:

FASTENER/PLATE OPTIONS				
DECK TYPE	By	FBC FILE NO.	PARTS	MINIMUM ENGAGEMENT
Wood	Carlisle SynTec	N/A	Carlisle HP Fastener with Carlisle Insulation Fastening Plate	Minimum ¾-inch plywood penetration or minimum 1-inch wood plank embedment
Steel	Carlisle SynTec	N/A	Carlisle HP Fastener with Carlisle Insulation Fastening Plate	Minimum ¾-inch steel penetration and engage the top flute of the steel deck
Structural Concrete	Carlisle SynTec	N/A	Carlisle HD 14-10 Fastener, Carlisle CD-10 or HP Concrete Spike (1/4) with Carlisle Insulation Fastening Plate	Minimum 1-inch embedment. Fastener 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 or IBC Approved (Local or Statewide) board(s) that meet FBC or IBC 1505 and, for foam plastic, FBC or IBC Chapter 26, when installed with the roof cover.
- Minimum 200 psi, minimum 2-inch thick FBC or IBC Approved lightweight insulating concrete may be substituted for rigid insulation board for System Types B-1, C-1, C-2, D-1 or D-2, whereby fasteners are installed through the lightweight insulating concrete to engage the structural deck. The structural deck shall be of equal or greater type, thickness and strength to the steel and structural concrete deck listings. Roof decks and structural members shall be in accordance with FBC or IBC requirements to the satisfaction of the Authority Having Jurisdiction. This is a wind uplift resistance allowance and does not purport to address non-wind-uplift-related issues, such as deck venting or moisture levels within the LWIC and the potential effect on overlying components.
- Preliminary Insulation Attachment:**
- Unless otherwise noted, use Approved roofing fasteners and plates; minimum two (2) parts per 4x4 ft board, minimum four (4) parts per 4x8 ft board or minimum six (6) parts per 4x12 ft board.
- For systems where a vapor barrier is installed refer to Section 2.2.10.1.3 of [FM Loss Prevention Data Sheet 1-29](#). For 4x12-ft boards, increase preliminary attachment requirements proportionally relative to FM LPDS 1-29 requirements for 4x8-ft boards.

5c For systems where no vapor barrier is installed, Carlisle InsulFast may be used in place of Carlisle HP Fastener for preliminary attachment purposes over wood and steel deck.

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.
- When multiple layers(s) of insulation and/or coverboard are installed in ribbon-applied adhesive, board joints shall be staggered.
- 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.
- "FULL" or "SPLATTER" applications may be used wherever "RIBBON" is referenced for insulation securement, except direct-to-steel-deck applications, where ribbons at the top flanges are required.

INSULATION ADHESIVE REFERENCES			
ADHESIVE	METHOD	REFERENCE	MINIMUM RATE
Flexible FAST	full-coverage	Flexible FAST (FULL)	Continuous ribbons, 4-inch o.c. or spray-applied at 1 gal./square
Flexible FAST	splatter-applied	Flexible FAST (SPLATTER)	Splatter-applied at 0.5 gal/square (wet) = 4.7 lb/square (dry)
Flexible FAST	ribbon-applied	Flexible FAST (RIBBON)	Continuous ribbons, 12-inch o.c.
Flexible FAST Dual-Tank	full-coverage	Flexible FAST DT (FULL)	Continuous ribbons, 4-inch o.c. or spray-applied at 1 gal./square
Flexible FAST Dual-Tank	splatter-applied	Flexible FAST DT (SPLATTER)	Splatter-applied at 0.4 gal/square (wet) = 3.7 lb/square (dry)
Flexible FAST Dual-Tank	ribbon-applied	Flexible FAST DT (RIBBON)	Continuous ribbons, 12-inch o.c.
Carlisle OlyBond 500 BA	ribbon-applied	OB500	Continuous 0.75-inch wide ribbons, 12-inch o.c. (PaceCart, SpotShot or Canister)

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.

MDP LIMITATIONS FOR TAPERED POLYISOCYANURATE INSULATIONS				
ADHESIVE	INSULATION		MIN. TAPERED THICKNESS (IN)	MDP (psf)
	LISTED PRODUCT	FBC FILE NO.		
Flexible FAST	Any polyisocyanurate listed with adhesive herein	Various	0.5	-157.5
OB500	Any polyisocyanurate listed with adhesive herein	Various	0.5	-187.5

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.

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 or IBC 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 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 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 or IBC 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 shall be conducted on mock-ups of the proposed new roof assembly. For bonded insulation or membrane over existing substrates in a recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the Authority Having Jurisdiction, as documented through field uplift testing. Field uplift testing shall be in accordance with ASTM E907, [FM Loss Prevention Data Sheet](#) 1-52 or [Testing Application Standard](#) TAS 124.

13 Refer to FBC or IBC 1511 for requirements and limitations regarding recover installations. For Structural Concrete Deck or Recover Applications using System Type C-1 the base insulation layer is optional and for System Type C-2, D-1 or D-2, the insulation is optional. Alternatively, an FBC or IBC Approved insulation board or coverboard may be used as a separation layer. Board products shall be preliminarily attached prior to roof cover installation ([Note 5](#)). The separator component shall be documented as meeting FBC or IBC 1505 and, for foam plastic, FBC or IBC Chapter 26, when installed with the roof cover in Recover applications.

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

- 15 For bonded membrane applications, unless otherwise noted, refer to the following.

MEMBRANE / ADHESIVE COMBINATIONS			
MEMBRANE	ADHESIVE	METHOD	RATE
Bareback Roof Covers	Aqua Base 120 Bonding Adhesive	Contact (both sides)	0.42 gal/square per surface [0.84 gal/square (120 ft ² /gal) finish]
Bareback Roof Covers	CAV-GRIP III Adhesive/Primer	Contact (both sides)	0.225 gal/square per surface [0.45 gal/square (222 ft ² /gal) finish]
Bareback Roof Covers	EPDM x-23 Low-VOC Bonding Adhesive	Contact (both sides)	0.83 gal/square per surface [(1.66 gal/square (60 ft ² /gal) finish]
Bareback Roof Covers	Sure-Seal 90-8-30A Bonding Adhesive	Contact (both sides)	0.83 gal/square per surface [(1.66 gal/square (60 ft ² /gal) finish]
FleeceBACK Roof Covers	Aqua Base 120 Bonding Adhesive	Wet lay (substrate)	0.83 gal/square (120 ft ² /gal)
FleeceBACK Roof Covers	Flexible FAST	Wet lay (substrate)	RIBBON, X spaced ‘X-inch o.c.’ as noted herein or FULL Coverage = 1 gal/square or continuous ribbons, maximum 4-inch o.c. or splatter-applied at 0.5 gal/square (wet) = 4.7 lb/square (dry)
FleeceBACK Roof Covers	Flexible FAST Dual-Tank (Flexible FAST DT)	Wet lay (substrate)	RIBBON, X spaced ‘X-inch o.c.’ as noted herein or FULL Coverage = 1 gal/square, continuous ribbons, maximum 4-inch o.c. or splatter-applied at 0.4 gal/square (wet) = 3.7 lb/square (dry)
AFX Roof Covers	Carlisle Cold Applied Adhesive	Wet lay (substrate)	1.5 gal/square
AFX Roof Covers	Hot asphalt	Wet lay (substrate)	25 lbs/square

- 15A For single-ply membranes in System Type D-1 steel deck applications, the roof membrane shall be run with its length perpendicular to the steel deck flutes.

- 15B For membrane attachment using batten-strips, end laps shall be spliced with sufficient dimension to allow for minimum 2-fasteners at each batten-strip lap.

- 15C Side laps shall be sealed in accordance with Carlisle requirements:

- Primed with Sure-Seal HP-250 Primer or Low-VOC EPDM Primer and adhered with Sure-Seal SecurTAPE or Sure-White SecurTAPE
- Primed with Sure-Seal HP-250 Primer and sealed with pre-applied seam tape.
- Cleaned with Weathered Membrane Cleaner, optional priming with Sure-Seal HP-250 Primer or Low-VOC EPDM Primer, and adhered with Sure-Seal EP-95 or Sure-White Splicing Cement.

- 16 **Thermal Barrier and/or Vapor Barrier Options:**

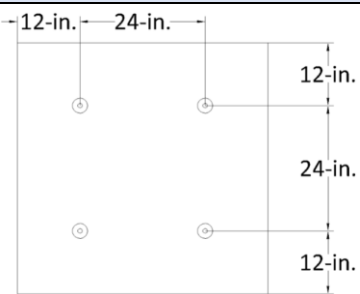
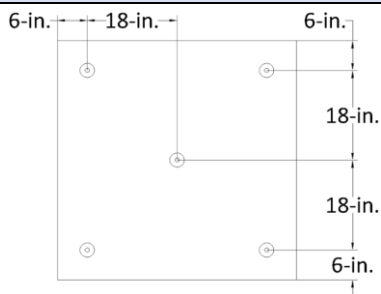
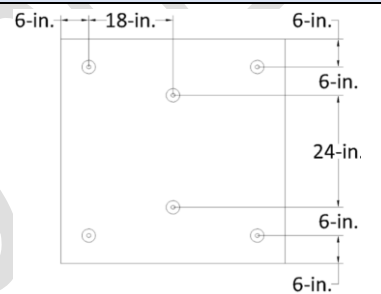
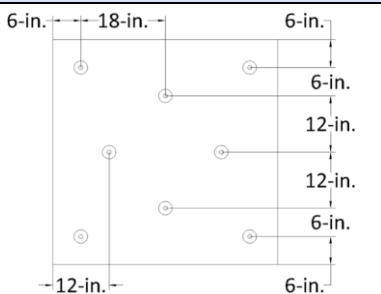
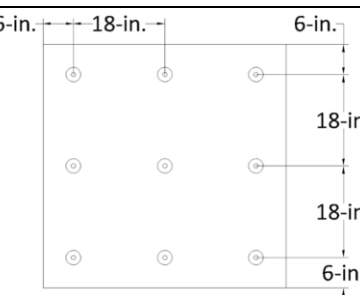
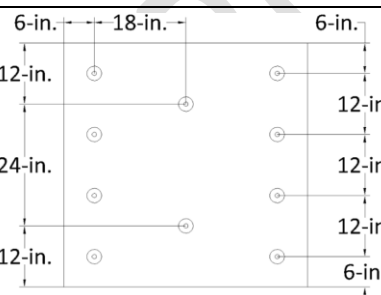
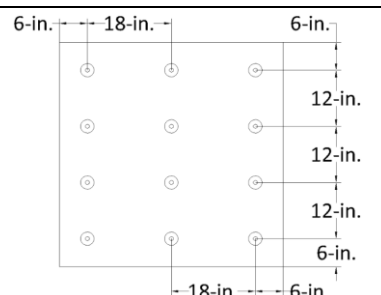
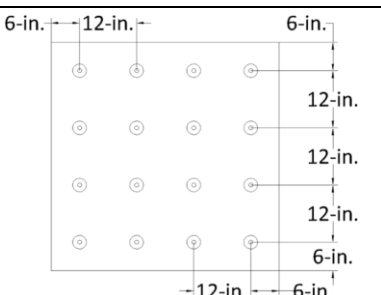
- 16A **Structural Concrete Decks:** The lesser of the MDP listings below vs. that for the selected assembly applies.

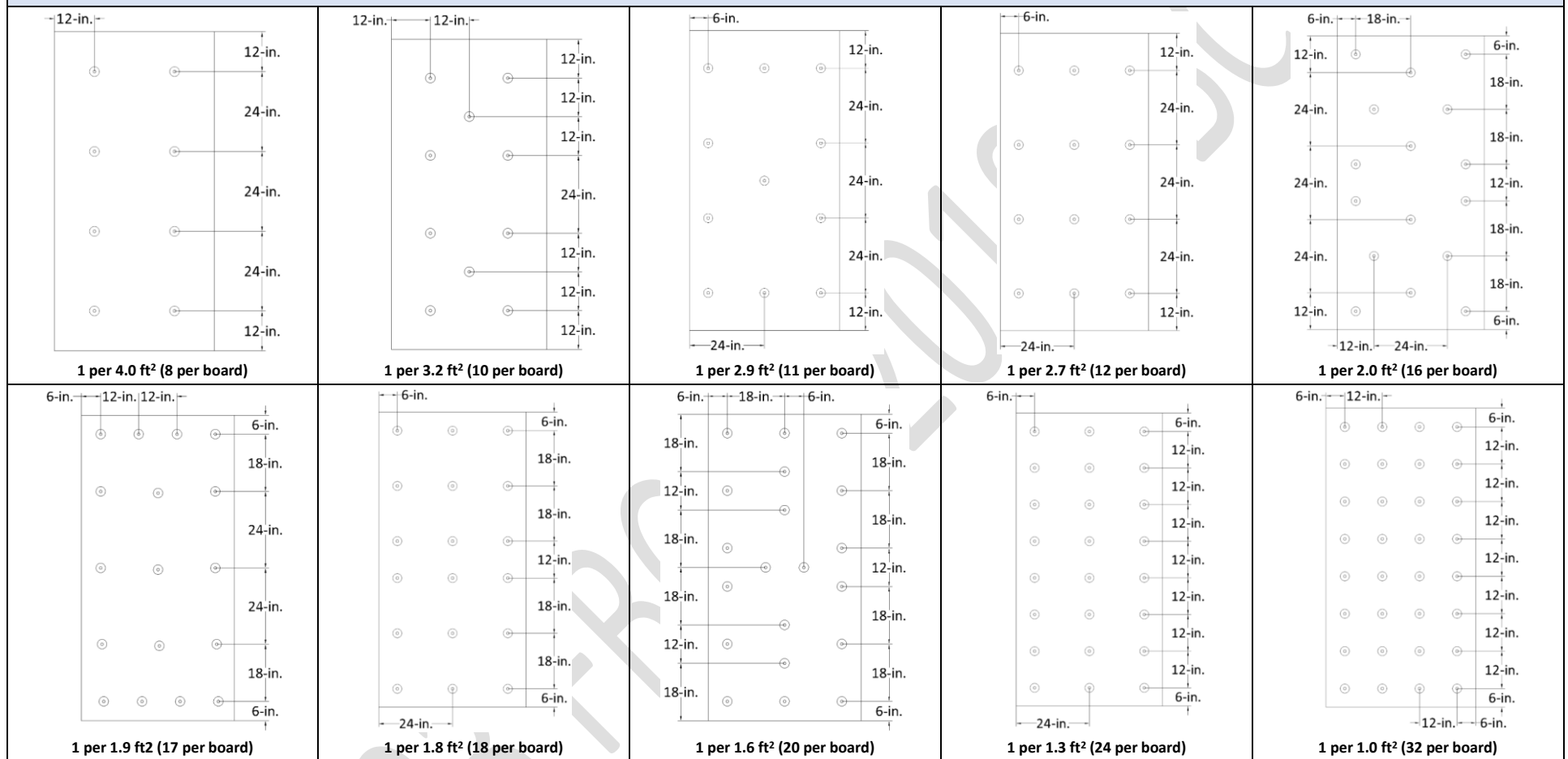
VAPOR BARRIER OPTIONS, STRUCTURAL CONCRETE DECK, ADHERED INSULATION					
OPTION #	PRIMER	VAPOR BARRIER		INSULATION ADHESIVE PER TABLE 3A (NOTES 6,7,8)	MDP (psf)*
		TYPE	APPLICATION		
C-VB-1.	702 Primer, 702 LV Primer, CAV-GRIP Primer or CAV-GRIP III LVOC-AP	VapAir Seal 725TR	Self-adhering	Flexible FAST (RIBBON)	-157.5
C-VB-2.	702 Primer, 702 LV Primer, CAV-GRIP Primer or CAV-GRIP III LVOC-AP	VapAir Seal 725TR	Self-adhering	Flexible FAST DT (RIBBON)	-172.5
C-VB-3.	702 Primer, 702 LV Primer, CAV-GRIP Primer or CAV-GRIP III LVOC-AP	VapAir Seal 725TR	Self-adhering	Flexible FAST (RIBBON, 6-inch o.c. or SPLATTER) or Flexible FAST DT (RIBBON, 6-inch o.c. or SPLATTER)	-270.0
C-VB-4.	CAV-GRIP Primer or CAV-GRIP III LVOC-AP	VapAir Seal 725TR	Self-adhering	Flexible FAST (FULL COVERAGE, 1 gal/square), Flexible FAST (SPLATTER) or Flexible FAST DT (SPLATTER)	-427.5
C-VB-5.	ASTM D41	SureMB 90 Base, SureMB 90 Poly Base or SureMB 120 Poly Base	Hot-asphalt	Hot asphalt at 25 lbs/square	-172.5
C-VB-6.	ASTM D41	SureMB 90TG or 120TG Base	Torch-applied	Hot asphalt at 25 lbs/square	-180.0

VAPOR BARRIER OPTIONS, STRUCTURAL CONCRETE DECK, ADHERED INSULATION					
OPTION #	PRIMER	VAPOR BARRIER		INSULATION ADHESIVE PER TABLE 3A (NOTES 6,7,8)	MDP (psf)*
		TYPE	APPLICATION		
C-VB-7.	None	SureMB 90 Base, SureMB 90 Poly Base or SureMB 120 Poly Base	Carlisle Cold Applied Adhesive, 1-inch ribbons, 12-inch o.c.	Flexible FAST (RIBBON) or Flexible FAST DT (RIBBON)	-180.0
C-VB-8.	None	SureMB 90 Base, SureMB 90 Poly Base or SureMB 120 Poly Base	Carlisle Cold Applied Adhesive, 1-inch ribbons, 6-inch o.c.	Flexible FAST (RIBBON, 6-inch o.c. or SPLATTER) or Flexible FAST DT (RIBBON, 6-inch o.c. or SPLATTER)	-255.0
C-VB-9.	ASTM D41	SureMB 90TG or 120TG Base	Torch-applied	Flexible FAST (RIBBON) or Flexible FAST DT (RIBBON)	-307.5
C-VB-10.	ASTM D41	SureMB 90TG or 120TG Base	Torch-applied	Flexible FAST (RIBBON, 6-inch o.c. or SPLATTER) or Flexible FAST DT (RIBBON, 6-inch o.c. or SPLATTER)	-495.0

16a For System Types B-1, B-2, C-1, C-2, D-1 or D-2, VapAir Seal 725TR or VapAir Seal MD may be installed atop the roof deck prior to installation of the insulation and roof cover. Refer to [FM Loss Prevention Data Sheet](#) 1-29 for design and installation limitations.

17 Unless otherwise noted, insulation or coverboard attachment patterns for Type B-1, Type B-2 and Type C-1 systems are as outlined below.

INSULATION ATTACHMENT PATTERNS – 4x4 FT BOARDS			
 1 per 4.0 ft² (4 per board)	 1 per 3.2 ft² (5 per board)	 1 per 2.7 ft² (6 per board)	 1 per 2.0 ft² (8 per board)
 1 per 1.8 ft² (9 per board)	 1 per 1.6 ft² (10 per board)	 1 per 1.3 ft² (12 per board)	 1 per 1.0 ft² (16 per board)

INSULATION ATTACHMENT PATTERNS – 4x8 FT BOARDS


- 18 The following products are interchangeable within the scope of this Evaluation Report:

ACCEPTABLE ALTERNATES				
SUB-CATEGORY	By	LISTED PRODUCT HEREIN	ALTERNATE	FBC File
MEMBRANE	Carlisle SynTec	Sure-Seal FleeceBACK	Includes 100, 115 and 145	FL14083
		Sure-Seal AFX	Includes AFX 90 and AFX 105	
		Sure-White FleeceBACK	Includes 100, 115 and 145	
ADHESIVES	Carlisle SynTec	OB500	OMG OlyBond 500 Adhesive Fastener	FL1608
ROOFING INSULATION	Carlisle SynTec	InsulBase	InsulBase NH, H-Shield, H-Shield NH	FL5968
		SecurShield	SecurShield NH, H-Shield CG, H-Shield CG NH	
		SecurShield HD	SecurShield HD NH, H-Shield HD, H-Shield HD NH	
		SecurShield HD Plus	SecurShield HD Plus NH, H-Shield HD90, H-Shield HD90 NH	
		SecurShield HD Composite	H-Shield HD Composite	
		StormBase	H-Shield NB	
	Georgia-Pacific Gypsum, LLC	DensDeck Prime	DensDeck StormX Prime Roof Board	FL1250

- 19 “MDP” = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. Refer to FBC or IBC 1609 for determination of design wind loads. ([Note 9](#) and [Note 10](#))

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

System No.	Deck (Note 1)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 2, Note 11)	Attach (Note 17)		
MEMBRANE APPLIED IN CAV-GRIP III ADHESIVE/PRIMER OR SURE-SEAL 90-8-30A:							
W-1	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Carlisle InsulFast with SecurFast Insulation Fastening Plate	1 per 2.0 ft²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-30.0
W-2	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Carlisle InsulFast with Insulation Fastening Plate	1 per 2.0 ft²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-37.5
W-3	Min. 19/32" plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch thick HP Recovery Board, min. 0.25-inch thick DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board, min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Note 2	1 per 2.0 ft²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-45.0*
W-4	Min. 19/32" plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch Polyiso HP-H Composite or H-Shield-WF	Note 2	1 per 2.9 ft²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-45.0*
W-5	Min. 19/32" plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Min. 2.0-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Note 2	1 per 4.0 ft²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-45.0*
W-6	Min. 23/32-inch plywood	(Optional) One or more layers, any combination, loose laid	Min 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 3.2 ft²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-45.0*
MEMBRANE APPLIED IN EPDM x-23 LOW-VOC BONDING ADHESIVE:							
W-7	Min. 23/32-inch plywood	(Optional) One or more layers, any combination, loose laid	Min 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 3.2 ft²	Sure-Seal FR Nonreinforced, Sure-White, Sure-Tough or Sure-Tough FR / EPDM x-23 Low-VOC Bonding Adhesive	-45.0*
MEMBRANE APPLIED IN FLEXIBLE FAST OR FLEXIBLE FAST DUAL-TANK:							
W-8	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Carlisle InsulFast with SecurFast Insulation Fastening Plate	1 per 2.0 ft²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-30.0
W-9	Min. 19/32-inch CDX plywood or wood plank; 2-ft spans	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Carlisle InsulFast with Insulation Fastening Plate	1 per 2.0 ft²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-37.5
W-10	Min. 23/32-inch plywood	(Optional) One or more layers, any combination, loose laid	Min 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 3.2 ft²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-45.0*

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

System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
		Type	Fasten (Note 2, Note 11)	Attach (Note 17)	Type	Attach (Notes 6,7,8)		
MEMBRANE APPLIED IN CAV-GRIP III ADHESIVE/PRIMER OR SURE-SEAL 90-8-30A:								
SC-1	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 2-inch Insulfoam VIII	Note 2	1 per 2.7 ft²	Min. 1.5-inch InsulLam (OSB)	Flexible FAST (RIBBON, 6 or SPLATTER) or Flexible FAST DT (RIBBON, 6 or SPLATTER)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-37.5*
SC-2	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 2-inch Insulfoam VIII	Note 2	1 per 2.0 ft²	Min. 2-inch Insulfoam HD Composite	Flexible FAST (RIBBON, 6 or SPLATTER) or Flexible FAST DT (RIBBON, 6 or SPLATTER)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-45.0*
SC-3	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield	Steel: InsulFast with Insulation Fastening Plate Concrete: Note 2	1 per 1.8 ft²	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON, 6-inch o.c.)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-52.5
SC-4	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield	Steel: InsulFast with Insulation Fastening Plate Concrete: Note 2	1 per 2.0 ft²	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 0.5-inch DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board, SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-60.0
SC-5	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase, SecurShield	Steel: InsulFast with Insulation Fastening Plate Concrete: Note 2	1 per 1.8 ft²	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON, 6-inch o.c.)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-60.0
SC-6	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase, SecurShield	Steel: InsulFast with Insulation Fastening Plate Concrete: Note 2	1 per 1.6 ft²	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 0.5-inch DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board, SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON, 6-inch o.c.)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-67.5

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

System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
		Type	Fasten (Note 2, Note 11)	Attach (Note 17)	Type	Attach (Notes 6,7,8)		
SC-7	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield	Steel: InsulFast with Insulation Fastening Plate Concrete: Note 2	1 per 1.3 ft ²	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-82.5
SC-8	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase, SecurShield	Steel: InsulFast with Insulation Fastening Plate Concrete: Note 2	1 per 1.3 ft ²	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-90.0
SC-9	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase, SecurShield	Steel: InsulFast with Insulation Fastening Plate Concrete: Note 2	1 per 1.0 ft ²	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board, SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-112.5
SC-10	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase or SecurShield	Note 2	1 per 1.3 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-60.0
MEMBRANE APPLIED IN FLEXIBLE FAST OR FLEXIBLE FAST DUAL-TANK:								
SC-11	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Note 2	1 per 2.0 ft ²	Min. 0.25-inch DensDeck, DensDeck Prime	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (RIBBON, 12)	-37.5*
SC-12	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck or DensDeck Prime	Note 2	1 per 2.0 ft ²	Min. 1.5-inch Kingspan GreenGuard Extruded Polystyrene followed by min. 0.25-inch DensDeck Prime	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (RIBBON, 12)	-37.5*
SC-13	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 2-inch Insulfoam VIII	Note 2	1 per 2.7 ft ²	Min. 1.5-inch InsulLam (OSB)	Flexible FAST (RIBBON, 6 or SPLATTER) or Flexible FAST DT (RIBBON, 6 or SPLATTER)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-37.5*

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

System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
		Type	Fasten (Note 2, Note 11)	Attach (Note 17)	Type	Attach (Notes 6,7,8)		
SC-14	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Note 2	1 per 2.0 ft ²	Additional layers of base insulation	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (RIBBON, 12)	-45.0*
SC-15	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase or SecurShield	Note 2	1 per 3.2 ft ²	Min. 1.0-inch base insulation	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-45.0*
SC-16	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase or SecurShield	Note 2	1 per 3.2 ft ²	Min. 0.25-inch DensDeck Prime	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-45.0*
SC-17	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch InsulBase or SecurShield	Note 2	1 per 4.0 ft ²	Min. 1.0-inch base insulation	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-45.0*
SC-18	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch InsulBase or SecurShield	Note 2	1 per 4.0 ft ²	Min. 0.25-inch DensDeck Prime	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-45.0*
SC-19	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 2-inch Insulfoam VIII	Note 2	1 per 2.0 ft ²	Min. 2-inch Insulfoam HD Composite	Flexible FAST (RIBBON, 6 or SPLATTER) or Flexible FAST DT (RIBBON, 6 or SPLATTER)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-45.0*
SC-20	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield	Steel: InsulFast with Insulation Fastening Plate Concrete: Note 2	1 per 2.0 ft ²	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime, SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-60.0
SC-21	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase or SecurShield	Note 2	1 per 1.6 ft ²	Min. 1.0-inch base insulation	Flexible FAST (RIBBON, 6 or SPLATTER) or Flexible FAST DT (RIBBON, 6 or SPLATTER)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-67.5
SC-22	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase, SecurShield	Steel: InsulFast with Insulation Fastening Plate Concrete: Note 2	1 per 1.6 ft ²	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime, SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON, 6-inch o.c.)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-67.5

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

System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover (Note 15)	MDP (psf)
		Type	Fasten (Note 2 , Note 11)	Attach (Note 17)	Type	Attach (Notes 6,7,8)		
SC-23	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield	Steel: InsulFast with Insulation Fastening Plate Concrete: Note 2	1 per 1.3 ft ²	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-82.5
SC-24	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase, SecurShield	Steel: InsulFast with Insulation Fastening Plate Concrete: Note 2	1 per 1.3 ft ²	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-90.0
SC-25	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase, SecurShield	Steel: InsulFast with Insulation Fastening Plate Concrete: Note 2	1 per 1.0 ft ²	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch DensDeck Prime, SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-112.5

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

System No.	Deck (Note 1)	Thermal Barrier			Primer	Vapor Barrier	Base Insulation Layer		Top Insulation Layer(s)		Roof Cover (Note 15)	MDP (psf)
		Type	Fasten (Note 2 , Note 11)	Attach (Note 17)			Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)		
MEMBRANE APPLIED IN FLEXIBLE FAST OR FLEXIBLE FAST DUAL-TANK:												
SC-26	Min. 22 ga., type B, Grade 33 steel	Min. 0.5-inch DensDeck Prime or min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.0 ft²	CAV-GRIP Primer	VapAir Seal 725TR, self-adhering	Min. 1.5-inch InsulBase, SecurShield	Flexible FAST or Flexible FAST DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON, 6-inch o.c.)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-45.0*
SC-27	Min. 22 ga., type B, Grade 33 steel	Min. 0.5-inch DensDeck Prime	Note 2	1 per 2.0 ft²	CAV-GRIP Primer or CCW-702 Quick Dry Primer	VapAir Seal 725TR, self-adhering	Min. 1.5-inch InsulBase, SecurShield	Flexible FAST or Flexible FAST DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-52.5
SC-28	Min. 22 ga., type B, Grade 33 steel	Min. 0.5-inch DensDeck Prime	InsulFast with Insulation Fastening Plate	1 per 1.6 ft²	None	SureMB 90TG or SureMB 120TG, torch-applied	Min. 1.5-inch InsulBase, SecurShield	Flexible FAST or Flexible FAST DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-67.5

TABLE 2c: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Insulation Layer (Note 3 , Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 2 , Note 11)	Attach (Note 17)		
MEMBRANE APPLIED IN CAV-GRIP III ADHESIVE/PRIMER OR SURE-SEAL 90-8-30A:							
SC-29	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, loose laid	Min. 0.5-inch SecurShield HD	Steel: InsulFast with ACCUTRAC Fastening Plate Concrete: HD 14-10, CD-10 or HP Concrete Spike (1/4) with ACCUTRAC Insulation Fastening Plate	1 per 4.0 ft²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-30.0*
SC-30	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.5-inch SecurShield HD	Note 2	1 per 2.7 ft²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-37.5*
SC-31	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. 0.5-inch thick HP Recovery Board	Note 2	1 per 2.0 ft²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-45.0*
SC-32	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. 0.25-inch thick DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.0 ft²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-45.0*
SC-33	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 InsulBase or SecurShield	Note 2	1 per 1.6 ft²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-45.0*
SC-34	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 InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Note 2	1 per 2.0 ft²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-45.0*
SC-35	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2.0-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Note 2	1 per 4.0 ft²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-45.0*
SC-36	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch Polyiso HP-H Composite or H-Shield-WF	Note 2	1 per 2.9 ft²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-45.0*
SC-37	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Min. 0.5-inch SecurShield HD Plus or EcoStorm VSH	Note 2	1 per 4.0 ft²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-45.0*

TABLE 2c: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Insulation Layer (Note 3 , Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 2 , Note 11)	Attach (Note 17)		
SC-38	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1-inch InsulBase or SecurShield	Min. 0.5-inch DensDeck Prime	Note 2	1 per 1.6 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-52.5
SC-39	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Min. 0.5-inch SecurShield HD Plus or EcoStorm VSH	Note 2	1 per 1.8 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-60.0
SC-40	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch SecurShield	Note 2	1 per 2.0 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-60.0
SC-41	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board, followed by min. 1.5-inch Styrofoam Roofmate or Highload 60	Min. 0.5-inch DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.3 ft ²	Sure-Tough or Sure-Tough FR / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-67.5
SC-42	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase or SecurShield	Min. 0.5-inch DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.3 ft ²	Sure-Tough or Sure-Tough FR / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-67.5
SC-43	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2.0-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Note 2	1 per 1.6 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-75.0
SC-44	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1-inch InsulBase or SecurShield	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.6 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-75.0
SC-45	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase or SecurShield	Min. 7/16-inch APA rated OSB	Note 2	1 per 1.6 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-82.5

TABLE 2c: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 2, Note 11)	Attach (Note 17)		
SC-46	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board, followed by min. 1.5-inch Styrofoam Roofmate or Highload 60	Min. 0.5-inch DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.0 ft ²	Sure-Tough or Sure-Tough FR / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-97.5
SC-47	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase or SecurShield	Min. 0.5-inch DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.0 ft ²	Sure-Tough or Sure-Tough FR / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-97.5
SC-48	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase or SecurShield	Min. 7/16-inch APA rated OSB	Note 2	1 per 1.0 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-105.0
SC-49	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch SecurShield or SecurShield HD Composite	Note 2	1 per 1.0 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-112.5
SC-50	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Min. 0.5-inch SecurShield HD Plus or EcoStorm VSH	Note 2	1 per 1.3 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-112.5
SC-51	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch SecurShield or SecurShield HD Composite	Note 2	1 per 1.0 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-127.5
SC-52	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	0.5-inch EcoStorm VSH	Steel: InsulFast Fastener and Insulation Fastening Plate or SecurFast Concrete: Note 2	1 per 1.0 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM / CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-150.0
MEMBRANE APPLIED IN AQUA BASE 120 BA ADHESIVE:							
SC-53	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. 0.5-inch HP Recovery Board or min. 0.25-inch DensDeck Prime	Note 2	1 per 4.0 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR / Aqua Base 120 BA	-30.0*
SC-54	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	None	Min. 0.5-inch HP Recovery Board	Note 2	1 per 2.0 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR / Aqua Base 120 BA	-37.5*

TABLE 2c: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 2, Note 11)	Attach (Note 17)		
SC-55	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Min. 0.5-inch HP Recovery Board	Note 2	1 per 2.0 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR / Aqua Base 120 BA	-45.0*
SC-56	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch DensDeck Prime	Note 2	1 per 2.0 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR / Aqua Base 120 BA	-45.0*
SC-57	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 7/16" APA Rated oriented strand board	Note 2	1 per 2.0 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR / Aqua Base 120 BA	-45.0*
SC-58	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 InsulBase or SecurShield	Note 2	1 per 1.6 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR / Aqua Base 120 BA	-45.0*
SC-59	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 InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Note 2	1 per 2.0 ft ²	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR / Aqua Base 120 BA	-45.0*
SC-60	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Min. 0.5-inch HP Recovery Board	Note 2	1 per 2.0 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Aqua Base 120 BA	-45.0*
SC-61	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 0.25-inch DensDeck Prime	Note 2	1 per 2.0 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Aqua Base 120 BA	-45.0*
SC-62	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Note 2	1 per 2.0 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Aqua Base 120 BA	-45.0*
MEMBRANE APPLIED IN EPDM x-23 Low-VOC BONDING ADHESIVE:							
SC-63	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch InsulBase or SecurShield	Note 2	1 per 3.2 ft ²	Sure-Seal FR Nonreinforced, Sure-White, Sure-Tough or Sure-Tough FR / EPDM x-23 Low-VOC Bonding Adhesive	-45.0*
SC-64	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2.0-inch InsulBase or SecurShield	Note 2	1 per 4.0 ft ²	Sure-Seal FR Nonreinforced, Sure-White, Sure-Tough or Sure-Tough FR / EPDM x-23 Low-VOC Bonding Adhesive	-45.0*
SC-65	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Min. 0.5-inch HP Recovery Board	Note 2	1 per 2.0 ft ²	Sure-Seal FR Nonreinforced, Sure-White, Sure-Tough or Sure-Tough FR / EPDM x-23 Low-VOC Bonding Adhesive	-45.0*
SC-66	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2.0-inch InsulBase or SecurShield	Note 2	1 per 1.6 ft ²	Sure-Seal FR Nonreinforced, Sure-White, Sure-Tough or Sure-Tough FR / EPDM x-23 Low-VOC Bonding Adhesive	-75.0

TABLE 2c: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 2, Note 11)	Attach (Note 17)		
SC-67	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch SecurShield	Note 2	1 per 1.0 ft ²	Sure-Seal FR Nonreinforced, Sure-White, Sure-Tough or Sure-Tough FR / EPDM x-23 Low-VOC Bonding Adhesive	-75.0
MEMBRANE APPLIED IN FLEXIBLE FAST OR FLEXIBLE FAST DUAL-TANK:							
SC-68	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, loose laid	Min. 0.5-inch SecurShield HD	Steel: InsulFast with ACCUTRAC Fastening Plate Concrete: HD 14-10, CD-10 or HP Concrete Spike (1/4) with ACCUTRAC Fastening Plate	1 per 4.0 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-30.0*
SC-69	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.5-inch SecurShield HD	Note 2	1 per 2.7 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-37.5*
SC-70	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min 0.5-inch HP Recovery Board	Note 2	1 per 2.0 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (RIBBON, 12)	-45.0*
SC-71	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min 0.5-inch DensDeck Prime	Note 2	1 per 2.0 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (RIBBON, 12)	-45.0*
SC-72	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Min. 0.5-inch SecurShield HD Plus or EcoStorm VSH	Note 2	1 per 4.0 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-45.0*
SC-73	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Min. 0.5-inch SecurShield HD Plus or EcoStorm VSH	Note 2	1 per 1.8 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-60.0
SC-74	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min 7/16-inch APA or TECO rated OSB	Note 2	1 per 1.9 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-75.0
SC-75	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, loose laid	0.5-inch EcoStorm VSH	Steel: InsulFast Fastener and Insulation Fastening Plate or SecurFast Insulation Fastening Plate Concrete: Note 2	1 per 1.0 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-82.5
SC-76	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.5-inch DensDeck Prime	Note 2	1 per 1.0 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-97.5
SC-77	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch Polyiso HP-H, InsulBase	Note 2	1 per 1.0 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-112.5

TABLE 2C: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners (Note 2, Note 11)	Attach (Note 17)		
SC-78	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Min. 0.5-inch SecurShield HD Plus or EcoStorm VSH	Note 2	1 per 1.3 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-112.5
SC-79	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.0 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-127.5
SC-80	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch SecurShield	Note 2	1 per 1.0 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-135.0
SC-81	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min 7/16-inch APA or TECO rated OSB	Note 2	1 per 1.0 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-135.0
SC-82	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch thick, one or more layers, any combination, loose laid	0.5-inch EcoStorm VSH	Steel: InsulFast Fastener and Insulation Fastening Plate or SecurFast Insulation Fastening Plate Concrete: Note 2	1 per 1.0 ft ²	Sure-Seal FleeceBACK or Sure-White FleeceBACK / Flexible FAST or Flexible FAST DT (FULL)	-135.0
MEMBRANE APPLIED IN CARLISLE COLD APPLIED ADHESIVE:							
SC-83	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. 0.5-inch HP Recovery Board	Note 2	1 per 2.0 ft ²	Sure-Seal AFX / Carlisle Cold Applied Adhesive	-45.0*
SC-84	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. 0.25-inch DensDeck Prime	Note 2	1 per 2.0 ft ²	Sure-Seal AFX / Carlisle Cold Applied Adhesive	-45.0*
SC-85	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Note 2	1 per 1.6 ft ²	Sure-Seal AFX / Carlisle Cold Applied Adhesive	-60.0

TABLE 2D: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D-1: INSULATED, MECHANICALLY ATTACHED ROOF COVER (STRESS PLATES)

System No.	Deck (Note 1)	Insulation (Note 3, Note 13)		Roof Cover (Note 15)			MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners (Note 11)	Attachment	
SC-86	Min. 22 ga, type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR (0.070" thick)	Carlisle HP Fastener (steel only), HD 14-10, CD-10 (concrete only) or HP Concrete-Spike (concrete only) with Sure-Seal 2 in. Polymer Seam plates	12-inch o.c. within 7-inch wide laps spaced 115-inch o.c.	-30.0

**TABLE 2D: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D-1: INSULATED, MECHANICALLY ATTACHED ROOF COVER (STRESS PLATES)**

System No.	Deck (Note 1)	Insulation (Note 3 , Note 13)		Roof Cover (Note 15)			MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners (Note 11)	Attachment	
SC-87	Min. 22 ga, type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR	Carlisle HP Fastener (steel only), HD 14-10, CD-10 (concrete only) or HP Concrete-Spike (concrete only) with Sure-Seal 2 in. Polymer Seam plates	12-inch o.c. within 6-inch wide laps spaced 90-inch o.c.	-30.0
SC-88	Min. 22 ga, type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR	Carlisle HP Fastener (steel only), HD 14-10, CD-10 (concrete only) or HP Concrete-Spike (concrete only) with Sure-Seal 2 in. Polymer Seam plates	6-inch o.c. within 6-inch wide laps spaced 114-inch o.c.	-37.5
SC-89	Min. 22 ga, type B, Grade 40 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR (0.070" thick)	Carlisle HP Fastener (steel only), HD 14-10, CD-10 (concrete only) or HP Concrete-Spike (concrete only) with Sure-Seal 2 in. Polymer Seam plates	6-inch o.c. within 6-inch wide laps spaced 114-inch o.c.	-52.5
SC-90	Min. 22 ga, type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR	Carlisle HP Fastener (steel only), HD 14-10, CD-10 (concrete only) or HP Concrete-Spike (concrete only) with Sure-Seal 2 in. Polymer Seam plates	6-inch o.c. within 6-inch wide laps spaced 114-inch o.c.	-52.5
SC-91	Min. 22 ga, type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR	Carlisle HP Fastener (steel only), HD 14-10, CD-10 (concrete only) or HP Concrete-Spike (concrete only) with Sure-Seal 2 in. Polymer Seam plates	6-inch o.c. within 6-inch wide laps spaced 90-inch o.c.	-52.5
SC-92	Min. 22 ga, type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-White FleeceBACK 145	Carlisle HP Fastener (steel only), HD 14-10, CD-10 (concrete only) or HP Concrete-Spike (concrete only) with Sure-Seal 2 in. Polymer Seam plates	6-inch o.c. within 6-inch wide laps spaced 112-inch o.c.	-52.5
SC-93	Min. 22 ga, type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR (0.070" thick)	Carlisle HP Fastener (steel only), HD 14-10, CD-10 (concrete only) or HP Concrete-Spike (concrete only) with Sure-Seal 2 in. Polymer Seam plates	6-inch o.c. within 7-inch wide laps spaced 115-inch o.c.	-60.0

**TABLE 2E: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D-1: INSULATED, MECHANICALLY ATTACHED ROOF COVER (BATTENS)**

System No.	Deck (Note 1)	Insulation (Note 3 , Note 13)		Roof Cover (Note 15)			MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners (Note 11)	Attachment	
SC-94	Min. 22 ga, type B, Grade 40 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR	Carlisle HP-X (steel only), HD 14-10 (concrete only), CD-10 (concrete only) or HP Concrete-Spike (concrete only) with Sure-Seal Metal Fastening Bars or Sure-Tite Fasteners (steel only) with ST Membrane Fastening Bars	Fasteners 12-inch o.c. through batten within 6-inch wide laps spaced 114-inch o.c.	-30.0
SC-95	Min. 22 ga, type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR	Carlisle HP-X (steel only), HD 14-10 (concrete only), CD-10 (concrete only) or HP Concrete-Spike (concrete only) with OMG Polymer Batten Strip.	Fasteners 12-inch o.c. through batten within 6-inch wide laps spaced 90-inch o.c.	-30.0
SC-96	Min. 22 ga, type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR	Carlisle HP-X (steel only), HD 14-10 (concrete only), CD-10 (concrete only) or HP Concrete-Spike (concrete only) with Sure-Seal Metal Fastening Bars	Fasteners 12-inch o.c. through batten within 6-inch wide laps spaced 90-inch o.c.	-30.0
SC-97	Min. 22 ga, type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR	Carlisle HP-X (steel only), HD 14-10 (concrete only), CD-10 (concrete only) or HP Concrete-Spike (concrete only) with Sure-Seal Metal Fastening Bars or Sure-Tite Fasteners (steel only) with ST Membrane Fastening Bars	Fasteners 12-inch o.c. through batten within min. 5-inch wide laps spaced max 115-inch o.c.	-37.5
SC-98	Min. 22 ga, type B, Grade 80 steel	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR	Sure-Tite Fasteners (steel only) with ST Membrane Fastening Bars	Fasteners 12-inch o.c. through batten within 6-inch wide laps spaced 114-inch o.c.	-45.0
SC-99	Min. 22 ga, type B, Grade 33 steel	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR	Sure-Tite Fasteners (steel only) with ST Membrane Fastening Bars	Fasteners 12-inch o.c. through batten within 6-inch wide laps spaced 90-inch o.c.	-45.0
SC-100	Min. 22 ga, type B, Grade 40 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR	Carlisle HP-X (steel only), HD 14-10 (concrete only), CD-10 (concrete only) or HP Concrete-Spike (concrete only) with Sure-Seal Metal Fastening Bars or Sure-Tite Fasteners (steel only) with ST Membrane Fastening Bars	Fasteners 6-inch o.c. through batten within 6-inch wide laps spaced 114-inch o.c.	-52.5
SC-101	Min. 22 ga, type B, Grade 80 steel	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR	Sure-Tite Fasteners (steel only) with ST Membrane Fastening Bars	Fasteners 12-inch o.c. through batten within 6-inch wide laps spaced 90-inch o.c.	-52.5
SC-102	Min. 22 ga, type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR	Carlisle HP-X (steel only), HD 14-10 (concrete only), CD-10 (concrete only) or HP Concrete-Spike (concrete only) with Sure-Seal Metal Fastening Bars or Sure-Tite Fasteners (steel only) with ST Membrane Fastening Bars	Fasteners 6-inch o.c. through batten within min. 5-inch wide laps spaced max. 115-inch o.c.	-60.0
SC-103	Min. 22 ga, type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR	Carlisle HP-X (steel only), HD 14-10 (concrete only), CD-10 (concrete only) or HP Concrete-Spike (concrete only) with OMG Polymer Batten Strip.	Fasteners 6-inch o.c. through batten within 6-inch wide laps spaced 90-inch o.c.	-60.0
SC-104	Min. 22 ga, type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5" thick, one or more layers, any combination	Prelim attach	Sure-Tough or Sure-Tough FR	Carlisle HP-X (steel only), HD 14-10 (concrete only), CD-10 (concrete only) or HP Concrete-Spike (concrete only) with Sure-Seal Metal Fastening Bars	Fasteners 6-inch o.c. through batten within 6-inch wide laps spaced 90-inch o.c.	-82.5

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

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)	Membrane	Application	
MEMBRANE APPLIED IN CAV-GRIP III ADHESIVE/PRIMER OR SURE-SEAL 90-8-30A:								
C-1.	Min. 2,500 psi structural concrete (primed)	Min. 0.5-inch InsulBase or SecurShield	Hot Asphalt	(Optional) Additional layers of base insulation	Hot Asphalt	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-157.5
C-2.	Min. 2,500 psi structural concrete (primed)	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Hot Asphalt	(Optional) Additional layers of base insulation	Hot Asphalt	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-330.0
C-3.	Min. 2,500 psi structural concrete (primed)	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Hot Asphalt	Min 0.5-inch HP Recovery Board	Hot Asphalt	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-330.0
C-4.	Min. 2,500 psi structural concrete (primed)	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Hot Asphalt	Min. 0.25-inch DensDeck, DensDeck Prime	Hot Asphalt	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-352.5
C-5.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulLam (OSB)	Flexible FAST or Flexible FAST DT (FULL)	None	N/A	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-105.0
C-6.	Min. 2,500 psi structural concrete	Min. 0.5-inch InsulBase or SecurShield	Flexible FAST or Flexible FAST DT (RIBBON)	(Optional) Additional layers of base insulation	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-157.5
C-7.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (RIBBON)	Min 0.5-inch HP Recovery Board	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-157.5
C-8.	Min. 2,500 psi structural concrete	Min. 0.5-inch InsulBase or SecurShield	Flexible FAST or Flexible FAST DT (RIBBON)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-157.5
C-9.	Min. 2,500 psi structural concrete	Min. 0.5-inch InsulBase, SecurShield	Flexible FAST or Flexible FAST DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-157.5
C-10.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulLam (GYP)	Flexible FAST or Flexible FAST DT (FULL)	None	N/A	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-157.5

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

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)	Membrane	Application	
C-11.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (RIBBON)	Min. 0.25-inch DensDeck, DensDeck Prime	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-232.5
C-12.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (RIBBON)	(Optional) Additional layers of base insulation	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-240.0
C-13.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (RIBBON)	Min. 2-inch Polyiso HP-H Composite	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-240.0
C-14.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulLam (WF)	Flexible FAST or Flexible FAST DT (FULL)	None	N/A	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-255.0
C-15.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch SecurShield or H-Shield CG	Flexible FAST or Flexible FAST DT (RIBBON)	Min. 1.5-inch SecurShield HD Composite or H-Shield HD Composite	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-270.0
C-16.	Min. 2,500 psi structural concrete	Min. 1.5-inch Insulfoam HD Composite	Flexible FAST or Flexible FAST DT (FULL)	None	N/A	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-270.0
C-17.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (FULL)	(Optional) Additional layers of base insulation	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-330.0
C-18.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (FULL)	Min 0.5-inch HP Recovery Board	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-330.0
C-19.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (FULL)	Min. 2-inch Polyiso HP-H Composite	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-330.0
C-20.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch InsulBase, SecurShield or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Flexible FAST (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-352.5
C-21.	Min. 2,500 psi structural concrete	0.5-inch EcoStorm VSH	Flexible FAST or Flexible FAST DT (FULL)	<u>None</u>	N/A	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-495.0

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

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)	Membrane	Application	
C-22.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	OB500	Min 0.5-inch HP Recovery Board	OB500	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-120.0
C-23.	Min. 2,500 psi structural concrete	Min. 1.0-inch Foamular 250	OB500	Min 0.5-inch HP Recovery Board	OB500	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-120.0
C-24.	Min. 2,500 psi structural concrete	Min. 2.0-inch, min. 1.0 pcf, Insulfoam	OB500	Min. 0.25-inch DensDeck or DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	OB500	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-120.0
C-25.	Min. 2,500 psi structural concrete	Min. 1.5-inch Polyiso HP-N or Polyiso HP-W	OB500	(Optional) Additional layers of base insulation	OB500	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-150.0
C-26.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	OB500	Min. 0.25-inch DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	OB500	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-150.0
C-27.	Min. 2,500 psi structural concrete	Min. 0.5-inch InsulBase or SecurShield	OB500	(Optional) Additional layers of base insulation	OB500	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-157.5
C-28.	Min. 2,500 psi structural concrete	Min. 1.0-inch Styrofoam Roofmate or Highload 60	OB500	Min. 0.25-inch DensDeck, DensDeck Prime	OB500	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-232.5
C-29.	Min. 2,500 psi structural concrete	Min. 1.0-inch Foamular 250	OB500	Min. 0.25-inch DensDeck or DensDeck Prime	OB500	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-277.5
MEMBRANE APPLIED IN AQUA BASE 120 BA ADHESIVE:								
C-30.	Min. 2,500 psi structural concrete (primed)	(Optional) Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Hot Asphalt	Min. 0.5-inch HP Recovery Board	Hot Asphalt	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-90.0
C-31.	Min. 2,500 psi structural concrete (primed)	Min. 0.5-inch InsulBase or SecurShield	Hot Asphalt	(Optional) Additional layers of base insulation	Hot Asphalt	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-157.5
C-32.	Min. 2,500 psi structural concrete (primed)	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Hot Asphalt	(Optional) Additional layers of base insulation	Hot Asphalt	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-165.0

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

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)	Membrane	Application	
C-33.	Min. 2,500 psi structural concrete (primed)	(Optional) Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Hot Asphalt	Min. 0.25-inch DensDeck Prime	Hot Asphalt	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-165.0
C-34.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (RIBBON)	Min. 0.5-inch HP Recovery Board	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-90.0
C-35.	Min. 2,500 psi structural concrete	Min. 1-inch Insulfoam I	Flexible FAST or Flexible FAST DT (RIBBON)	Min. 0.5-inch HP Recovery Board	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-90.0
C-36.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulLam (WF)	Flexible FAST or Flexible FAST DT (FULL)	None	N/A	Sure-Seal FR Nonreinforced, Sure-White, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-90.0
C-37.	Min. 2,500 psi structural concrete	Min. 0.5-inch InsulBase or SecurShield	Flexible FAST or Flexible FAST DT (RIBBON)	(Optional) Additional layers of base insulation	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-157.5
C-38.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (RIBBON)	(Optional) Additional layers of base insulation	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-165.0
C-39.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (RIBBON)	Min. 0.25-inch DensDeck Prime	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-165.0
C-40.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (FULL)	(Optional) Additional layers of base insulation	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Aqua Base 120 BA	-232.5
C-41.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	OB500	(Optional) Additional layers of base insulation	OB500	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-105.0
C-42.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	OB500	Min. 0.5-inch HP Recovery Board	OB500	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-90.0
C-43.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	OB500	Min. 0.25-inch DensDeck Prime	OB500	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-150.0
MEMBRANE APPLIED IN EPDM X-23 LOW-VOC BONDING ADHESIVE:								

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

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)	Membrane	Application	
C-44.	Min. 2,500 psi structural concrete	Min. 0.5-inch InsulBase or SecurShield	Flexible FAST or Flexible FAST DT (RIBBON)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	EPDM x-23 Low-VOC Bonding Adhesive	-75.0
C-45.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulLam (GYP)	Flexible FAST or Flexible FAST DT (FULL)	None	N/A	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	EPDM x-23 Low-VOC Bonding Adhesive	-75.0
C-46.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch SecurShield or H-Shield CG	Flexible FAST or Flexible FAST DT (RIBBON)	Min. 1.5-inch SecurShield HD Composite or H-Shield HD Composite	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	EPDM x-23 Low-VOC Bonding Adhesive	-285.0
C-47.	Min. 2,500 psi structural concrete	Min. 1.5-inch Insulfoam HD Composite	Flexible FAST or Flexible FAST DT (FULL)	None	N/A	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	EPDM x-23 Low-VOC Bonding Adhesive	-472.5
C-48.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch SecurShield or H-Shield CG	Flexible FAST or Flexible FAST DT (FULL)	Min. 1.5-inch SecurShield HD Composite or H-Shield HD Composite	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	EPDM x-23 Low-VOC Bonding Adhesive	-495.0
MEMBRANE APPLIED IN FLEXIBLE FAST OR FLEXIBLE FAST DUAL-TANK:								
C-49.	Min. 2,500 psi structural concrete	(Optional) Min. 0.5-inch InsulBase, SecurShield or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Flexible FAST or Flexible FAST DT (RIBBON)	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 0.5-inch EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (RIBBON, 6-inch o.c.)	-90.0
C-50.	Min. 2,500 psi structural concrete	Min. 1-inch Insulfoam I	Flexible FAST or Flexible FAST DT (RIBBON)	Min. 0.5-inch HP Recovery Board	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-142.5
C-51.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (RIBBON)	Min. 0.5-inch HP Recovery Board	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-157.5
C-52.	Min. 2,500 psi structural concrete	Min. 1.5-inch Kingspan GreenGuard or Min. 1.0-inch Dow STYROFOAM ROOFMATE	Flexible FAST or Flexible FAST DT (RIBBON)	Min. 0.5-inch HP Recovery Board	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-157.5
C-53.	Min. 2,500 psi structural concrete	Min. 0.5-inch InsulBase, SecurShield	Flexible FAST or Flexible FAST DT (RIBBON)	Insulation: (Optional) Additional layer(s) base insulation Coverboard: Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-157.5

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

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)	Membrane	Application	
C-54.	Min. 2,500 psi structural concrete	(Optional) InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (FULL)	Polyiso HP-NB, StormBase, H-Shield NB	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-187.5
C-55.	Min. 2,500 psi structural concrete	Min. 0.5-inch HP Recovery Board	Flexible FAST or Flexible FAST DT (RIBBON)	None	N/A	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-202.5
C-56.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (RIBBON)	Min. 7/16-inch APA rated OSB or min. 0.25-inch DensDeck or DensDeck Prime	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-240.0
C-57.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulLam (WF)	Flexible FAST or Flexible FAST DT (FULL)	None	N/A	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-255.0
C-58.	Min. 2,500 psi structural concrete	Min. 1-inch Insulfoam I	Flexible FAST or Flexible FAST DT (FULL)	Min. 0.5-inch HP Recovery Board	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-300.0
C-59.	Min. 2,500 psi structural concrete	Min. 1-inch FM Approved EPS (BASF, NOVA, or Huntsman beads)	Flexible FAST or Flexible FAST DT (FULL)	Min. 0.5-inch HP Recovery Board	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-322.5
C-60.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (FULL)	Min. 0.5-inch HP Recovery Board	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-330.0
C-61.	Min. 2,500 psi structural concrete	Min. 1.5-inch Kingspan GreenGuard or Min. 1.0-inch Dow STYROFOAM ROOFMATE	Flexible FAST or Flexible FAST DT (FULL)	Min. 0.5-inch HP Recovery Board	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-330.0
C-62.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch InsulBase, SecurShield or Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	Flexible FAST (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-352.5
C-63.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (FULL)	Min. 7/16-inch APA rated OSB or min. 0.25-inch DensDeck or DensDeck Prime	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-457.5

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

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)	Membrane	Application	
C-64.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulLam (OSB)	Flexible FAST or Flexible FAST DT (FULL)	None	N/A	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-457.5
C-65.	Min. 2,500 psi structural concrete	EcoStorm VSH	Flexible FAST or Flexible FAST DT (FULL)	None	N/A	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-495.0
MEMBRANE APPLIED IN HOT ASPHALT:								
C-66.	Min. 2,500 psi structural concrete (primed)	(Optional) Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	HA	Min. 0.5-inch HP Recovery Board	HA	Sure-Seal AFX	Hot Asphalt	-150.0
MEMBRANE APPLIED IN CARLISLE COLD APPLIED ADHESIVE:								
C-67.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (RIBBON)	Min. 0.5-inch HP Recovery Board	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal AFX	Carlisle Cold Applied Adhesive	-157.5
C-68.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (RIBBON)	Min. 0.25-inch DensDeck or DensDeck Prime	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal AFX	Carlisle Cold Applied Adhesive	-240.0
C-69.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (RIBBON)	(Optional) Additional layers of base insulation	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal AFX	Carlisle Cold Applied Adhesive	-240.0
C-70.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (FULL)	Min. 0.5-inch HP Recovery Board	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal AFX	Carlisle Cold Applied Adhesive	-330.0
C-71.	Min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (FULL)	Min. 0.25-inch DensDeck or DensDeck Prime	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal AFX	Carlisle Cold Applied Adhesive	-375.0
C-72.	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Flexible FAST or Flexible FAST DT (FULL)	(Optional) Additional layers of base insulation	Flexible FAST or Flexible FAST DT (FULL)	Sure-Seal AFX	Carlisle Cold Applied Adhesive	-457.5

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

System No.	Deck (Note 1)	Roof Cover (Note 15)		MDP (psf)
		Membrane	Application	
C-73.	Min. 2,500 psi structural concrete	Sure-White	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-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)	Roof Cover (Note 15)		MDP (psf)
		Membrane	Application	
C-74.	Min. 2,500 psi structural concrete	Sure-Tough or Sure-Tough FR	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-240.0
C-75.	Min. 2,500 psi structural concrete	Sure-Seal FR Nonreinforced	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-315.0
C-76.	Min. 2,500 psi structural concrete	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL).	-495.0
C-77.	Min. 2,500 psi structural concrete	Sure-Seal AFX	Hot Asphalt	-97.5
C-78.	Min. 2,500 psi structural concrete primed with CCW-702 or D41 primer	Sure-Seal AFX	Hot Asphalt	-495.0

TABLE 4A: LIGHTWEIGHT CONCRETE OVER STEEL OR STRUCTURAL CONCRETE 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)	LWC (Note 14)	Anchor Sheet			Insulation			Roof Cover (Note 15)	MDP (psf)
			Type	Fasteners	Attach	Base	Top	Attach (Notes 6,7,8)		
ELASTIZELL (NOA 23-0817.05):										
LWC-1	Min. 22 ga., Type B, Grade 33 vented steel or min. 2,500 psi structural concrete	Min. 250 psi, Min. 2-inch thick, Elastizell Range II LWIC	Johns Manville Perma Ply 28	OMG CR Assembled Base Sheet Fasteners	9-inch o.c. in the 3-inch side lap and 9-inch o.c. in two staggered rows in the center of the sheet	Min. 1.0-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Min. 1.0-inch HP Recovery Board	Hot asphalt	Sure-Seal AFX / Hot asphalt	-45.0

TABLE 4B: LIGHTWEIGHT CONCRETE OVER STEEL OR STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

System No.	Deck (Note 1)	LWC (Note 14)		Roof Cover (Note 15)		MDP (psf)
		Type	Surface Treatment	Membrane	Application	
CELCORE (FL2037):						
MEMBRANE APPLIED IN FLEXIBLE FAST OR FLEXIBLE FAST DUAL-TANK:						
LWC-2	Min. 22 ga., Type BV, Grade 33 steel; max. 6 ft spans	Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete.	(Optional) Celcore PVA Curing Compound	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-60.0
LWC-3	Min. 22 ga., Type BV, Grade 33 steel; max. 4 ft spans.	Min. 38 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture.	Celcore PVA Curing Compound	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-67.5
LWC-4	Min. 22 ga., Type BV, Grade 33 steel; max. 6 ft spans	Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete. When walkable, LWIC is attached with Carlisle HP Fasteners & Insulation Plates at a density of 1 per 9 ft².	(Optional) Celcore PVA Curing Compound	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-67.5
LWC-5	Min. 22 ga., Type BV, Grade 33 steel; max. 6 ft spans	Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete. When walkable, LWIC is attached with Carlisle HP Fasteners & Insulation Plates at a density of 1 per 1.0 ft².	(Optional) Celcore PVA Curing Compound	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-120.0
ELASTIZELL (NOA 23-0817.05):						
MEMBRANE APPLIED IN FLEXIBLE FAST OR FLEXIBLE FAST DUAL-TANK:						
LWC-6	Min. 22 ga., Type BV, Grade 33 steel; max. 6 ft spans.	Min. 27 pcf wet cast density, min. 250 psi, min. 2-inch thick, Elastizell Range II LWIC	None	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-30.0
LWC-7	Min. 22 ga., Type BV, Grade 33 steel; max. 5 ft spans.	Min. 27 pcf wet cast density, min. 250 psi, min. 2-inch thick, Elastizell Range II LWIC	None	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-45.0
LWC-8	Min. 22 ga., Type BV, Grade 33 steel; max. 5 ft spans; primed with Zell Bonding Agent.	Min. 27 pcf wet cast density, min. 250 psi, min. 2-inch thick, Elastizell Range II LWIC	None	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-60.0
LWC-9	Min. 2,500 psi structural concrete	Min. 27 pcf wet cast density, min. 250 psi, min. 2-inch thick, Elastizell Range II LWIC	None	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-90.0

TABLE 5A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

^A The reported MDP documents the allowable maximum design pressure of the new insulation, coverboard and roof cover when adhered to the substrate, irrespective of the deck type (See Note 1) or performance of the substrate (See Note 12). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (Note 1 , Note 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf) ^A
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Membrane	Application	
MEMBRANE APPLIED IN CAV-GRIP III ADHESIVE/PRIMER OR SURE-SEAL 90-8-30A:								
R-1	Existing asphaltic BUR	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Hot Asphalt	(Optional) Additional layers of base insulation	Hot Asphalt	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-330.0
R-2	Existing asphaltic BUR	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Hot Asphalt	Min 0.5-inch HP Recovery Board	Hot Asphalt	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-330.0
R-3	Existing asphaltic BUR	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Hot Asphalt	Min. 0.25-inch DensDeck, DensDeck Prime	Hot Asphalt	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-352.5
R-4	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	Min. 1-inch InsulBase, SecurShield	Flexible FAST or Flexible FAST DT (RIBBON)	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : (Optional) Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-167.5
R-5	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 1-inch InsulBase, SecurShield	Flexible FAST or Flexible FAST DT (RIBBON, 6-inch o.c.)	<u>Insulation</u> : (Optional) Additional layer(s) base insulation <u>Coverboard</u> : (Optional) Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-167.5
R-6	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON)	None	N/A	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-302.5

TABLE 5A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

^A The reported MDP documents the allowable maximum design pressure of the new insulation, coverboard and roof cover when adhered to the substrate, irrespective of the deck type (See Note 1) or performance of the substrate (See Note 12). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (Note 1 , Note 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf) ^A
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Membrane	Application	
R-7	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON, 6-inch o.c.)	None	N/A	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-302.5
R-8	Existing asphaltic BUR or mineral surface cap	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	OB500	(Optional) Additional layers of base insulation	OB500	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-120.0
R-9	Existing asphaltic BUR or mineral surface cap	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	OB500	Min 0.5-inch HP Recovery Board or min. 0.25-inch DensDeck or DensDeck Prime	OB500	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-120.0
R-10	Existing asphaltic BUR or mineral surface cap	Min. 1.0-inch Foamular 250 or Styrofoam Roofmate or Highload 60 or min. 2.0-inch, min. 1.0 pcf, Insulfoam	OB500	Min 0.5-inch HP Recovery Board or min. 0.25-inch DensDeck or DensDeck Prime	OB500	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-120.0
R-11	Existing asphaltic BUR or mineral surface cap	Min. 1.0-inch Foamular 250	OB500	Min. 0.25-inch DensDeck or DensDeck Prime	OB500	Sure-Seal FR Nonreinforced, Sure-Tough, Sure-Tough FR, Sure-White or Sure-White Reinforced EPDM	CAV-GRIP III Adhesive/Primer or Sure-Seal 90-8-30A	-120.0
MEMBRANE APPLIED IN AQUA BASE 120 BA ADHESIVE:								
R-12	Existing asphaltic BUR	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Hot Asphalt	(Optional) Additional layers of base insulation	Hot Asphalt	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-165.0
R-13	Existing asphaltic BUR	(Optional) Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Hot Asphalt	Min. 0.5-inch HP Recovery Board	Hot Asphalt	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-90.0
R-14	Existing asphaltic BUR	(Optional) Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	Hot Asphalt	Min. 0.25-inch DensDeck Prime	Hot Asphalt	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-165.0

TABLE 5A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

^A The reported MDP documents the allowable maximum design pressure of the new insulation, coverboard and roof cover when adhered to the substrate, irrespective of the deck type (See Note 1) or performance of the substrate (See Note 12). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (Note 1 , Note 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf) ^A
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Membrane	Application	
R-15	Existing asphaltic BUR or mineral surface cap	Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	OB500	(Optional) Additional layers of base insulation	OB500	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-105.0
R-16	Existing asphaltic BUR or mineral surface cap	(Optional) Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	OB500	Min. 0.5-inch HP Recovery Board	OB500	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-90.0
R-17	Existing asphaltic BUR or mineral surface cap	(Optional) Min. 1.5-inch InsulBase, SecurShield, Polyiso HP-N or Polyiso HP-W	OB500	Min. 0.25-inch DensDeck Prime	OB500	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	Aqua Base 120 BA	-150.0
MEMBRANE APPLIED IN EPDM x-23 LOW-VOC BONDING ADHESIVE:								
R-18	Existing asphaltic BUR or mineral surface cap	Min. 0.5-inch InsulBase or SecurShield	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	EPDM x-23 Low-VOC Bonding Adhesive	-75.0
R-19	Existing asphaltic BUR or mineral surface cap	Min. 1.5-inch InsulLam (GYP)	OB500	None	N/A	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	EPDM x-23 Low-VOC Bonding Adhesive	-75.0
R-20	Existing asphaltic BUR or mineral surface cap	Min. 1.5-inch Insulfoam HD Composite	OB500	None	N/A	Sure-Seal FR Nonreinforced, Sure-Tough or Sure-Tough FR	EPDM x-23 Low-VOC Bonding Adhesive	-120.0
MEMBRANE APPLIED IN FLEXIBLE FAST OR FLEXIBLE FAST DUAL-TANK:								
R-21	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	(Optional) Min. 1-inch InsulBase, SecurShield	Flexible FAST or Flexible FAST DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (RIBBON, 6-inch o.c.)	-90.0
R-22	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 1-inch InsulBase, SecurShield	Flexible FAST or Flexible FAST DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (RIBBON, 6-inch o.c.)	-90.0

TABLE 5A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

^A The reported MDP documents the allowable maximum design pressure of the new insulation, coverboard and roof cover when adhered to the substrate, irrespective of the deck type (See Note 1) or performance of the substrate (See Note 12). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (Note 1 , Note 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Note 15)		MDP (psf) ^A
		Type	Attach (Notes 6,7,8)	Type	Attach (Notes 6,7,8)	Membrane	Application	
R-23	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON, 6-inch o.c.)	None	N/A	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (RIBBON, 6-inch o.c.)	-90.0
R-24	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	Min. 1-inch InsulBase, SecurShield	Flexible FAST or Flexible FAST DT (RIBBON)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> (Optional) Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-167.5
R-25	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 1-inch InsulBase, SecurShield	Flexible FAST or Flexible FAST DT (RIBBON, 6-inch o.c.)	<u>Insulation:</u> (Optional) Additional layer(s) base insulation <u>Coverboard:</u> (Optional) Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON)	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-167.5
R-26	Existing fully-adhered granule-surfaced asphalt built-up roof (BUR), smooth-surfaced asphalt built-up roof (BUR), granule-surfaced APP or SBS modified bitumen or smooth-surfaced SBS modified bitumen	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON)	None	N/A	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-302.5
R-27	Existing fully-adhered asphalt built-up roof (BUR) with flood coat & gravel (loose gravel removed)	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus or EcoStorm VSH	Flexible FAST or Flexible FAST DT (RIBBON, 6-inch o.c.)	None	N/A	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-302.5

TABLE 5B: RECOVER APPLICATIONS
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

^A The reported MDP documents the allowable maximum design pressure of the new roof cover when adhered to the substrate, irrespective of the deck type (See Note 1) or performance of the substrate (See Note 12).
The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (Note 1 , Note 12)	Roof Cover (Note 15)		MDP (psf) ^A
		Membrane	Application	
R-28	Existing, fully-adhered EPDM	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (RIBBON, 12)	-30.0
R-29	Existing, fully-adhered asphaltic BUR	Sure-Seal AFX	Carlisle Cold Applied Adhesive	-60.0
R-30	Existing, fully-adhered EPDM	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (RIBBON, 6)	-75.0
R-31	Existing, fully-adhered EPDM	Sure-Seal FleeceBACK or Sure-White FleeceBACK	Flexible FAST or Flexible FAST DT (FULL)	-315.0