



NEMO|etc.

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EVALUATION REPORT

Carlisle SynTec Systems

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

Evaluation Report C33680.09.10-R21

FL14083-R21

Date of Issuance: 09/08/2010

Revision 21: 06/10/2019

SCOPE:

This Evaluation Report is issued under **Rule 61G20-3** and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code. The product described herein has been evaluated for compliance with the **6th Edition (2017) Florida Building Code** sections noted herein.

DESCRIPTION: Carlisle Sure-Weld TPO Single Ply Roof Systems

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

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

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

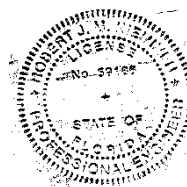
INSPECTION: Upon request, a copy of this entire Evaluation Report shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This Evaluation Report consists of pages 1 through 5, plus 74-pages of Appendix.

Prepared by:

Robert J.M. Nieminen, P.E.

Florida Registration No. 59166, Florida DCA ANE1983



The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 06/10/2019. This does not serve as an electronically signed document.

CERTIFICATION OF INDEPENDENCE:

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

ROOFING SYSTEMS EVALUATION:

1. SCOPE:

Product Category: Roofing
Sub-Category: Single Ply Roof Systems
Compliance Statement: Carlisle Sure-Weld TPO Single Ply Roof Systems, as produced by Carlisle SynTec Systems, have demonstrated compliance with the following sections of the 6th Edition (2017) Florida Building Code through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

2. STANDARDS:

<u>Section</u>	<u>Property</u>	<u>Standard</u>	<u>Year</u>
1504.3.1	Wind	FM 4474	2011
1504.3.1	Wind	UL 1897	2012
1504.7	Impact	FM 4470	2012
1507.13.2	Physical Properties	ASTM D6878	2011
TAS 110	Physical Properties	TAS 131	1995

3. REFERENCES:

<u>Entity</u>	<u>Exam</u>	<u>Reference</u>	<u>Date</u>	<u>Entity</u>	<u>Exam</u>	<u>Reference</u>	<u>Date</u>
ACRC (TST4671)	Wind	07-051	08/29/2007	FM App (TST1867)	FM 4474	3031350	09/27/2007
ACRC (TST4671)	Wind	07-059	10/15/2007	FM App (TST1867)	FM 4474	3030536	10/09/2007
ACRC (TST4671)	Wind	10-009	05/19/2010	FM App (TST1867)	FM 4474	3028655	11/09/2007
ACRC (TST4671)	Wind	10-018	08/25/2010	FM App (TST1867)	FM 4474	3026951	01/21/2008
ACRC (TST4671)	Wind	10-019	08/25/2010	FM App (TST1867)	FM 4474	3031349	05/13/2008
ACRC (TST4671)	Wind	11-034	06/28/2011	FM App (TST1867)	FM 4474	3031765	07/21/2008
ACRC (TST4671)	Wind	11-035	06/28/2011	FM App (TST1867)	FM 4474	3029840	09/08/2008
ACRC (TST4671)	Wind	11-036	06/29/2011	FM App (TST1867)	FM 4474	3033217	12/08/2008
ACRC (TST4671)	Wind	11-037	06/29/2011	FM App (TST1867)	FM 4474	3034985	12/15/2008
ACRC (TST4671)	Wind	15-002	03/30/2015	FM App (TST1867)	FM 4474	3034066	04/14/2009
ACRC (TST4671)	Wind	15-008	04/02/2015	FM App (TST1867)	FM 4474	3034776	08/07/2009
ACRC (TST4671)	Wind	15-009	04/06/2015	FM App (TST1867)	FM 4474	3037400	09/02/2009
ACRC (TST4671)	Wind	15-011	07/07/2015	FM App (TST1867)	FM 4474	3033356	10/09/2009
ACRC (TST4671)	Wind	15-012	07/07/2015	FM App (TST1867)	FM 4474	3034297	11/13/2009
ACRC (TST4671)	Wind	15-015	07/09/2015	FM App (TST1867)	FM 4474	3040639	08/11/2010
ACRC (TST4671)	Wind	15-016	07/09/2015	FM App (TST1867)	FM 4474	3036762	03/08/2011
ACRC (TST4671)	Wind	15-018	07/10/2015	FM App (TST1867)	FM 4474	3041535	06/08/2011
ACRC (TST4671)	Wind	15-019	07/14/2015	FM App (TST1867)	FM 4474	3039340	06/24/2011
ACRC (TST4671)	Wind	15-020	07/14/2015	FM App (TST1867)	FM 4474	3043858	08/25/2011
ACRC (TST4671)	Wind	15-021	07/15/2015	FM App (TST1867)	FM 4474	3041797	10/13/2011
ACRC (TST4671)	Wind	15-037	12/28/2015	FM App (TST1867)	FM 4474	3039073	11/22/2011
ACRC (TST4671)	Wind	15-038	12/28/2015	FM App (TST1867)	FM 4470	1X9A4.AM	12/06/2011
ACRC (TST4671)	Wind	15-041	12/30/2015	FM App (TST1867)	FM 4470	3000919	12/06/2011
ACRC (TST4671)	Wind	15-043	01/04/2016	FM App (TST1867)	FM 4470	3041535	12/06/2011
ACRC (TST4671)	Wind	15-045	01/11/2016	FM App (TST1867)	FM 4470	3044748	12/06/2011
ACRC (TST4671)	Wind	15-046	01/11/2016	FM App (TST1867)	FM 4474	3040260	02/27/2012
ACRC (TST4671)	Wind	15-047	01/12/2016	FM App (TST1867)	FM 4474	3041799	03/29/2012
ATI (TST1588)	FM 4470	01-37050.01	03/13/2000	FM App (TST1867)	FM 4474	3043824	04/06/2012
ATI (TST1588)	FM 4470	01-39152.01	03/28/2001	FM App (TST1867)	FM 4474	3039762	09/07/2012
ATI (TST1588)	Physicals	01-37490.01	05/26/2004	FM App (TST1867)	FM 4474	3047327	09/13/2012
ATI (TST1588)	FM 4470	63524.01-111-47	03/16/2006	FM App (TST1867)	FM 4474	3040639	09/18/2012
ATI (TST1588)	FM 4470	76506.01-111-47	09/06/2007	FM App (TST1867)	FM 4474	3043858	09/25/2012
ATI (TST1588)	FM 4470	77891.01-111-47	10/26/2007	FM App (TST1867)	FM 4474	3042075	10/23/2012
ATI (TST1588)	FM 4474	C1141.01-109-18	09/13/2012	FM App (TST1867)	FM 4474	3045953	02/13/2013
ATI (TST1588)	TAS 114	D7772.01-109-18	07/09/2014	FM App (TST1867)	FM 4474	797 (ribbon HP-NB)	04/25/2013
ATI (TST1588)	TAS 114	D7772.02-109-18	07/14/2014	FM App (TST1867)	FM 4451	3049232	09/11/2013
ATI (TST1588)	TAS 114	E4981.01-109-18	02/26/2015	FM App (TST1867)	FM 4474	3049189	03/11/2014
CTL (TST1577)	FM 4474	CTLA-105R	10/13/2008	FM App (TST1867)	FM 4474	3048753	09/16/2014
CTL (TST1577)	FM 4474	CTLA-105R-1	10/13/2008	FM App (TST1867)	FM 4474	3051392 (data)	10/15/2014
CTL (TST1577)	FM 4474	CTLA-105R-2	10/13/2008	FM App (TST1867)	FM 4474	3054838	02/13/2015
CTL (TST1577)	FM 4474	CTLA-106R	10/16/2008	FM App (TST1867)	FM 4474	3055462	04/01/2015
CTL (TST1577)	FM 4474	CTLA-106R-1	10/16/2008	FM App (TST1867)	FM 4474	3053933	06/30/2015
CTL (TST1577)	FM 4474	CTLA-106R-2	10/16/2008	FM App (TST1867)	FM 4451	3054498	11/30/2015
CTL (TST1577)	FM 4474	CTLA-106R-3	10/16/2008	FM App (TST1867)	FM 4474	3050229	01/25/2016

Entity	Exam	Reference	Date	Entity	Exam	Reference	Date
CTL (TST1577)	FM 4474	CTLA-106R-4	10/16/2008	FM App (TST1867)	FM 4474	3058125	02/04/2016
CTL (TST1577)	TAS 117	CTLA 111R	01/13/2009	FM App (TST1867)	FM 4474	3055167	02/10/2016
ERD (TST 6049)	Physicals	U0215.05.06-1	05/30/2006	FM App (TST1867)	FM 4474	3055824	05/31/2016
ERD (TST 6049)	FM 4470	E9490.03.08	03/25/2008	FM App (TST1867)	FM 4474	3058058	11/04/2016
ERD (TST 6049)	Physicals	C32760.01.11	01/19/2011	FM App (TST1867)	FM 4474	RR206411	09/26/2018
ERD (TST 6049)	Physicals	A35880.04.12-R1	10/26/2012	FM App (TST1867)	FM 4474	3056745	09/28/2016
ERD (TST 6049)	Physicals	C46470.07.14-1A	07/16/2014	FM App (TST1867)	FM 4474	3058125	12/06/2016
ERD (TST 6049)	Physicals	C46470.07.14-1B	07/16/2014	FM App (TST1867)	FM 4474	3060914 (data)	02/06/2017
ERD (TST 6049)	Physicals	C46470.07.14-4-R1	07/21/2014	FM App (TST1867)	FM 4474	3062422 (data)	05/25/2017
ERD (TST 6049)	Physicals	C46470.07.14-2A	07/30/2014	FM App (TST1867)	FM 4470	3063373 (data)	10/10/2017
ERD (TST 6049)	Physicals	C46470.07.14-2B	07/30/2014	FM App (TST1867)	FM 4474	3063373 (data)	11/07/2017
ERD (TST 6049)	FM 4474	SC10010.02.16	02/29/2016	FM App (TST1867)	FM 4474	3062422 (data)	01/05/2018
ERD (TST 11294)	FM 4474	13380.01.17	01/27/2017	FM App (TST1867)	FM 4474	PR449852 (data)	03/29/2018
ERD (TST 6049)	FM 4474	CRL-SC13450.01.17	01/31/2017	FM App (TST1867)	FM 4474	3058463	05/22/2018
ERD (TST 6049)	Physicals	CRL-SC14240.17	03/21/2017	FM App (TST1867)	FM 4474	PR451012 (data)	09/11/2018
ERD (TST 11294)	FM 4474	CLT16160.08.17-1	08/28/2017	FM App (TST1867)	FM 4474	PR449651	09/25/2018
ERD (TST 11294)	FM 4474	CLT16160.08.17-2	08/28/2017	FM App (TST1867)	FM 4474	3063085	10/05/2018
FM App (TST1867)	FM 4470	3Z9A1.AM	10/15/1997	FM App (TST1867)	FM 4474	PR451012 (data)	10/11/2018
FM App (TST1867)	FM 4470	3001580	11/16/1998	FM App (TST1867)	FM 4474	PR452297 (data)	12/05/2018
FM App (TST1867)	FM 4470	3001522	03/26/1999	FM App (TST1867)	FM 4474	PR452297 (data)	12/06/2018
FM App (TST1867)	FM 4470	3003393	03/30/1999	FM App (TST1867)	FM 4474	PR451012 (data)	12/13/2018
FM App (TST1867)	FM 4470	3003337	06/11/1999	FM App (TST1867)	FM 4474	PR451812 (data)	01/04/2019
FM App (TST1867)	FM 4470	3006110	06/13/2001	FM App (TST1867)	FM 4474	PR452773 (data)	01/30/2019
FM App (TST1867)	FM 4470	3011329	06/10/2002	FM App (TST1867)	FM 4474	PR452773 (data)	02/01/2019
FM App (TST1867)	FM 4470	3012879	04/04/2003	FM App (TST1867)	FM 4474	PR451012 (data)	02/01/2019
FM App (TST1867)	FM 4470	3013584	06/27/2003	M-D (CER1592)	Wind Uplift	12-0216.01	03/08/2012
FM App (TST1867)	FM 4470	3014692	08/05/2003	M-D (CER1592)	Wind Uplift	13-0617.20	09/05/2013
FM App (TST1867)	FM 4470	3016355	09/15/2003	M-D (CER1592)	Wind Uplift	13-0307.02	09/26/2013
FM App (TST1867)	FM 4470	3019890	12/16/2004	NEMO (TST 6049)	Physicals	4-CRL-18-002.04.18-1	04/03/2018
FM App (TST1867)	FM 4474	3017662	06/07/2005	NEMO (TST 6049)	Physicals	4-CRL-18-002.04.18-2	04/03/2018
FM App (TST1867)	FM 4474	3023032	07/20/2005	NEMO (TST 6049)	Physicals	4-CRL-18-002.04.18-2A	04/03/2018
FM App (TST1867)	FM 4474	3018631	11/03/2005	NEMO (TST 6049)	FM 4474	4-CRL-18-003.05.18	05/15/2018
FM App (TST1867)	FM 4474	3023999	11/08/2005	NEMO (TST 6049)	FM 4474	CRL-SC16815.06.18	06/07/2018
FM App (TST1867)	FM 4474	3020845	01/25/2006	NEMO (TST 6049)	FM 4474	4L-CRL-18-003.12.18	12/01/2018
FM App (TST1867)	FM 4474	3021941	03/20/2006	NEMO (TST 6049)	FM 4474	4L-CEL-18-001.12.18	12/14/2018
FM App (TST1867)	FM 4474	3023340	03/20/2006	NEMO (TST 11294)	FM 4474	2-CRL-18-002.04.18	05/15/2018
FM App (TST1867)	FM 4474	3023458	07/18/2006	NEMO (TST 6049)	Criticality	4S-CRL-18-005.11.18-R1	01/17/2019
FM App (TST1867)	FM 4474	3024593	07/27/2006	NEMO (TST 6049)	FM 4474	2a-CRL-19-LWWUS-01.A	05/13/2019
FM App (TST1867)	FM 4474	3022174	09/25/2006	PRI CMT(TST5878)	FM 4474	CST-016-02-01	05/04/2011
FM App (TST1867)	FM 4474	3021235	06/01/2007	PRI CMT(TST5878)	FM 4474	CST-016-02-01	05/05/2011
FM App (TST1867)	FM 4474	3026964	07/25/2007	UL, LLC. (TST9628)	UL 1897	08CA15815	10/22/2008
FM App (TST1867)	FM 4474	3028438	08/22/2007	UL, LLC. (QUA9625)	QA	Service Confirmation	12/14/2018

4. PRODUCT DESCRIPTION:

The following roof covers are mechanically attached or adhered to Approved substrates using fasteners, stress plates and adhesives, as outlined in the Limitations / Conditions of Use herein.

- 4.1 **Sure-Weld** membranes are nominal 45-mil (1.1-mm) or 60-mil (1.5-mm) thick, polyester-scrim reinforced, thermoplastic olefin (TPO) single-ply roof membranes; meets ASTM D6878-11 & TAS 131.
- 4.2 **Sure-Weld EXTRA** membranes are nominal 72-mil (1.8-mm) or 80-mil (2.0-mm) thick, polyester-scrim reinforced, thermoplastic olefin (TPO), single-ply roof membranes; meets ASTM D6878-11 & TAS 131.
- 4.3 **Sure-Weld HS** membranes are nominal 60-mil (1.5-mm) thick, polyester-scrim reinforced, thermoplastic olefin (TPO) single-ply roof membranes; meets TAS 131.
- 4.4 **Sure-Weld FleeceBACK® FR** membrane is a variation of Sure-Weld 60-mil (1.5 mm), but with a carbon-fiber fleece on the back side for fire-rating considerations over wood deck; meets ASTM D6878-11 & TAS 131.
- 4.5 **Sure-Weld FleeceBACK 100, 115 or 135** membranes are nominal 45-mil (1.1-mm), 60-mil (1.5-mm) or 80-mil (2.0-mm) thick, respectively, polyester-scrim reinforced, thermoplastic olefin (TPO) single-ply roof membranes with a polyester fleece backing; meets ASTM D6878-11 & TAS 131.
- 4.6 **Sure-Weld AFX 120, AFX 135 or AFX 155** membranes are nominal 45-mil (1.1-mm), 60-mil (1.5-mm) or 80-mil (2.0-mm) thick, respectively, polyester-scrim reinforced, thermoplastic olefin (TPO) single-ply roof membranes with a polyester fleece backing formulated for hot asphalt application; meets ASTM D6878-11 & TAS 131.

- 4.7 **Sure-Weld SAT-TPO** membrane is a nominal 60-mil (1.5-mm) thick, polyester-scrim reinforced, thermoplastic olefin (TPO) single-ply roof membrane laminated to an elastomeric pressure-sensitive adhesive; meets TAS 131.
- 4.8 **Sure-Weld FleeceBACK® RL™ with RapidLock Technology** membranes are a variation of Sure-Weld membranes, but with VELCRO® Brand Securable Solutions fleece on the back side for use with InsulBase RL or SecurShield HD RL substrates; meets ASTM D6878-11 & TAS 131.
- 4.9 **SureMB 90TG Base** is a smooth-surfaced, fiberglass reinforced, SBS modified bitumen, torch-applied base membrane; meets ASTM D6163, Type 1, Grade S.

5. LIMITATIONS:

- 5.1 This is a building code evaluation. Neither NEMO|etc. nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.
- 5.2 This Evaluation Report is not for use in HVHZ jurisdictions.
- 5.3 Refer to a current UL Roofing Materials Directory for fire ratings of this product.
- 5.4 For steel deck installations, foam plastic insulation shall be separated from the building interior in accordance with **FBC 2603.4** unless the exceptions stated in **FBC 2603.4.1** and **2603.6** apply.
- 5.5 The roof system evaluation herein pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction. Load resistance of the roof deck shall be documented through proper codified and/or FBC Approval documentation.
- 5.6 For recover installations, the existing roof shall be examined in accordance with **FBC 1511**.
- 5.7 For mechanically attached insulation or membrane or strip-bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed the Zone 1 design pressure determined in accordance with FBC Chapter 16. Zones 2 and 3 shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are **ANSI/SPRI WD1**, **FM Loss Prevention Data Sheet 1-29**, **Roofing Application Standard RAS 117** and **Roofing Application Standard RAS 137**. Assemblies marked with an asterisk* carry the limitations set forth in **Section 2.2.10.1 of FM Loss Prevention Data Sheet 1-29 (January 2016)** for Zone 2/3 enhancements.
- 5.8 For assemblies with all components fully bonded in place, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with **FBC Chapter 16**. No rational analysis is permitted for these systems.
- 5.9 For mechanically attached insulation or membrane over existing roof decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing and analysis shall be in accordance with **ANSI/SPRI FX-1** or **Testing Application Standard TAS 105**.
- 5.10 For bonded insulation or membrane over existing substrates in a re-roof (tear off) or recover installation, the existing deck or existing roof surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with **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.
- 5.11 For bonded insulation or membrane over existing substrates in a recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the 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**.
- 5.12 Metal edge attachment (except gutters), shall be designed and installed for wind loads in accordance with FBC Chapter 16 and tested for resistance in accordance with **ANSI/SPRI ES-1** or **Roofing Application Standard RAS 111**, except the basic wind speed shall be determined from **FBC Figure 1609.3(1)**, **1609.3(2)** or **1609.3(3)**.

- 5.13 All products in the roof assembly shall have quality assurance in accordance with **FAC Rule 61G20-3**. For non-Carlisle components listed within wind uplift rated assemblies in Appendix 1, refer to the Product Approval of the component manufacturer.

6. INSTALLATION:

- 6.1 **Carlisle Sure-Weld TPO Single Ply Roof Systems** shall be installed in accordance with **Carlisle SynTec Systems** published installation instructions, subject to the Limitations / Conditions of Use noted herein.
- 6.2 System attachment requirements for wind load resistance are set forth in Appendix 1. "MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads, and reflects the ultimate passing pressure divided by 2 (the 2 to 1 margin of safety per **FBC 1504.9** has already been applied). Refer to **FBC 1609** for determination of design wind loads.
- 6.3 For mechanically fastened membrane systems (Type D) over profiled steel deck, membrane shall be installed running perpendicular to steel deck flutes.

7. BUILDING PERMIT REQUIREMENTS:

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

8. MANUFACTURING PLANTS:

Contact the noted QA agency for information on product locations covered by QA procedures in accordance with **FAC Rule 61G20-3**.

9. QUALITY ASSURANCE ENTITY:

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

- THE 74-PAGES THAT FOLLOW FORM PART OF THIS EVALUATION REPORT -

APPENDIX 1: ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE

TABLE	DECK	APPLICATION	TYPE	DESCRIPTION	PAGE
1A	Wood	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover	5
1B	Wood	New, Reroof (Tear-Off), Recover	C-2	Mechanically Attached Insulation, Plate-Bonded Roof Cover	6
1C	Wood	New, Reroof (Tear-Off), Recover	D-1	Insulated, Mechanically Attached Roof Cover	7
1D	Wood	New, Reroof (Tear-Off), Recover	D-3	Non-Insulated, Mechanically Attached Base Sheet, Bonded Roof Cover	7
1E	Wood	New, Reroof (Tear-Off), Recover	E-1	Non-Insulated, Mechanically Attached Roof Cover	8
1F	Wood	New, Reroof (Tear-Off), Recover	E-2	Non-Insulated, Mechanically Attached Base Sheet, Bonded Roof Cover	8
1G	Wood	New, Reroof (Tear-Off), Recover	G	Optional Insulation, Loose-Laid Roof Cover, Pressure Equalizing Vent	8
2A	Steel	New or Reroof (Tear-Off)	A-1A	Bonded Insulation, Bonded Roof Cover	9-10
2B	Steel or structural concrete	New, Reroof (Tear-Off), Recover	B-1	Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	11-16
2C	Steel or structural concrete	New, Reroof (Tear-Off), Recover	B-1	Mech. Attached Base Insulation, Bonded Top Insulation, Bonded Base Ply, Bonded Roof Cover	17
2D	Steel	New, Reroof (Tear-Off), Recover	B-2	Mech. Attached Thermal Barrier, Bonded Vapor Barrier, Bonded Insulation, Bonded Roof Cover	18
2E	Steel or structural concrete	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover	19-25
2F	Steel or structural concrete	New, Reroof (Tear-Off), Recover	C-1	Mechanically Attached Insulation, Bonded Base Ply, Bonded Roof Cover	26
2G	Steel	New, Reroof (Tear-Off), Recover	C-2	Mechanically Attached Insulation, Plate-Bonded Roof Cover	27-29
2H	Steel or structural concrete	New, Reroof (Tear-Off), Recover	D-1	Insulated, Mechanically Attached Roof Cover (Stress Plates)	30-35
2I	Steel or structural concrete	New, Reroof (Tear-Off), Recover	D-2	Insulated, Mechanically Attached Roof Cover (RUSS Strips)	36
3A	Structural concrete	New, Reroof (Tear-Off)	A-1A	Bonded Insulation, Bonded Roof Cover	37-45
3B	Structural concrete	New, Reroof (Tear-Off)	A-1A	Bonded Insulation, Bonded Base Ply, Bonded Roof Cover	46
3C	Structural concrete	New, Reroof (Tear-Off), Recover	C-2	Mechanically Attached Insulation, Plate-Bonded Roof Cover	47-48
3D	Structural concrete	New, Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	49
3E	Structural concrete	New, Reroof (Tear-Off), Recover	G	Optional Insulation, Loose-Laid Roof Cover, Pressure Equalizing Vent	49
4A	Lightweight concrete	New, Reroof (Tear-Off)	A-1A	Bonded Insulation, Bonded Roof Cover	50
4B	Lightweight concrete	New, Reroof (Tear-Off)	A-2	Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	50
4C	Lightweight concrete / steel	New, Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	51-54
4D	Lightweight concrete / concrete	New, Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	55-56
5A	Cementitious wood fiber	New, Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	57-58
5B	Cementitious wood fiber	New, Reroof (Tear-Off), Recover	A-2	Mech. Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	59
6A	Existing gypsum	Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	60-62
6B	Existing gypsum	Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	62
7A	Various	Recover	A-1	Bonded Insulation, Bonded Roof Cover	63-65
7B	Various	Recover	A-1	Bonded Insulation, Bonded Base Ply, Bonded Roof Cover	66
7C	Steel	Recover	C-2	Mechanically Attached Insulation, Plate-Bonded Roof Cover	67
7D	Steel	Recover	D-1	Insulated, Mechanically Attached Roof Cover	68
7E	Steel	Recover	D-2	Insulated, Mechanically Attached Roof Cover (RUSS Strips)	69
7F	Various	Recover	E-1	Non-Insulated, Mechanically Attached Roof Cover	70-71
7G	Various	Recover	F-1	Non-Insulated, Bonded Roof Cover	71
7H	Various	Recover	F-2	New LWC over Existing Roof, Bonded Roof Cover	72-73

The following notes apply to the systems outlined herein:

1. The roof system evaluation herein pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction. Load resistance of the roof deck shall be documented through proper codified and/or FBC Approval documentation. Appendix 2 provides guidance / limitations associated with use of fasteners from Hilti, Inc. to secure steel decking to structural members.
2. Unless otherwise noted, fasteners and stress plates for insulation attachment shall be as follows. Fasteners shall be of sufficient length for the following engagements:
 - Wood Deck: Sure-Seal HP Fastener with Sure-Seal Insulation Plate (aka, Carlisle's Insulation Fastening Plate). Minimum 1-inch wood penetration.
 - Steel Deck: Sure-Seal HP Fastener with Sure-Seal Insulation Plate (aka, Carlisle's Insulation Fastening Plate). Minimum ¾-inch steel penetration, engage the top flute of the steel deck.
 - Concrete Deck: Sure-Seal HD 14-10 Concrete Fastener, Carlisle CD-10 or HP Concrete Spike (1/4) with Sure-Seal Insulation Plate (aka, Carlisle's Insulation Fastening Plate). Minimum 1-inch embedment. Fasteners installed with a pilot hole in accordance with the fastener manufacturer's published installation instructions.
3. Unless otherwise noted, insulation may be any one layer or combination of polyisocyanurate, polystyrene, fiberboard, perlite and/or gypsum-based insulation board that meets the QA requirements of F.A.C. Rule 61G20-3 and is documented as meeting FBC 1505.1 and, for foam plastic, FBC Chapter 26, when installed with the roof cover.
4. Minimum 200 psi, minimum 2-inch thick lightweight insulating concrete may be substituted for rigid insulation board for System Type C-2 (plate bonded roof cover) or Type D (mechanically attached membrane), whereby the membrane fasteners are installed through the LWIC to engage the structural steel or concrete deck. The structural deck shall be of equal or greater type, thickness and strength to the steel and concrete deck listings. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction. Load resistance of the roof deck shall be documented through proper codified and/or FBC Approval documentation.
5. Preliminary insulation attachment for System Type D: Unless otherwise noted, refer to Section 2.2.10.1.3 of FM Loss Prevention Data Sheet 1-29 (January 2016) using fasteners & plates from Note 2. Carlisle INSUL-FAST Fastener may be used in place of Sure-Seal 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:
 - Hot asphalt: FULL-coverage at 25 lbs/square.
 - FAST 100 LV (FULL): FULL-coverage at 1 gal./square.
 - FAST 100 LV (RIBBON): Continuous 0.75 to 1-inch wide ribbons, 12-inch o.c.
 - FAST 5-Gallon Jug Adhesive (FAST 5-GJA): Continuous 0.75 to 1-inch wide ribbons, 12-inch o.c.
 - FAST Dual-Cartridge (FAST D-C) (FULL): Continuous 0.75 to 1-inch wide ribbons, 4-inch o.c.
 - FAST Dual-Cartridge (FAST D-C) (RIBBON): Continuous 0.75 to 1-inch wide ribbons, 12-inch o.c.
 - FAST Dual-Tank (FAST D-T) (FULL): Continuous 0.5-inch wide, wet-beads, 4-inch o.c.
 - FAST Dual-Tank (FAST D-T) (RIBBON): Continuous 0.5-inch wide, wet-beads, 12-inch o.c. Note: When installing multiple layers of insulation, FAST Dual-Tank beads shall be placed perpendicular to those placed for attachment of the previous layer
 - Flexible FAST (FULL): FULL-coverage at 1 gal./square.
 - Flexible FAST (RIBBON): Continuous 0.75 to 1-inch wide ribbons, 12-inch o.c.
 - Flexible FAST Dual-Tank (Flexible FAST D-T) (RIBBON): Continuous 0.75 to 1-inch wide ribbons, 12-inch o.c.
 - OlyBond 500 (OB500): Continuous 0.75 to 1-inch wide ribbons, 12-inch o.c. using PaceCart, SpotShot or Canisters. Note: OlyBond 500 Green may be used where OlyBond 500 is referenced.
 - *Note: When multiple layers(s) of insulation and/or coverboard are installed in ribbon-applied adhesive, boards shall be staggered from layer-to-layer.*
 - *Note: The maximum edge distance from the adhesive ribbon to the edge of the insulation board shall be not less than one-half the specified ribbons spacing.*
7. Unless otherwise noted, all insulations are flat stock or taper board of the minimum thickness noted. Tapered polyisocyanurate at the following thickness limitations may be substituted with the following Maximum Design Pressure (MDP) limitations. In no case shall these values be used to 'increase' the MDP listings in the tables; rather if MDP listing below meets or exceeds that listed for a particular system in the tables, then the thinner board listed below may be used as a drop-in for the equivalent thicker material listed in the table:
 - FAST 100 LV or Flexible FAST: MDP -157.5 psf (Min. 0.5-inch thick)
 - OlyBond 500 (OB500): MDP -187.5 psf (Min. 0.5-inch thick)
8. Bonded polyisocyanurate insulation boards shall be maximum 4 x 4 ft.

9. For mechanically attached components or partially bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed the Zone 1 design pressure determined in accordance with FBC Chapter 16, and Zones 2 and 3 shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are ANSI/SPRI WD1, FM Loss Prevention Data Sheet 1-29, Roofing Application Standard RAS 117 and Roofing Application Standard RAS 137. Assemblies marked with an asterisk* carry the limitations set forth in Section 2.2.10.1 of FM Loss Prevention Data Sheet 1-29 (January 2016) for Zone 2/3 enhancements.
10. For assemblies with all components fully bonded in place, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16, and no rational analysis is permitted.
11. For mechanically attached components over existing decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing and analysis shall be in accordance with ANSI/SPRI FX-1 or Testing Application Standard TAS 105.
12. For existing substrates in a bonded recover or re-roof installation, the existing roof surface or existing roof deck shall be examined for compatibility and bond performance with the selected adhesive, and the existing roof system (for recover) 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 ANSI/SPRI IA-1, ASTM E907, FM Loss Prevention Data Sheet 1-52 or Testing Application Standard TAS 124.
13. For System Type D, steel deck applications, the roof membrane shall be run with its length perpendicular to the steel deck flutes.
14. For Structural Concrete Deck or Recover Applications using System Type C-2 (Plate Bonded Roof Cover) or Type D (Mechanically Attached Roof Cover), the insulation is optional. Alternatively, min. 0.5-inch HP Recovery Board, SecurShield HD or H-Shield HD or min. 0.25-inch to 0.625-inch DensDeck, DensDeck Prime, SECUROCK Gypsum-Fiber Roof Board or SECUROCK Glass-Mat Roof Board or min. 3/8-inch Insulfoam R-Tech EPS or Fan-Fold may be used as a separator board, preliminarily attached prior to roof cover installation. The separator component shall be documented as meeting FBC 1505.1 and, for foam plastic, FBC Chapter 26, when installed with the roof cover in Recover applications.
15. Lightweight Insulating Concrete (LWC) shall be cast in accordance with FBC Section 1917 to the satisfaction of the Authority Having Jurisdiction. For systems where specific LWC is referenced, refer to current LWC Product Approval for specific deck construction and limitations. For systems where specific LWC is not referenced, the minimum design mix shall be 300 psi. In all cases, the minimum top-coat thickness is 2-inches. For LWC over structural concrete, reference is made to FBC Section 1917.4.1, Point 1. For "pre-existent" LWC 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). Unless otherwise noted, 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.
16. For adhered membrane systems, side laps shall be minimum 2-inch wide sealed with min. 1.5-inch heat weld. Unless otherwise noted, membrane adhesive application rates are as follows:

CARLISLE MEMBRANE / ADHESIVE COMBINATIONS			
MEMBRANE	ADHESIVE	METHOD	RATE
Sure-Weld or Sure-Weld HS	Sure-Weld Bonding Adhesive	Contact (both sides)	60 ft ² /gal
Sure-Weld or Sure-Weld HS	Aqua Base 120 Bonding Adhesive (Aqua Base 120)	Contact (both sides)	120 ft ² /gal
Sure-Weld or Sure-Weld HS	Low VOC Bonding Adhesive (LVOC BA)	Contact (both sides)	60 ft ² /gal
Sure-Weld or Sure-Weld HS	Sure-Seal 90-8-30A Bonding Adhesive	Contact (both sides)	60 ft ² /gal
Sure-Weld	CAV-GRIP III Low-VOC Adhesive/Primer (CAV-GRIP III LVOC-AP)	Contact (both sides)	110 ft ² /gal
Sure-Weld FleeceBACK	Aqua Base 120 Bonding Adhesive	Wet lay (substrate)	120 ft ² /gal
Sure-Weld FleeceBACK	HydroBond Water-Based Adhesive (HydroBond WB)	Wet lay (substrate)	100 to 133 ft ² /gal
Sure-Weld FleeceBACK	FAST 100LV, FAST Dual-Cartridge (FAST D-C), FAST Dual-Tank (FAST D-T), Flexible FAST, Flexible FAST Dual-Tank (Flexible FAST D-T)	Wet lay (substrate)	RIBBON spaced as noted herein or FULL Coverage = 1 gal/square or continuous ribbons, maximum 4-inch o.c.
Sure-Weld FleeceBACK	Flexible FAST Dual-Tank (Flexible FAST D-T)	Wet lay (substrate)	SPATTER at 3.5-4.0 lbs/square
Sure-Weld AFX	Carlisle Cold Applied Adhesive (C-CAA)	Wet lay (substrate)	1.5 gal/square
Sure-Weld AFX	Hot asphalt	Wet lay (substrate)	25 lbs/square
Sure-Weld FleeceBACK® RL™	VELCRO® Brand Securable Solutions	Only for use over InsulBase RL or SecurShield HD RL substrates. Roof cover is broomed into place and rolled with 150 lb roller to establish contact.	

17. For adhered membrane systems, unless otherwise noted:
 - Reference to "Sure-Weld" membrane below also includes "Sure-Weld EXTRA" and "Sure-Weld HS";

- Reference to “Sure-Weld FleeceBACK” includes 100, 115 and 135;
- Reference to “Sure-Weld AFX” includes AFX 120, AFX 135 and AFX 155

18. Vapor barrier options for use over **structural concrete deck** followed by adhesive-applied insulation carry the following Maximum Design Pressure (MDP) limitations. The **lesser** of the MDP listings below vs. those in Table 3A or 3B applies.

VAPOR BARRIER OPTIONS; STRUCTURAL CONCRETE DECK; FOLLOWED BY ADHESIVE-APPLIED INSULATION PER TABLE 3A OR 3B:					
Option #	Primer	Vapor Barrier		Insulation Adhesive	MDP (psf)
		Type	Application		
VB-1.	702 Primer	VapAir Seal 725TR	Self-adhering	FAST 100 LV, FAST 5-Gallon Jug Adhesive (FAST 5-GJA) or FAST Dual Cartridge (RIBBON, 12-inch o.c.)	-67.5
VB-2.	702 LV Primer	VapAir Seal 725TR	Self-adhering	FAST 100 LV, FAST 5-Gallon Jug Adhesive (FAST 5-GJA) or FAST Dual Cartridge (RIBBON, 12-inch o.c.)	-97.5
VB-3.	CAV-GRIP Primer	VapAir Seal 725TR	Self-adhering	FAST 100 LV, FAST 5-Gallon Jug Adhesive (FAST 5-GJA) or FAST Dual Cartridge (RIBBON, 12-inch o.c.)	-127.5
VB-4.	702 Primer, 702 LV Primer, CAV-GRIP Primer or CAV-GRIP III LVOC-AP	VapAir Seal 725TR	Self-adhering	Flexible FAST (RIBBONS, 12-inch o.c.)	-157.5
VB-5.	702 Primer, 702 LV Primer, CAV-GRIP Primer or CAV-GRIP III LVOC-AP	VapAir Seal 725TR	Self-adhering	Flexible FAST Dual Tank Adhesive (RIBBONS, 12-inch o.c.)	-172.5
VB-6.	702 Primer, 702 LV Primer or CAV-GRIP Primer	VapAir Seal 725TR	Self-adhering	FAST 100 LV, FULL-coverage at 1 gal/square.	-210.0
VB-7.	702 Primer, 702 LV Primer, CAV-GRIP Primer or CAV-GRIP III LVOC-AP	VapAir Seal 725TR	Self-adhering	Flexible FAST or Flexible FAST Dual Tank Adhesive (RIBBONS, 6-inch o.c.)	-270.0
VB-8.	CAV-GRIP Primer or CAV-GRIP III LVOC-AP	VapAir Seal 725TR	Self-adhering	Flexible FAST (FULL COVERAGE, 1 gal/square)	-427.5
VB-9.	ASTM D41	SureMB 90TG Base or 120TG Base	Torch-applied	FAST 100 LV or FAST Dual Cartridge (RIBBON, 12-inch o.c.)	-165.0
VB-10.	ASTM D41	SureMB 90 Base	Hot-asphalt	Hot asphalt at 25 lbs/square	-172.5
VB-11.	ASTM D41	SureMB 90TG Base or SureMB 120TG Base	Torch-applied	Hot asphalt at 25 lbs/square	-180.0
VB-12.	ASTM D41	SureMB 90TG Base or 120TG Base	Torch-applied	Flexible FAST or Flexible FAST Dual Tank Adhesive (RIBBON, 12-inch o.c.)	-307.5
VB-13.	ASTM D41	SureMB 90TG Base or 120TG Base	Torch-applied	Flexible FAST or Flexible FAST Dual Tank Adhesive (RIBBON, 6-inch o.c.)	-495.0

19. An optional air/vapor barrier of VapAir Seal MD, self-adhered to the deck or to a loose-laid FBC Approved gypsum thermal barrier, may be installed atop steel roof decks for System Types B-1, B-2, C-1, C-2, D-1 and D-2 prior to installation of the roof assemblies noted herein.
20. The following insulations are interchangeable within the scope of this Evaluation Report:
- H-Shield ⇔ H-Shield NH;
 - InsulBase ⇔ InsulBase NH;
 - H-Shield CG ⇔ H-Shield CG NH;
 - SecurShield ⇔ SecurShield NH;
 - H-Shield HD ⇔ H-Shield HD NH;
 - SecurShield HD ⇔ SecurShield HD NH;
 - H-Shield HD90 ⇔ H-Shield HD90 NH;
 - SecurShield HD Plus ⇔ SecurShield HD Plus NH.
21. “MDP” = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. Refer to FBC 1609 for determination of design wind loads.

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

System No.	Deck (Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover / Adhesive (Notes 16 & 17)	MDP (psf)
			Type	Fasteners	Attach		
SURE-WELD OR SURE-WELD HS MEMBRANE APPLICATIONS:							
W-1	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-Weld / CAV-GRIP III LVOC-AP or LVOC BA	-45.0*
W-2	Min. 19/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch ACfoam II, InsulBase, H-Shield, SecurShield, H-Shield CG or ENRGY 3	Note 2	1 per 2 ft²	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP or Sure-Weld BA	-45.0*
W-3	Min. 19/32-inch CDX plywood or wood plank at max. 24-inch spans; 8d ring shank nails, 6-inch o.c.	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Carlisle InsulFast with Sure-Seal Insulation Plate (aka, Carlisle's Insulation Fastening Plate)	1 per 2 ft²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-75.0
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (FULL BOND):							
W-4	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-Weld FleeceBACK / FAST 100 LV, Flexible FAST, FAST D-T (FULL)	-45.0*
W-5	Min. 19/32-inch CDX plywood or wood plank at max. 24-inch spans; 8d ring shank nails, 6-inch o.c.	(Optional) One or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Carlisle InsulFast with Sure-Seal Insulation Plate (aka, Carlisle's Insulation Fastening Plate)	1 per 2 ft²	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-T (FULL)	-75.0

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

System No.	Deck (Note 1)	Insulation Layer	Attachment		Roof Cover	MDP (psf)
			Fasteners	Density		
RHINO BOND SYSTEMS:						
W-6	Min. 15/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	1 per 6 ft ² (2 x 3 ft grid pattern)	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-22.5
W-7	Min. 15/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	1 per 4 ft ² (2 x 2 ft grid pattern)	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-30.0
W-8	Min. 15/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	1 per 4 ft ² (2 x 2 ft grid pattern)	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-37.5*
W-9	Min. 19/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	1 per 6 ft ² (2 x 3 ft grid pattern)	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-45.0*
W-10	Min. 15/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	1 per 2.67 ft ² (12 parts per 4x8 ft board)	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-45.0
W-11	Min. 15/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	6-inch o.c. in rows 60-inch o.c.	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-60.0
W-12	Min. 19/32-inch plywood or wood plank	(Optional) One or more layers, any combination, loose laid	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	1 per 2.67 ft ² (12 parts per 4x8 ft board)	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-67.5

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

System No.	Deck (Note 1)	Insulation Layer (Note 14)		Roof Cover						MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners	Fastener Spacing	Lap Width	Lap Spacing	Seam Weld	
W-13	Min. 19/32-inch CDX plywood or wood plank	One or more layers, any combination	Prelim. Attach	Sure-Weld, min. 60-mil or Sure-Weld FleeceBACK FR	Carlisle HP-X Fasteners and Piranha Plates	12-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-22.5
W-14	Min. 19/32-inch CDX plywood or wood plank	One or more layers, any combination	Prelim. Attach	Sure-Weld, min. 60-mil or Sure-Weld FleeceBACK FR	Carlisle HP-X Fasteners and Piranha Plates	6-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-45.0
W-15	Min. 19/32-inch CDX plywood or wood plank at max. 24-inch spans; 8d ring shank nails, 6-inch o.c.	One or more layers, any combination	Prelim. attach	Sure-Weld, min. 60-mil	Carlisle HP-XTRA Fasteners and Piranha XTRA Plates	12-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-45.0
W-16	Min. 19/32-inch plywood or wood plank at max. 24-inch spans; 8d ring shank nails 6-inch o.c. in the field; #10 ring shank nails 4-inch o.c. at the perimeter	One or more layers, any combination	Prelim. attach	Sure-Weld	Carlisle HP-X Fasteners and Piranha Plates or #15 Roofgrip with 2-3/8" Eyehook Seam Plates (AccuSeam)	6-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-52.5
W-17	Min. 19/32-inch plywood or wood plank at max. 24-inch spans; 8d ring shank nails 6-inch o.c. in the field; #10 ring shank nails 4-inch o.c. at the perimeter	One or more layers, any combination	Prelim. attach	Sure-Weld	Carlisle HP-X Fasteners and Piranha Plates or #15 Roofgrip with 2-3/8" Eyehook Seam Plates (AccuSeam)	6-inch o.c.	5.5-inch	66.5-inch o.c.	1.5-inch outside	-67.5

**TABLE 1D: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D-3: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

System No.	Deck (Note 1)	Insulation (Note 14)		Base Sheet			Roof Cover		MDP (psf)
		Type	Attach	Base Sheet	Fasteners	Attach	Membrane	Adhesive	
W-18	Min. 19/32-inch plywood at max. 24-inch spans; #10 x 2-inch wood screws, 6-inch o.c.	One or more layers, any combination	Loose-laid	Atlas Summit Synthetic Underlayment	Carlisle #12 InsulFast and Sure-Seal Seam Fastening Plates	12-inch o.c. at the 4-inch laps and 12-inch o.c. at three, equally spaced rows in the center of the sheet.	Sure-Weld SAT-TPO	Self-adhered	-120.0

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

System No.	Deck (Note 1)	Thermal Barrier		Roof Cover						MDP (psf)
		Type	Attach	Membrane	Fasteners	Fastener Spacing	Lap Width	Lap Spacing	Seam Weld	
W-19	Min. 19/32-inch CDX plywood or wood plank	(Optional) Any approved thermal barrier	Loose-laid	Sure-Weld, min. 60-mil or Sure-Weld FleeceBACK FR	Carlisle HP-X Fasteners and Piranha Plates	12-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-22.5
W-20	Min. 19/32-inch CDX plywood or wood plank	(Optional) Any approved thermal barrier	Loose-laid	Sure-Weld, min. 60-mil or Sure-Weld FleeceBACK FR	Carlisle HP-X Fasteners and Piranha Plates	6-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-45.0
W-21	Min. 19/32-inch CDX plywood or wood plank at max. 24-inch spans; 8d ring shank nails, 6-inch o.c.	(Optional) Any approved thermal barrier	Loose-laid	Sure-Weld, min. 60-mil	Carlisle HP-XTRA Fasteners and Piranha XTRA Plates	12-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-45.0
W-22	Min. 19/32-inch plywood at max. 24-inch spans; 8d ring shank nails, 6-inch o.c.	(Optional) Any approved thermal barrier	Loose-laid	Sure-Weld	Carlisle HP-X Fasteners and Piranha Plates or #15 Roofgrip with 2-3/8" Eyehook Seam Plates (AccuSeam) installed through wood sheathing to engage structural members	6-inch o.c.	5.5-inch	48-inch o.c. (over structural members)	1.5-inch outside	-75.0

**TABLE 1F: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE E-2: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER**

System No.	Deck (Note 1)	Thermal Barrier		Base Sheet			Roof Cover		MDP (psf)
		Type	Attach	Base Sheet	Fasteners	Attach	Membrane	Adhesive	
W-23	Min. 19/32-inch plywood at max. 24-inch spans; #10 x 2-inch wood screws, 6-inch o.c.	(Optional) Any approved thermal barrier	Loose-laid	Atlas Summit Synthetic Underlayment	Carlisle #12 InsulFast and Sure-Seal Seam Fastening Plates	12-inch o.c. at the 4-inch laps and 12-inch o.c. at three, equally spaced rows in the center of the sheet.	Sure-Weld SAT-TPO	Self-adhered	-120.0

**TABLE 1G: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE G: OPTIONAL INSULATION, LOOSE-LAID ROOF COVER, PRESSURE EQUALIZING VENT**

System No.	Deck (Note 1)	Air Barrier	Insulation	Underlayment	Roof Cover		MDP (psf)
					Type	Attach	
W-24	Min. 15/32-inch, Type B-C plywood	All joints and penetrations sealed with VapAir Seal 725TR in accordance with Carlisle and Acrylife requirements.	(Optional) Any fire classified roof insulation and/or coverboard combination, any thickness, loose-laid with staggered joints	12-inch wide strips of polypropylene, air permeable filter fabric, loose laid in a crossing pattern, connecting the V2T vents	Sure-Weld or Sure-Weld HS	Acrylife V2T installed in accordance with Acrylife instructions, spaced maximum 50 ft o.c.	-97.5

TABLE 2A: STEEL DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1A: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attach	Type	Attach	Membrane	Application	
SURE-WELD OR SURE-WELD HS MEMBRANE APPLICATIONS:								
SC-1	Min. 22 ga., type B, Grade 40 steel	Min. 1.5-inch InsulBase or H-Shield	Flexible FAST (RIBBON, 6-inch o.c.), Flexible FAST D-T (RIBBON, 6-inch o.c.)	(Optional) Additional layer(s) base insulation	Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	Sure-Weld	LVOC BA	-52.5
SC-2	Min. 22 ga., type B, Grade 40 steel	Min. 1.5-inch InsulBase or H-Shield	Flexible FAST (RIBBON, 6-inch o.c.), Flexible FAST D-T (RIBBON, 6-inch o.c.)	(Optional) Additional layer(s) base insulation	Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	Sure-Weld	Sure-Weld BA	-75.0
SC-3	Min. 22 ga., type B, Grade 40 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG	Flexible FAST (RIBBON, 6-inch o.c.), Flexible FAST D-T (RIBBON, 6-inch o.c.)	<u>Additional Insulation Layer(s):</u> (Optional) Min. 1.5-inch base insulation <u>Coverboard:</u> Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD or min. 1.5-inch SecurShield, H-Shield CG, SecurShield HD Composite or H-Shield HD Composite	Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	Sure-Weld	LVOC BA or Sure-Weld BA	-82.5
SC-4	Min. 22 ga., type B, Grade 40 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG and/or SecurShield HD Composite or H-Shield HD Composite	Flexible FAST (RIBBON, 6-inch o.c.), Flexible FAST D-T (RIBBON, 6-inch o.c.)	(Optional) Additional layer(s) base insulation, min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90	Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	Sure-Weld	CAV-GRIP III LVOC-AP	-82.5
SC-5	Min. 22 ga., type B, Grade 40 steel	(Optional) Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG	Flexible FAST (RIBBON, 6-inch o.c.), Flexible FAST D-T (RIBBON, 6-inch o.c.)	Min. 2-inch StormBase, H-Shield NB	FAST 100 LV, FAST 5-GJA, FAST D-C, FAST D-T, Flexible FAST (RIBBON)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-82.5
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (SPATTER BOND):								
SC-6	Min. 22 ga., type B, Grade 40 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG and/or SecurShield HD Composite, H-Shield HD Composite	Flexible FAST (RIBBON, 6-inch o.c.), Flexible FAST D-T (RIBBON, 6-inch o.c.)	(Optional) Additional layer(s) base insulation, min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90	Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	Sure-Weld FleeceBACK	Flexible FAST D-T (SPATTER)	-82.5
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (FULL BOND):								
SC-7	Min. 22 ga., type B, Grade 40 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG and/or SecurShield HD Composite, H-Shield HD Composite	Flexible FAST (RIBBON, 6-inch o.c.), Flexible FAST D-T (RIBBON, 6-inch o.c.)	(Optional) Additional layer(s) base insulation, min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90	Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	Sure-Weld FleeceBACK	FAST 100LV, FAST D-T, Flexible FAST or Flexible FAST D-T (FULL)	-82.5

TABLE 2A: STEEL DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1A: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attach	Type	Attach	Membrane	Application	
SC-8	Min. 22 ga., type B, Grade 40 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG and/or SecurShield HD Composite, H-Shield HD Composite	Flexible FAST (RIBBON, 6-inch o.c.), Flexible FAST D-T (RIBBON, 6-inch o.c.)	(Optional) Additional layer(s) base insulation, min. 0.25-inch DensDeck Prime or min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90	Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	Sure-Weld FleeceBACK	HydroBond W-B	-82.5
SC-9	Min. 22 ga., type B, Grade 40 steel	(Optional) Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG	Flexible FAST (RIBBON, 6-inch o.c.), Flexible FAST D-T (RIBBON, 6-inch o.c.)	Min. 2-inch StormBase, H-Shield NB	FAST 100 LV, FAST 5-GJA, FAST D-C, FAST D-T, Flexible FAST (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV or Flexible FAST (FULL)	-82.5
SURE-WELD FLEECEBACK® RL™ APPLICATIONS:								
SC-10	Min. 22 ga., type B, Grade 40 steel	Min. 1.5-inch InsulBase RL	Flexible FAST or Flexible FAST D-T (RIBBON 6-inch o.c.; every deck flange)	<u>None</u>	N/A	Sure-Weld FleeceBACK® RL™		-82.5
SC-11	Min. 22 ga., type B, Grade 40 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG	Flexible FAST or Flexible FAST D-T (RIBBON 6-inch o.c.; every deck flange)	<u>Additional Insulation Layer(s):</u> (Optional) Min. 1.5-inch base insulation <u>Coverboard:</u> Min. 0.5-inch SecurShield HD RL or min. 1.5-inch InsulBase RL	Flexible FAST or Flexible FAST D-T (RIBBON)	Sure-Weld FleeceBACK® RL™		-82.5

TABLE 2B: 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 / Adhesive (Notes 16 & 17)	MDP (psf)
		Type	Fastener	Attach	Type	Attach		
SURE-WELD OR SURE-WELD HS MEMBRANE APPLICATIONS:								
SC-12	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 2.0-inch Insulfoam VIII	Note 2	1 per 2.7 ft²	Min. 1.5-inch Insulam (OSB)	Flexible FAST, FAST D-T (RIBBON, 6-inch o.c.)	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP or Sure-Weld BA	-37.5*
SC-13	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG	Note 2	1 per 3.2 ft²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV, Flexible FAST, FAST 5-GJA, FAST D-T (RIBBON or FULL)	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*
SC-14	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 2.0-inch Insulfoam VIII	Note 2	1 per 2.0 ft²	Min. 2.0-inch Insulfoam HD Composite	Flexible FAST, FAST D-T (RIBBON, 6-inch o.c.)	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*
SC-15	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	InsulFast with Sure-Seal Insulation Plate (aka, Carlisle’s Insulation Fastening Plate)	1 per 1.78 ft²	Min. 0.5-inch SecurShield HD or H-Shield HD	FAST D-T (RIBBON, 6-inch o.c.)	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Seal 90-8-30A BA	-52.5
SC-16	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 1.78 ft²	Min. 0.5-inch SecurShield HD or H-Shield HD	FAST D-T (RIBBON, 6-inch o.c.)	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Seal 90-8-30A BA	-52.5
SC-17	Min. 22 ga., type B, Grade 33 steel	Min. 2-inch InsulBase, H-Shield, SecurShield, H-Shield CG	InsulFast with Sure-Seal Insulation Plate (aka, Carlisle’s Insulation Fastening Plate)	1 per 1.78 ft²	Min. 0.5-inch SecurShield HD or H-Shield HD	Flexible FAST (RIBBON, 6-inch o.c.)	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-60.0
SC-18	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 1.78 ft²	Min. 0.5-inch SecurShield HD or H-Shield HD	Flexible FAST (RIBBON, 6-inch o.c.)	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-60.0
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. 3.0-inch Insulfoam VIII	Note 2	1 per 2.0 ft²	Min. 1.5-inch Insulam (OSB)	FAST 100 LV, FAST D-T (RIBBON, 6-inch o.c.)	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP or Sure-Weld BA	-75.0
SC-20	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	InsulFast with Sure-Seal Insulation Plate (aka, Carlisle’s Insulation Fastening Plate)	1 per 1.33 ft²	Min. 0.5-inch SecurShield HD or H-Shield HD	Flexible FAST, FAST D-T (RIBBON, 4-inch o.c.)	Sure-Weld / Sure-Seal 90-8-30A BA	-75.0
SC-21	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 1.33 ft²	Min. 0.5-inch SecurShield HD or H-Shield HD	Flexible FAST, FAST D-T (RIBBON, 4-inch o.c.)	Sure-Weld / Sure-Seal 90-8-30A BA	-75.0
SC-22	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	InsulFast with Sure-Seal Insulation Plate (aka, Carlisle’s Insulation Fastening Plate)	1 per 1.33 ft²	Min. 0.5-inch SecurShield HD or H-Shield HD	Flexible FAST, FAST D-T (RIBBON, 4-inch o.c.)	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-82.5

TABLE 2B: 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 / Adhesive (Notes 16 & 17)	MDP (psf)
		Type	Fastener	Attach	Type	Attach		
SC-23	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 1.33 ft ²	Min. 0.5-inch SecurShield HD or H-Shield HD	Flexible FAST, FAST D-T (RIBBON, 4-inch o.c.)	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-82.5
SC-24	Min. 22 ga., type B, Grade 80 steel	Min. 2-inch InsulBase, H-Shield, SecurShield, H-Shield CG	InsulFast with Sure-Seal Insulation Plate (aka, Carlisle's Insulation Fastening Plate)	1 per 1.33 ft ²	Min. 0.5-inch SecurShield HD or H-Shield HD	Flexible FAST (RIBBON, 4-inch o.c.)	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-90.0
SC-25	Min. 2,500 psi structural concrete	Min. 2-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 1.33 ft ²	Min. 0.5-inch SecurShield HD or H-Shield HD	Flexible FAST (RIBBON, 4-inch o.c.)	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-90.0
SC-26	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 ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3 followed by Min. 0.25-inch DensDeck Prime	OB500	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP or Sure-Weld BA	-37.5*
SC-27	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 4.0 ft ²	Min 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-37.5*
SC-28	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	Note 2	1 per 2.0 ft ²	Additional layers of base insulation	OB500	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP or Sure-Weld BA	-45.0*
SC-29	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	Note 2	1 per 2.0 ft ²	Min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	OB500	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*
SC-30	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	Note 2	1 per 2.0 ft ²	Min. 0.25-inch DensDeck, DensDeck Prime	OB500	Sure-Weld / Aqua Base 120 or Sure-Weld BA	-45.0*
SC-31	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	Note 2	1 per 2.0 ft ²	Min. 0.25-inch DensDeck Prime	OB500	Sure-Weld / CAV-GRIP III LVOC-AP	-45.0*
SC-32	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 ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	OB500	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP or Sure-Weld BA	-45.0*

TABLE 2B: 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 / Adhesive (Notes 16 & 17)	MDP (psf)
		Type	Fastener	Attach	Type	Attach		
SC-33	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	Note 2	1 per 4.0 ft ²	Additional layers of base insulation	OB500	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP or Sure-Weld BA	-45.0*
SC-34	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	Note 2	1 per 4.0 ft ²	Min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	OB500	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*
SC-35	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	Note 2	1 per 4.0 ft ²	Min. 0.25-inch DensDeck, DensDeck Prime	OB500	Sure-Weld / Aqua Base 120 or Sure-Weld BA	-45.0*
SC-36	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	Note 2	1 per 4.0 ft ²	Min. 0.25-inch DensDeck Prime	OB500	Sure-Weld / CAV-GRIP III LVOC-AP	-45.0*
SC-37	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 3.2 ft ²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*
SC-38	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 2.67 ft ²	Min 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*
SC-39	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 1.6 ft ²	Min 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-60.0
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (PARTIAL BOND):								
SC-40	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch Dens Deck followed by min. 2.0-inch Insulfoam VIII	Note 2	1 per 2.7 ft ²	Min. 1.5-inch Insulam (OSB)	Flexible FAST, FAST D-T (RIBBON, 6-inch o.c.)	Sure-Weld FleeceBACK / FAST 100 LV, Flexible FAST, FAST D-T (RIBBON, 6-inch o.c.)	-37.5*
SC-41	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers Min. 1.5-inch InsulBase, HP-N or HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3, or AC Foam II	Note 2	1 per 2.0 ft ²	Min. 0.25-inch DensDeck	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON)	Sure-Weld FleeceBACK / FAST 100 LV, Flexible FAST (RIBBON, 12-inch o.c.)	-37.5*
SC-42	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	FAST 100 LV, Flexible FAST, FAST 5-GJA (RIBBON)	Sure-Weld FleeceBACK / FAST 100 LV, Flexible FAST, FAST D-T (RIBBON, 12-inch o.c.)	-37.5*

TABLE 2B: 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 / Adhesive (Notes 16 & 17)	MDP (psf)
		Type	Fastener	Attach	Type	Attach		
SC-43	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	One or more layers Min. 1.5-inch InsulBase, HP-N or HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3, or AC Foam II	Note 2	1 per 2.0 ft ²	Additional layers of base insulation	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA, FAST D-T (RIBBON)	Sure-Weld FleeceBACK / FAST 100 LV, Flexible FAST, FAST D-T (RIBBON, 12-inch o.c.)	-45.0*
SC-44	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG	Note 2	1 per 3.2 ft ²	Min. 1.5-inch additional layers of base insulation or min. 2-inch SecurShield HD Composite or H-Shield HD Composite	FAST 100 LV, FAST D-C, FAST D-T (RIBBON or FULL)	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-T (RIBBON, 12-inch o.c.)	-45.0*
SC-45	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase, H-Shield, SecurShield or H-Shield CG	Note 2	1 per 4.0 ft ²	Min. 1-inch additional layers of base insulation or min. 2-inch SecurShield HD Composite or H-Shield HD Composite	FAST 100 LV, FAST D-C, FAST D-T (RIBBON or FULL)	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-T (RIBBON, 12-inch o.c.)	-45.0*
SC-46	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG	Note 2	1 per 3.2 ft ²	Min. 0.25-inch DensDeck Prime	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA, FAST D-T (RIBBON or FULL)	Sure-Weld FleeceBACK / FAST 100 LV, Flexible FAST, FAST D-T (RIBBON, 12-inch o.c.)	-45.0*
SC-47	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase, H-Shield, SecurShield or H-Shield CG	Note 2	1 per 4.0 ft ²	Min. 0.25-inch DensDeck Prime	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA, FAST D-T (RIBBON or FULL)	Sure-Weld FleeceBACK / FAST 100 LV, Flexible FAST, FAST D-T (RIBBON, 12-inch o.c.)	-45.0*
SC-48	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 3.0-inch Insulfoam VIII	Note 2	1 per 2.0 ft ²	Min. 1.5-inch Insulam (OSB)	FAST 100 LV, FAST D-T (RIBBON, 6-inch o.c.)	Sure-Weld FleeceBACK / FAST 100 LV, Flexible FAST, FAST D-T (RIBBON, 6-inch o.c.)	-75.0
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (FULL BOND):								
SC-49	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 2.0-inch Insulfoam VIII	Note 2	1 per 2.7 ft ²	Min. 1.5-inch Insulam (OSB)	Flexible FAST, FAST D-T (RIBBON, 6-inch o.c.)	Sure-Weld FleeceBACK / AquaBase 120 or FAST 100 LV, Flexible FAST, FAST D-T (FULL)	-37.5*
SC-50	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 2.0-inch Insulfoam VIII	Note 2	1 per 2.0 ft ²	Min. 2.0-inch Insulfoam HD Composite	Flexible FAST, FAST D-T (RIBBON, 6-inch o.c.)	Sure-Weld FleeceBACK / FAST 100 LV, Flexible FAST, FAST D-T (FULL)	-45.0*
SC-51	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG	Note 2	1 per 3.2 ft ²	Min 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA, FAST D-T (RIBBON 6-inch o.c.)	Sure-Weld FleeceBACK / FAST 100 LV, Flexible FAST, FAST D-T (FULL).	-45.0*

TABLE 2B: 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 / Adhesive (Notes 16 & 17)	MDP (psf)
		Type	Fastener	Attach	Type	Attach		
SC-52	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase or H-Shield, SecurShield, H-Shield CG	Note 2	1 per 3.2 ft ²	Min. 1.0-inch base insulation	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA, FAST D-T (RIBBON)	Sure-Weld FleeceBACK / FAST 100 LV, Flexible FAST, FAST D-T (FULL)	-45.0*
SC-53	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase or H-Shield, SecurShield, H-Shield CG	Note 2	1 per 3.2 ft ²	Min. 0.25-inch DensDeck Prime	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA, FAST D-T (RIBBON)	Sure-Weld FleeceBACK / FAST 100 LV, Flexible FAST, FAST D-T (FULL)	-45.0*
SC-54	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch InsulBase or H-Shield, SecurShield, H-Shield CG	Note 2	1 per 4.0 ft ²	Min. 1.0-inch base insulation	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA, FAST D-T (RIBBON)	Sure-Weld FleeceBACK / FAST 100 LV, Flexible FAST, FAST D-T (FULL)	-45.0*
SC-55	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2.0-inch InsulBase or H-Shield, SecurShield, H-Shield CG	Note 2	1 per 4.0 ft ²	Min. 0.25-inch DensDeck Prime	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA, FAST D-T (RIBBON)	Sure-Weld FleeceBACK / FAST 100 LV, Flexible FAST, FAST D-T (FULL)	-45.0*
SC-56	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck followed by min. 3.0-inch Insulfoam VIII	Note 2	1 per 2.0 ft ²	Min. 1.5-inch Insulam (OSB)	FAST 100 LV, FAST D-T (RIBBON, 6-inch o.c.)	Sure-Weld FleeceBACK / AquaBase 120	-75.0
SC-57	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase or H-Shield, SecurShield, H-Shield CG	Note 2	1 per 1.6 ft ²	Min. 1.0-inch base insulation or minimum 2-inch SecurShield HD Composite	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA, FAST D-T (RIBBON, 6-inch o.c.)	Sure-Weld FleeceBACK / FAST 100 LV, Flexible FAST, FAST D-T (FULL)	-82.5
SURE-WELD FLEECEBACK® RL™ APPLICATIONS:								
SC-58	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Carlisle InsulFast with Sure-Seal Insulation Plate or SecurFast Insulation Fastening Plate	1 per 2.0 ft ²	Min. 0.5-inch SecurShield HD RL	FAST 100 LV, Flexible FAST, FAST D-T (FULL or RIBBON, 4-inch o.c.)	Sure-Weld FleeceBACK® RL™	-45.0*
SC-59	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 2.0 ft ²	Min. 0.5-inch SecurShield HD RL	FAST 100 LV, Flexible FAST, FAST D-T (FULL or RIBBON, 4-inch o.c.)	Sure-Weld FleeceBACK® RL™	-45.0*
SC-60	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Carlisle InsulFast with Sure-Seal Insulation Plate or SecurFast Insulation Fastening Plate	1 per 1.78 ft ²	Min. 0.5-inch SecurShield HD RL	FAST 100 LV, Flexible FAST, FAST D-T (FULL or RIBBON, 4-inch o.c.)	Sure-Weld FleeceBACK® RL™	-52.5
SC-61	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 1.78 ft ²	Min. 0.5-inch SecurShield HD RL	FAST 100 LV, Flexible FAST, FAST D-T (FULL or RIBBON, 4-inch o.c.)	Sure-Weld FleeceBACK® RL™	-52.5

TABLE 2B: 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 / Adhesive (Notes 16 & 17)	MDP (psf)
		Type	Fastener	Attach	Type	Attach		
SC-62	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Carlisle InsulFast with Sure-Seal Insulation Plate or SecurFast Insulation Fastening Plate	1 per 1.33 ft ²	Min. 0.5-inch SecurShield HD RL	FAST 100 LV, Flexible FAST, FAST D-T (FULL or RIBBON, 4-inch o.c.)	Sure-Weld FleeceBACK® RL™	-82.5
SC-63	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 1.33 ft ²	Min. 0.5-inch SecurShield HD RL	FAST 100 LV, Flexible FAST, FAST D-T (FULL or RIBBON, 4-inch o.c.)	Sure-Weld FleeceBACK® RL™	-82.5
SC-64	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch InsulBase H-Shield, SecurShield, H-Shield CG	Carlisle InsulFast with Sure-Seal Insulation Plate or SecurFast Insulation Fastening Plate	1 per 1.0 ft ²	Min. 0.5-inch SecurShield HD RL	FAST 100 LV, Flexible FAST, FAST D-T (FULL or RIBBON, 4-inch o.c.)	Sure-Weld FleeceBACK® RL™	-112.5
SC-65	Min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 1.0 ft ²	Min. 0.5-inch SecurShield HD RL	FAST 100 LV, Flexible FAST, FAST D-T (FULL or RIBBON, 4-inch o.c.)	Sure-Weld FleeceBACK® RL™	-112.5

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

System No.	Deck (Note 1)	Base Insulation Layer			Top Insulation Layer		Roof Cover / Adhesive (Notes 16 & 17)		MDP (psf)
		Type	Fastener	Attach	Type	Attach	Base Ply	Top Ply	
SURE-WELD AFX MEMBRANE APPLICATIONS:									
SC-66	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase, H-Shield	Note 2	1 per 4 ft²	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Hot asphalt	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-45.0*
SC-67	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase, H-Shield	Note 2	1 per 1.6 ft²	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Hot asphalt	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-60.0
SC-68	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase, H-Shield	Note 2	1 per 4 ft²	Min. 0.25-inch DensDeck Prime	FAST 100 LV, Flexible FAST, FAST D-C, FAST 5-GJA, FAST D-T (RIBBON)	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-45.0*
SC-69	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, H-Shield	Note 2	1 per 3.2 ft²	Min. 0.25-inch DensDeck Prime	FAST 100 LV, Flexible FAST, FAST D-C, FAST 5-GJA, FAST D-T (RIBBON)	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-45.0*
SC-70	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase, H-Shield	Note 2	1 per 4 ft²	Min. 0.25-inch DensDeck Prime	OB500	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-45.0*
SC-71	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch InsulBase, H-Shield	Note 2	1 per 2 ft²	Min. 0.25-inch DensDeck Prime	OB500	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-45.0*
SC-72	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch InsulBase, H-Shield	Note 2	1 per 1.6 ft²	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	OB500, 6-inch o.c.	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-60.0

TABLE 2D: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE B-2: MECHANICALLY ATTACHED THERMAL BARRIER, BONDED VAPOR BARRIER, BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Thermal Barrier			Primer	Vapor Barrier	Base Insulation		Top Insulation		Roof Cover / Adhesive (Notes 16 & 17)	MDP (psf)
		Type	Fasten	Attach			Type	Attach	Type	Attach		
SURE-WELD OR SURE-WELD HS MEMBRANE APPLICATIONS:												
SC-73	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck Prime or min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2 ft²	CAV-GRIP Primer	VapAir Seal 725TR, self-adhering	Min. 1.5-inch InsulBase, H-Shield	FAST 100 LV, FAST 5-GJA, FAST D-C, Flexible FAST (RIBBON)	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV, FAST 5-GJA, FAST D-C, Flexible FAST (RIBBON)	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*
SC-74	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck Prime or min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2 ft²	CAV-GRIP Primer	VapAir Seal 725TR, self-adhering	Min. 1.5-inch InsulBase, H-Shield	FAST 100 LV, FAST 5-GJA, FAST D-C, Flexible FAST (RIBBON)	(Optional) Additional layers base insulation	FAST 100 LV, FAST 5-GJA, FAST D-C, Flexible FAST (RIBBON)	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-52.5
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (PARTIAL BOND):												
SC-75	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck Prime or min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2 ft²	CAV-GRIP Primer	VapAir Seal 725TR, self-adhering	(Optional) Min. 1.5-inch InsulBase, H-Shield	FAST 100 LV, FAST 5-GJA, FAST D-C, Flexible FAST (RIBBON)	Min. 2-inch SecurShield HD Composite	FAST 100 LV, FAST 5-GJA, FAST D-C, Flexible FAST (RIBBON)	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-C, Flexible FAST, FAST D-T (RIBBON, 12-inch o.c.)	-45.0*
SC-76	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck Prime or min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2 ft²	CAV-GRIP Primer	VapAir Seal 725TR, self-adhering	Min. 1.5-inch InsulBase, H-Shield	FAST 100 LV, FAST 5-GJA, FAST D-C, Flexible FAST (RIBBON)	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV, FAST 5-GJA, FAST D-C, Flexible FAST (RIBBON)	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-C, Flexible FAST, FAST D-T (RIBBON, 6-inch o.c.)	-45.0*
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (FULL BOND):												
SC-77	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck Prime or min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2 ft²	CAV-GRIP Primer	VapAir Seal 725TR, self-adhering	Min. 1.5-inch InsulBase, H-Shield	FAST 100 LV, FAST 5-GJA, FAST D-C, Flexible FAST (RIBBON)	Min. 0.5-inch SecurShield HD or SecurShield HD Plus	FAST 100 LV, FAST 5-GJA, FAST D-C, Flexible FAST (RIBBON, 6-inch o.c.)	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-C, Flexible FAST, FAST D-T (FULL)	-45.0*
SC-78	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 0.5-inch DensDeck Prime or min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2 ft²	CAV-GRIP Primer	VapAir Seal 725TR, self-adhering	Min. 1.5-inch InsulBase, H-Shield	FAST 100 LV, FAST 5-GJA, FAST D-C, Flexible FAST (RIBBON)	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV, FAST 5-GJA, FAST D-C, Flexible FAST (RIBBON)	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-C, Flexible FAST, FAST D-T (FULL)	-52.5

TABLE 2E: 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 (Optional for Recover)	Top Insulation Layer			Roof Cover / Adhesive (Notes 16 & 17)	MDP (psf)
			Type	Fasteners	Attach		
SURE-WELD OR SURE-WELD HS MEMBRANE APPLICATIONS:							
SC-79	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Min. 0.25-inch DensDeck Prime	Carlisle InsulFast with Sure-Seal Insulation Plate (aka, Carlisle's Insulation Fastening Plate)	1 per 3.2 ft²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-30.0*
SC-80	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Min. 0.5-inch DensDeck Prime	Carlisle InsulFast with Sure-Seal Insulation Plate (aka, Carlisle's Insulation Fastening Plate)	1 per 5.33 ft²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-30.0*
SC-81	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min 7/16-inch APA or TECO rated OSB	Trufast SIP LD Fasteners	1 per 3.2 ft²	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP or Sure-Weld BA	-37.5*
SC-82	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 ACFoam II or ENRGY 3	Note 2	1 per 1.6 ft²	Sure-Weld / Aqua Base 120 or Sure-Weld BA	-37.5*
SC-83	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 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.67 ft²	Sure-Weld / CAV-GRIP III LVOC-AP or LVOC BA	-37.5*
SC-84	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 or H-Shield HD	Note 2	1 per 2.67 ft²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-37.5*
SC-85	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 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.67 ft²	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-37.5*
SC-86	Min. 22 ga., type B, Grade 33 steel	Min. 2-inch thick, one or more layers, any combination, loose laid	Min 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Carlisle InsulFast or OMG #12 Roofgrip with SecurFast Insulation Fastening Plate or OMG 3 in. Galvalume Steel Plate	1 per 5.33 ft²	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-37.5*
SC-87	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Min. 0.625-inch DensDeck Prime	Carlisle InsulFast with Sure-Seal Insulation Plate (aka, Carlisle's Insulation Fastening Plate)	1 per 5.33 ft²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-37.5*
SC-88	Min. 22 ga., type B, Grade 33 steel	Min. 2-inch thick, one or more layers, any combination, loose laid	Min 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Carlisle InsulFast or OMG #12 Roofgrip with SecurFast Insulation Fastening Plate or OMG 3 in. Galvalume Steel Plate	1 per 3.2 ft²	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*
SC-89	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 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 2.0 ft²	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*
SC-90	Min. 22 ga., type B, Grade 33 steel	Min. 2-inch thick, one or more layers, any combination, loose laid	Min 0.375-inch SECUROCK Gypsum-Fiber Roof Board	Carlisle InsulFast or OMG #12 Roofgrip with SecurFast Insulation Fastening Plate or OMG 3 in. Galvalume Steel Plate	1 per 4.0 ft²	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*

TABLE 2E: 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 (Optional for Recover)	Top Insulation Layer			Roof Cover / Adhesive (Notes 16 & 17)	MDP (psf)
			Type	Fasteners	Attach		
SC-91	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min 0.5-inch DensDeck Prime	Carlisle InsulFast with Sure-Seal Insulation Plate (aka, Carlisle's Insulation Fastening Plate)	1 per 4.0 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*
SC-92	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 0.50-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 3.2 ft ²	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*
SC-93	Min. 22 ga., type B, Grade 33 steel	Min. 2-inch thick, one or more layers, any combination, loose laid	Min 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Carlisle InsulFast or OMG #12 Roofgrip with SecurFast Insulation Fastening Plate or OMG 3 in. Galvalume Steel Plate	1 per 5.33 ft ²	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*
SC-94	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 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 4.0 ft ²	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*
SC-95	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min 7/16-inch APA or TECO rated OSB	Trufast SIP LD Fasteners	1 per 2.67 ft ²	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP or Sure-Weld BA	-45.0*
SC-96	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 3.6 ft ²	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP or Sure-Weld BA	-45.0*
SC-97	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, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 1.6 ft ²	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, or Sure-Weld BA	-45.0*
SC-98	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	Note 2	1 per 2.0 ft ²	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, or Sure-Weld BA	-45.0*
SC-99	Min. 22 ga., type B, Grade 33 steel	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Carlisle InsulFast or OMG #12 Roofgrip with OMG 3 in. Galvalume Steel Plate or OMG Flat Bottom Metal Plate	1 per 3.2 ft ²	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*
SC-100	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 SecurShield HD Composite, H-Shield HD Composite	Note 2	1 per 2.0 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*
SC-101	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 ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	Note 2	1 per 4.0 ft ²	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, or Sure-Weld BA	-45.0*
SC-102	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 SecurShield HD Composite, H-Shield HD Composite	Note 2	1 per 4.0 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*

TABLE 2E: 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 (Optional for Recover)	Top Insulation Layer			Roof Cover / Adhesive (Notes 16 & 17)	MDP (psf)
			Type	Fasteners	Attach		
SC-103	Min. 22 ga., type B, Grade 40 steel, 6 ft span, 5/8" diameter puddle welds 6" o.c., side laps secured 24" o.c. w/ 1/4"-14x1" long self-tapping hex-head screw	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch InsulBase, H-Shield	Carlisle InsulFast or OMG #12 Roofgrip with SecurFast Insulation Fastening Plate or OMG 3 in. Galvalume Steel Plate	1 per 2.0 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP or Sure-Weld BA	-45.0
SC-104	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 or H-Shield HD	Note 2	1 per 2.0 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*
SC-105	Min. 22 ga., type B, Grade 33 steel or structural concrete	Min. 1.5-inch InsulBase, HP-N or HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3 or ACFoam II	Min. 0.5-inch SecurShield HD Plus	Note 2	1 per 4 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-45.0*
SC-106	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Min. 0.25-inch DensDeck Prime	Carlisle InsulFast with Sure-Seal Insulation Plate (aka, Carlisle's Insulation Fastening Plate)	1 per 1.8 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-52.5
SC-107	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-Weld / Aqua Base 120	-52.5
SC-108	Min. 22 ga., type B, Grade 33 steel or structural concrete	Min. 1.5-inch InsulBase, HP-N or HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3 or ACFoam II	Min. 0.5-inch SecurShield HD Plus	Note 2	1 per 1.78 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-60.0
SC-109	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 1.6 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP or Sure-Weld BA	-60.0
SC-110	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Carlisle InsulFast or OMG #12 Roofgrip with SecurFast Insulation Fastening Plate or OMG 3 in. Galvalume Steel Plate	1 per 1 ft ²	Sure-Weld / Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-60.0
SC-111	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Min. 0.5-inch DensDeck Prime	Carlisle InsulFast with Sure-Seal Insulation Plate (aka, Carlisle's Insulation Fastening Plate)	1 per 1.8 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-67.5
SC-112	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-Weld / CAV-GRIP III LVOC-AP or Sure-Weld BA	-75.0
SC-113	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 ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	Note 2	1 per 1.6 ft ²	Sure-Weld / Sure-Weld BA	-75.0
SC-114	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, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 1.6 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP	-75.0

TABLE 2E: 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 (Optional for Recover)	Top Insulation Layer			Roof Cover / Adhesive (Notes 16 & 17)	MDP (psf)
			Type	Fasteners	Attach		
SC-115	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 SecurShield HD Composite, H-Shield HD Composite	Note 2	1 per 1.6 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-75.0
SC-116	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Min. 0.5-inch DensDeck Prime	Carlisle InsulFast with Sure-Seal Insulation Plate (aka, Carlisle's Insulation Fastening Plate)	1 per 1.6 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-75.0
SC-117	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 1.6 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP or LVOC BA	-75.0
SC-118	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 1.6 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP or Sure-Weld BA	-82.5
SC-119	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Min 0.5-inch DensDeck Prime	Carlisle InsulFast with Sure-Seal Insulation Plate (aka, Carlisle's Insulation Fastening Plate)	1 per 1 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-82.5
SC-120	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 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP	-82.5
SC-121	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 ft ²	Sure-Weld / Sure-Weld BA	-97.5
SC-122	Min. 20 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.33 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP or Sure-Weld BA	-112.5
SC-123	Min. 18 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 2-inch thick, one or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1.33 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP or Sure-Weld BA	-112.5
SC-124	Min. 22 ga., type B, Grade 33 steel or structural concrete	Min. 1.5-inch InsulBase, HP-N or HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3 or ACfoam II	Min. 0.5-inch SecurShield HD Plus	Note 2	1 per 1.33 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP or Sure-Weld BA or LVOC BA	-112.5
SC-125	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. 2.0-inch SecurShield HD Composite, H-Shield HD Composite	Note 2	1 per 1 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-112.5
SC-126	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, H-Shield CG	Note 2	1 per 1 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP or Sure-Weld BA	-120.0

TABLE 2E: 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 (Optional for Recover)	Top Insulation Layer			Roof Cover / Adhesive (Notes 16 & 17)	MDP (psf)
			Type	Fasteners	Attach		
SC-127	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 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP or LVOC BA	-127.5
SC-128	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Min 0.5-inch DensDeck Prime	Carlisle InsulFast with Sure-Seal Insulation Fastening Plate (aka, Carlisle's Insulation Fastening Plate)	1 per 1 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-127.5
SC-129	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. 2.0-inch SecurShield or H-Shield CG	Note 2	1 per 1 ft ²	Sure-Weld / CAV-GRIP III LVOC-AP or LVOC BA	-127.5
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (PARTIAL BOND):							
SC-130	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, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 3.2 ft ²	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-T (RIBBON, 12-inch o.c.)	-45.0*
SC-131	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, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 4 ft ²	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-T (RIBBON, 12-inch o.c.)	-45.0*
SC-132	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 HD Composite, H-Shield HD Composite	Note 2	1 per 4 ft ²	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-T (RIBBON, 12-inch o.c.)	-45.0*
SC-133	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 0.25-inch DensDeck Prime	Note 2	1 per 2.0 ft ²	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-T, Flexible FAST (RIBBON, 12-inch o.c.)	-45.0*
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (FULL BOND):							
SC-134	Min. 22 ga., type B, Grade 33 steel	Min. 2-inch thick, one or more layers, any combination, loose laid	Min 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Carlisle InsulFast or OMG #12 Roofgrip with SecurFast Insulation Fastening Plate or OMG 3 in. Galvalume Steel Plate	1 per 5.33 ft ²	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-T (FULL)	-37.5*
SC-135	Min. 22 ga., type B, Grade 33 steel	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Carlisle InsulFast or OMG #12 Roofgrip with OMG 3 in. Galvalume Steel Plate or OMG Flat Bottom Metal Plate	1 per 3.2 ft ²	Sure-Weld FleeceBACK / FAST 100 LV, Flexible FAST, FAST D-T (FULL)	-45.0*
SC-136	Min. 22 ga., type B, Grade 33 steel	Min. 2-inch thick, one or more layers, any combination, loose laid	Min 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Carlisle InsulFast or OMG #12 Roofgrip with SecurFast Insulation Fastening Plate or OMG 3 in. Galvalume Steel Plate	1 per 3.2 ft ²	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-T (FULL)	-45.0*
SC-137	Min. 22 ga., type B, Grade 33 steel	Min. 2-inch thick, one or more layers, any combination, loose laid	Min 0.375-inch SECUROCK Gypsum-Fiber Roof Board	Carlisle InsulFast or OMG #12 Roofgrip with SecurFast Insulation Fastening Plate or OMG 3 in. Galvalume Steel Plate	1 per 4.0 ft ²	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-T (FULL)	-45.0*

TABLE 2E: 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 (Optional for Recover)	Top Insulation Layer			Roof Cover / Adhesive (Notes 16 & 17)	MDP (psf)
			Type	Fasteners	Attach		
SC-138	Min. 22 ga., type B, Grade 33 steel	Min. 2-inch thick, one or more layers, any combination, loose laid	Min 0.625-inch SECUROCK Gypsum-Fiber Roof Board	Carlisle InsulFast or OMG #12 Roofgrip with SecurFast Insulation Fastening Plate or OMG 3 in. Galvalume Steel Plate	1 per 5.33 ft ²	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-T (FULL)	-45.0*
SC-139	Min. 22 ga., type B, Grade 33 steel or structural concrete	Min. 1.5-inch InsulBase, HP-N or HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3 or ACFoam II	Min. 0.5-inch SecurShield HD Plus	Note 2	1 per 4 ft ²	Sure-Weld FleeceBACK / Flexible FAST, FAST D-T (FULL)	-45.0*
SC-140	Min. 22 ga., type B, Grade 33 steel or structural concrete	Min. 1.5-inch InsulBase, HP-N or HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3 or ACFoam II	Min. 0.5-inch SecurShield HD Plus	Note 2	1 per 1.78 ft ²	Sure-Weld FleeceBACK / Flexible FAST, FAST D-T (FULL)	-60.0
SC-141	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Carlisle InsulFast or OMG #12 Roofgrip with SecurFast Insulation Fastening Plate or OMG 3 in. Galvalume Steel Plate	1 per 1 ft ²	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-T (FULL)	-60.0
SC-142	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-Weld FleeceBACK / FAST 100 LV, Flexible FAST, FAST D-T (FULL)	-75.0
SC-143	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 15/32-inch OSB	Note 2	1 per 1.9 ft ² (Carlisle A-27F)	Sure-Weld FleeceBACK / Aqua Base 120, HydroBond W-B	-82.5
SC-144	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 ft ²	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-T (FULL)	-82.5
SC-145	Min. 22 ga., type B, Grade 33 steel or structural concrete	Min. 1.5-inch InsulBase, HP-N or HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3 or ACFoam II	Min. 0.5-inch SecurShield HD Plus	Note 2	1 per 1.33 ft ²	Sure-Weld FleeceBACK / Flexible FAST, FAST D-T (FULL)	-112.5
SC-146	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, H-Shield CG	Note 2	1 per 1 ft ²	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-T (FULL)	-135.0
SC-147	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 ft ²	Sure-Weld FleeceBACK / FAST 100 LV, Flexible FAST, FAST D-T (FULL)	-135.0
SC-148	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	Min 0.5-inch SECUROCK Gypsum-Fiber Roof Board	Note 2	1 per 1 ft ²	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-T (FULL)	-135.0
SC-149	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 SecurShield HD Composite, H-Shield HD Composite	Note 2	1 per 1 ft ²	Sure-Weld FleeceBACK / FAST 100 LV (FULL)	-157.5

TABLE 2E: 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 (Optional for Recover)	Top Insulation Layer			Roof Cover / Adhesive (Notes 16 & 17)	MDP (psf)
			Type	Fasteners	Attach		
SURE-WELD SAT-TPO MEMBRANE APPLICATIONS:							
SC-150	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional for Recover) Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 2-inch Insulfoam SP	Note 2	1 per 2.7 ft²	Sure-Weld SAT-TPO, self-adhered	-30.0*
SC-151	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional for Recover) Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 2-inch Insulfoam SP	Note 2	1 per 2.0 ft²	Sure-Weld SAT-TPO, self-adhered	-45.0*
SC-152	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional for Recover) Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min 7/16-inch APA or TECO rated OSB	Note 2	1 per 2.0 ft²	Sure-Weld SAT-TPO, self-adhered	-45.0*
SC-153	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 2.0 ft²	Sure-Weld SAT-TPO, self-adhered	-45.0*
SC-154	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	(Optional) Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 2.0-inch InsulBase, H-Shield, SecurShield, H-Shield CG	Note 2	1 per 1.6 ft²	Sure-Weld SAT-TPO, self-adhered	-60.0
SURE-WELD FLEECEBACK® RL™ APPLICATIONS:							
SC-155	Min. 22 ga., type B, Grade 33 steel	(Optional) One or more layers, any combination, loose laid	Min. 2.0-inch InsulBase RL	Carlisle InsulFast with Sure-Seal Insulation Plate or SecurFast Insulation Fastening Plate	1 per 4.0 ft²	Sure-Weld FleeceBACK® RL™	-45.0*
SC-156	Min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2.0-inch InsulBase RL	Note 2	1 per 4.0 ft²	Sure-Weld FleeceBACK® RL™	-45.0*
SC-157	Min. 22 ga., type B, Grade 33 steel	Min., 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG, loose-laid	Min. 0.5-inch SecurShield HD RL	Carlisle InsulFast with Sure-Seal Insulation Plate or SecurFast Insulation Fastening Plate	1 per 2.0 ft²	Sure-Weld FleeceBACK® RL™	-45.0*
SC-158	Min. 2,500 psi structural concrete	Min., 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG, loose-laid	Min. 0.5-inch SecurShield HD RL	Note 2	1 per 2.0 ft²	Sure-Weld FleeceBACK® RL™	-45.0*
SC-159	Min. 22 ga., type B, Grade 33 steel	(Optional) One or more layers, any combination, loose laid	Min. 2.0-inch InsulBase RL	Carlisle InsulFast with Sure-Seal Insulation Plate or SecurFast Insulation Fastening Plate	1 per 1.6 ft²	Sure-Weld FleeceBACK® RL™	-75.0
SC-160	Min. 2,500 psi structural concrete	(Optional) One or more layers, any combination, loose laid	Min. 2.0-inch InsulBase RL	Note 2	1 per 1.6 ft²	Sure-Weld FleeceBACK® RL™	-75.0

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

System No.	Deck (Note 1)	Base Insulation Layer	Top Insulation Layer			Roof Cover / Adhesive (Notes 16 & 17)		MDP (psf)
			Type	Fasteners	Attach	Base Ply	Top Ply	
SURE-WELD AFX MEMBRANE APPLICATIONS:								
SC-161	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.5-inch DensDeck Prime	InsulFast with Sure-Seal Insulation Plate (aka, Carlisle’s Insulation Fastening Plate)	1 per 1.78 ft²	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-67.5
SC-162	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 1.78 ft²	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-67.5
SC-163	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.5-inch DensDeck Prime	InsulFast with Sure-Seal Insulation Plate (aka, Carlisle’s Insulation Fastening Plate)	1 per 1.6 ft²	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-75.0
SC-164	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 1.6 ft²	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-75.0
SC-165	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 1.6 ft²	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-75.0
SC-166	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination, loose laid	Min. 0.5-inch SECUROCK Gypsum-Fiber Roof Board	InsulFast with Sure-Seal Insulation Plate (aka, Carlisle’s Insulation Fastening Plate)	1 per 1 ft²	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-120.0
SC-167	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 ft²	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-120.0

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

System No.	Deck (Note 1)	Insulation Layer (Note 14)	Attachment		Roof Cover	MDP (psf)
			Fasteners	Density		
RHINO BOND SYSTEMS:						
SC-168	Min. 22 ga., type B, Grade 33 steel	Min. 1-inch thick, one or more layers, any combination. Note A.	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	1 per 5.33 ft² (6 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29; Note B	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer's instructions.	-45.0
SC-169	Min. 22 ga., type B, Grade 33 steel, 7 ft span, HILTI X-HSN 24, 6" o.c. Side laps HILTI S-SLC 01 M HWH, 24" o.c.	Min. 1-inch thick, one or more layers, any combination. Note C.	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	1 per 4 ft² (2 x 2 ft grid pattern)	Sure-Weld (minimum 60-mil) or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer's instructions.	-52.5
SC-170	Min. 22 ga., type B, Grade 33 steel, 7 ft span, 5/8" puddle welds, 6" o.c. Side laps ITW HWH #12 Tek 1, 24" o.c.	Min. 1-inch thick, one or more layers, any combination. Note C.	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	1 per 4 ft² (2 x 2 ft grid pattern)	Sure-Weld (minimum 60-mil) or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer's instructions.	-52.5
SC-171	Min. 22 ga., type B, Grade 33 steel	Min. 1-inch thick, one or more layers, any combination. Note A.	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	1 per 4 ft² (8 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29; Note B	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer's instructions.	-52.5
SC-172	Min. 22 ga., type B, Grade 40 steel; 6 ft spans; 5/8" puddle welds 6" o.c.	Min. 1.5-inch thick, one or more layers, any combination	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	1 per 4 ft² (2 x 2 ft grid pattern)	Sure-Weld (minimum 60-mil) or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer's instructions.	-52.5
SC-173	Min. 22 ga., type B, Grade 80 steel	Min. 1-inch thick, one or more layers, any combination. Note A.	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	1 per 4 ft² (8 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29; Note B	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer's instructions.	-60.0
SC-174	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch thick, one or more layers, any combination. Note C.	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	1 per 2 ft² (16 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer's instructions.	-97.5
SC-175	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached (Note 5)	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	12-inch o.c. in rows 120-inch o.c.	Sure-Weld (minimum 60-mil) or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer's instructions.	-30.0

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

System No.	Deck (Note 1)	Insulation Layer (Note 14)	Attachment		Roof Cover	MDP (psf)
			Fasteners	Density		
SC-176	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached (Note 5)	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	6-inch o.c. in rows 120-inch o.c.	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-37.5
SC-177	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached (Note 5)	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	12-inch o.c. in rows 60-inch o.c.	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-37.5
SC-178	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached (Note 5)	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	12-inch o.c. in rows 60-inch o.c.	Sure-Weld (minimum 60-mil) or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-45.0
SC-179	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached (Note 5)	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	6-inch o.c. in rows 120-inch o.c.	Sure-Weld (minimum 60-mil) or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-52.5
SC-180	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch thick, one or more layers, any combination, preliminarily attached (Note 5)	Carlisle HP-X Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	6-inch o.c. in rows 60-inch o.c.	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-67.5
Notes:	A. For these assemblies, the 8 ft insulation board length is placed perpendicular to the steel deck ribs. B. The plate/fastener combination offset 12 inch from adjacent rows. C. For these assemblies, the 8 ft insulation board length is placed perpendicular to the steel deck ribs and each row of insulation is staggered by 1 foot.					
ISOWELD INDUCTION WELDING SYSTEM:						
SC-181	Min. 22 ga., type B, Grade 40 steel	One or more layers, any combination, min. 1.5-inch, preliminarily attached (Note 5)	Dekfast #15 HS with SFS <i>isoweld</i> ® TPO Plates (FI-P-6.8-TPO)	12-inch o.c. in rows 60-inch o.c.	Sure-Weld or Sure-Weld EXTRA bonded to SFS <i>isoweld</i> ® TPO Plates with SFS <i>isoweld</i> ® 3000 stand-up tool.	-37.5
SC-182	Min. 22 ga., type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch, preliminarily attached (Note 5)	Dekfast #12 DP with SFS <i>isoweld</i> ® TPO Plates (FI-P-6.8-TPO)	12-inch o.c. in rows 60-inch o.c.	Sure-Weld or Sure-Weld EXTRA bonded to SFS <i>isoweld</i> ® TPO Plates with SFS <i>isoweld</i> ® 3000 stand-up tool.	-37.5
SC-183	Min. 22 ga., type B, Grade 40 steel	One or more layers, any combination, min. 1.5-inch	Dekfast #15 HS with SFS <i>isoweld</i> ® TPO Plates (FI-P-6.8-TPO)	1 per 6 ft² 2x3-ft grid, staggered	Sure-Weld or Sure-Weld EXTRA bonded to SFS <i>isoweld</i> ® TPO Plates with SFS <i>isoweld</i> ® 3000 stand-up tool.	-52.5
SC-184	Min. 22 ga., type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Dekfast #12 with SFS <i>isoweld</i> ® TPO Plates (FI-P-6.8-TPO)	1 per 6 ft² 2x3-ft grid, staggered	Sure-Weld or Sure-Weld EXTRA bonded to SFS <i>isoweld</i> ® TPO Plates with SFS <i>isoweld</i> ® 3000 stand-up tool.	-52.5
SC-185	Min. 22 ga., type B, Grade 40 steel	One or more layers, any combination, min. 1.5-inch	Dekfast #15 HS with SFS <i>isoweld</i> ® TPO Plates (FI-P-6.8-TPO)	1 per 4 ft² 2x2-ft grid, staggered	Sure-Weld or Sure-Weld EXTRA bonded to SFS <i>isoweld</i> ® TPO Plates with SFS <i>isoweld</i> ® 3000 stand-up tool.	-60.0
SC-186	Min. 22 ga., type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Dekfast #12 with SFS <i>isoweld</i> ® TPO Plates (FI-P-6.8-TPO)	1 per 4 ft² 2x2-ft grid, staggered	Sure-Weld or Sure-Weld EXTRA bonded to SFS <i>isoweld</i> ® TPO Plates with SFS <i>isoweld</i> ® 3000 stand-up tool.	-60.0
SC-187	Min. 22 ga., type B, Grade 40 steel	One or more layers, any combination, min. 1.5-inch	Dekfast #15 HS with SFS <i>isoweld</i> ® TPO Plates (FI-P-6.8-TPO)	1 per 3 ft² 1.5 x 2-ft grid, staggered	Sure-Weld or Sure-Weld EXTRA bonded to SFS <i>isoweld</i> ® TPO Plates with SFS <i>isoweld</i> ® 3000 stand-up tool.	-82.5

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

System No.	Deck (Note 1)	Insulation Layer (Note 14)	Attachment		Roof Cover	MDP (psf)
			Fasteners	Density		
SC-188	Min. 22 ga., type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Dekfast #12 DP with SFS <i>isoweld</i> ® TPO Plates (FI-P-6.8-TPO)	1 per 3 ft ² 1.5 x 2-ft grid, staggered	Sure-Weld or Sure-Weld EXTRA bonded to SFS <i>isoweld</i> ® TPO Plates with SFS <i>isoweld</i> ® 3000 stand-up tool.	-82.5
SC-189	Min. 22 ga., type B, Grade 40 steel	One or more layers, any combination, min. 1.5-inch, preliminarily attached (Note 5)	Dekfast #15 HS with SFS <i>isoweld</i> ® TPO Plates (FI-P-6.8-TPO)	6-inch o.c. in rows 60-inch o.c.	Sure-Weld or Sure-Weld EXTRA bonded to SFS <i>isoweld</i> ® TPO Plates with SFS <i>isoweld</i> ® 3000 stand-up tool.	-90.0
SC-190	Min. 22 ga., type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch, preliminarily attached (Note 5)	Dekfast #12 DP with SFS <i>isoweld</i> ® TPO Plates (FI-P-6.8-TPO)	6-inch o.c. in rows 60-inch o.c.	Sure-Weld or Sure-Weld EXTRA bonded to SFS <i>isoweld</i> ® TPO Plates with SFS <i>isoweld</i> ® 3000 stand-up tool.	-90.0

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

System No.	Deck (Note 1)	Insulation Layer (Note 14)		Roof Cover						MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners	Fastener Spacing	Lap Width	Lap Spacing	Seam Weld	
BARE-BACK MEMBRANE APPLICATIONS:										
SC-191	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA, Sure-Weld HS	Carlisle HP-X Fastener (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plate or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	12-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-30.0
SC-192	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Trufast #15 EHD Fastener with Trufast 2.4" Barbed Metal Seam Plates	12-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-30.0
SC-193	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fastener (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plate or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	12-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-30.0
SC-194	Min. 22 ga., type B, Grade 33 steel, 6 ft span, 5/8" diameter puddle welds 6" o.c., side laps secured 24" o.c. w/ ¼"-14x1" long self-tapping hex-head screw	Min. 1-inch, one or more layers, any combination (optional for recover) followed by 3/8-inch Insulfoam R-Tech EPS or Fan-Fold	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-Xtra Fasteners and Piranha Xtra Plates	12-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-30.0
SC-195	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Trufast #15 EHD Fastener with Trufast 2.4" Barbed Metal Seam Plates	18-inch o.c.	5.5-inch	66.5-inch o.c.	1.5-inch outside	-30.0
SC-196	Min. 22 ga., type B, Grade 40 steel; 6 ft spans; 5/8" puddle welds 6" o.c. or min. 2,500 psi structural concrete	Min. 1-inch, one or more layers, any combination	Prelim. attach	Sure-Weld (min. 60-mil) or Sure-Weld EXTRA	Carlisle HP-X Fastener (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plate	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-37.5
SC-197	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld HS	Carlisle HP-X Fastener (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plate	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-37.5
SC-198	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fastener (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plate or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	12-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-37.5
SC-199	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Trufast #15 EHD Fastener with Trufast 2.4" Barbed Metal Seam Plates	12-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-37.5
SC-200	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld HS	Carlisle HP-Xtra Fasteners and Piranha Xtra Plates (steel only) or Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plates	12-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-37.5

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

System No.	Deck (Note 1)	Insulation Layer (Note 14)		Roof Cover						MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners	Fastener Spacing	Lap Width	Lap Spacing	Seam Weld	
SC-201	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fastener and Piranha Plate	12-inch o.c.	5-inch	91-inch o.c.	1.5-inch outside	-37.5
SC-202	Min. 22 ga., type B, Grade 33 steel, 6 ft span, 5/8" diameter puddle welds 6" o.c., side laps secured 24" o.c. w/ ¼"-14x1" long self-tapping hex-head screw	Min. 1-inch, one or more layers, any combination	Prelim. Attach	Sure-Weld (min. nominal 60-mil) or Sure-Weld EXTRA	Carlisle HP-Xtra Fasteners and Piranha Xtra Plates	12-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-37.5
SC-203	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Trufast #15 EHD Fastener with Trufast 2.4" Barbed Metal Seam Plates	12-inch o.c.	5.5-inch	66.5-inch o.c.	1.5-inch outside	-37.5
SC-204	Min. 22 ga., type B, Grade 33 steel, 6 ft span, 5/8" diameter puddle welds 6" o.c., side laps secured 24" o.c. w/ ¼"-14x1" long self-tapping hex-head screw	Min. 1-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fasteners and Piranha Plates or #15 Roofgrip with 2-3/8" Eyehook Seam Plates (AccuSeam)	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-45.0
SC-205	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-Xtra Fasteners and Piranha Xtra Plates (steel only) or Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plates	12-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-45.0
SC-206	Min. 18 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fasteners (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plates or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	12-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-45.0
SC-207	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Trufast #15 EHD Fastener with Trufast 2.4" Barbed Metal Seam Plates	6-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-45.0
SC-208	Min. 22 ga., type B, Grade 33 steel, 6 ft span, 5/8" diameter puddle welds 6" o.c., side laps secured 24" o.c. w/ ¼"-14x1" long self-tapping hex-head screw	Min. 1-inch, one or more layers, any combination	Prelim. attach	Sure-Weld (min. nominal 60-mil) or Sure-Weld EXTRA	Carlisle HP-X Fasteners and Piranha Plates or #15 Roofgrip with 2-3/8" Eyehook Seam Plates (AccuSeam)	6-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-45.0
SC-209	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fastener (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plate or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	12-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-45.0
SC-210	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-Xtra Fasteners and Piranha Xtra Plates or Trufast #15 EHD Fastener with Trufast 2.4" Barbed Metal Seam Plates	12-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-45.0

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

System No.	Deck (Note 1)	Insulation Layer (Note 14)		Roof Cover						MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners	Fastener Spacing	Lap Width	Lap Spacing	Seam Weld	
SC-211	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fastener (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plate or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	12-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-45.0
SC-212	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fastener and Piranha Plate	12-inch o.c.	5-inch	67-inch o.c.	1.5-inch outside	-45.0
SC-213	Min. 22 ga., type B, Grade 33 steel, 6 ft span, 5/8" diameter puddle welds 6" o.c., side laps secured 24" o.c. w/ ¼"-14x1" long self-tapping hex-head screw	Min. 1-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fasteners and Piranha Plates or #15 Roofgrip with 2-3/8" Eyehook Seam Plates (AccuSeam)	6-inch o.c.	5.5-inch	66.5-inch o.c.	1.5-inch outside	-45.0
SC-214	Min. 22 ga., type B, Grade 33 steel, 7 ft span, HILTI X-HSN 24, 6" o.c. Side laps HILTI S-SLC 01 M HWH, 24" o.c.	Min. 1-inch, one or more layers, any combination	Prelim. attach	Sure-Weld (min. nominal 60-mil) or Sure-Weld EXTRA	Carlisle HP-X Fastener and Piranha Plate	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-52.5
SC-215	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fastener (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plate or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-52.5
SC-216	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Trufast #15 EHD Fastener with Trufast 2.4" Barbed Metal Seam Plates	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-52.5
SC-217	Min. 22 ga., type B, Grade 33 steel, 6 ft span, 5/8" diameter puddle welds 6" o.c., side laps secured 24" o.c. w/ ¼"-14x1" long self-tapping hex-head screw	Min. 1-inch, one or more layers, any combination	Prelim. attach	Sure-Weld (min. nominal 60-mil) or Sure-Weld EXTRA	Carlisle HP-Xtra Fasteners and Piranha Xtra Plates	6-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-52.5
SC-218	Min. 22 ga., type B, Grade 40 steel; 6 ft spans; 5/8" puddle welds 6" o.c.	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld (min. 60-mil) or Sure-Weld EXTRA	Carlisle HP-X Fastener and Piranha Plate	6-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-52.5
SC-219	Min. 22 ga., type B, Grade 33 steel, 6 ft span, 5/8" diameter puddle welds 6" o.c., side laps secured 24" o.c. w/ ¼"-14x1" long self-tapping hex-head screw	Min. 1-inch, one or more layers, any combination (optional for recover) followed by 3/8-inch Insulfoam R-Tech EPS or Fan-Fold	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fastener and Piranha Plate or #15 Roofgrip with 2-3/8" Eyehook Seam Plates (AccuSeam)	6-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-52.5

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

System No.	Deck (Note 1)	Insulation Layer (Note 14)		Roof Cover						MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners	Fastener Spacing	Lap Width	Lap Spacing	Seam Weld	
SC-220	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Trufast #15 EHD Fastener with Trufast 2.4" Barbed Metal Seam Plates	6-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-52.5
SC-221	Min. 22 ga., type B, Grade 33 steel, 6 ft span, 5/8" diameter puddle welds 6" o.c., side laps secured 24" o.c. w/ ¼"-14x1" long self-tapping hex-head screw	Min. 1-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fasteners and Piranha Plates or #15 Roofgrip with 2-3/8" Eyehook Seam Plates (AccuSeam)	6-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-52.5
SC-222	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fastener (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plate or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	12-inch o.c.	5.5-inch	42.5-inch o.c.	1.5-inch outside	-52.5
SC-223	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Trufast #15 EHD Fastener with Trufast 2.4" Barbed Metal Seam Plates	12-inch o.c.	5.5-inch	42.5-inch o.c.	1.5-inch outside	-52.5
SC-224	Min. 22 ga., type B, Grade 33 steel	Min. 1-inch, one or more layers, any combination	Prelim. Attach	Sure-Weld (min. 60-mil) or Sure-Weld EXTRA	Carlisle HP-X Fastener and Piranha Plate	6-inch o.c.	5.5-inch	139.5-inch o.c.	1.5-inch outside	-60.0
SC-225	Min. 22 ga., type B, Grade 33 steel, 7 ft span, 5/8" puddle welds, 6" o.c. Side laps ITW HWH #12 Tek 1, 24" o.c.	Min. 1-inch, one or more layers, any combination	Prelim. attach	Sure-Weld (min. nominal 60-mil) or Sure-Weld EXTRA	Carlisle HP-X Fastener and Piranha Plate	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-60.0
SC-226	Recover only: Min. 22 ga., type B, Grade 33 steel, 6 ft span, 5/8" diameter puddle welds 6" o.c., side laps secured 24" o.c. w/ ¼"-14x1" long self-tapping hex-head screw	3/8-inch Insulfoam R-Tech EPS or Fan-Fold	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fasteners and Piranha Plates or #15 Roofgrip with 2-3/8" Eyehook Seam Plates (AccuSeam)	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-60.0
SC-227	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-Xtra Fasteners and Piranha Xtra Plates (steel only) or Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plates	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-60.0
SC-228	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fasteners (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plate or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-60.0

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

System No.	Deck (Note 1)	Insulation Layer (Note 14)		Roof Cover						MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners	Fastener Spacing	Lap Width	Lap Spacing	Seam Weld	
SC-229	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Trufast #15 EHD Fastener with Trufast 2.4" Barbed Metal Seam Plates	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-60.0
SC-230	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Trufast #15 EHD Fastener with Trufast 2.4" Barbed Metal Seam Plates	6-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-60.0
SC-231	Recover only: Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	3/8-inch Insulfoam R-Tech EPS or Fan-Fold	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fastener (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plate or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	6-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-60.0
SC-232	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld HS	Carlisle HP-X Fastener (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plate	6-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-60.0
SC-233	Min. 22 ga., type B, 55 ksi steel, 6 ft span, 5/8" puddle welds 6" o.c. or min. 2,500 psi structural concrete	Min. 300 psi, min 2-inch thick cellular lightweight concrete	N/A	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fastener (steel only) or Carlisle HD 14-10 (concrete only) and Piranha Plate (through to engage structural deck)	6-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-67.5
SC-234	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fastener (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plate or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	6-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-67.5
SC-235	Min. 22 ga., type B, Grade 80 steel	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Trufast #15 EHD Fastener with Trufast 2.4" Barbed Metal Seam Plates	6-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-67.5
SC-236	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fastener (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plate or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	9-inch o.c.	5.5-inch	54.5-inch o.c.	1.5-inch outside	-75.0
SC-237	Min. 22 ga., type B, Grade 33 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fastener (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plate or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	6-inch o.c.	5.5-inch	42.5-inch o.c.	1.5-inch outside	-82.5
SC-238	Min. 22 ga., type B, Grade 33 steel	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Trufast #15 EHD Fastener with Trufast 2.4" Barbed Metal Seam Plates	12-inch o.c.	5.5-inch	42.5-inch o.c.	1.5-inch outside	-82.5

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

System No.	Deck (Note 1)	Insulation Layer (Note 14)		Roof Cover						MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners	Fastener Spacing	Lap Width	Lap Spacing	Seam Weld	
SC-239	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP-X Fastener (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plate or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	6-inch o.c.	5.5-inch	54.5-inch o.c.	1.5-inch outside	-90.0
SC-240	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Trufast #15 EHD Fastener with Trufast 2.4" Barbed Metal Seam Plates	6-inch o.c.	5.5-inch	42.5-inch o.c.	1.5-inch outside	-112.5
SURE-WELD FLEECEBACK APPLICATIONS:										
SC-241	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld FleeceBACK	Carlisle HP-X Fasteners (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plates or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	12-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-30.0
SC-242	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld FleeceBACK	Carlisle HP-Xtra Fasteners and Piranha Xtra Plates (steel only) or Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plates or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	12-inch o.c.	5.5-inch	114.5-inch o.c.	1.5-inch outside	-37.5
SC-243	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld FleeceBACK	Carlisle HP-X Fasteners (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plates or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-37.5
SC-244	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	Min. 1.5-inch, one or more layers, any combination	Prelim. attach	Sure-Weld FleeceBACK	Carlisle HP-X Fasteners (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plates or #15 Roofgrip (steel only) with 2-3/8" Eyehook Seam Plates (AccuSeam)	6-inch o.c.	5.5-inch	90.5-inch o.c.	1.5-inch outside	-60.0

TABLE 21: STEEL OR STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED ROOF COVER (RUSS STRIPS)

System No.	Deck	Insulation		Roof Cover			MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners	Attachment	
SC-245	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	One or more layers, any combination	Prelim. attached	Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA	Carlisle HP-X Fasteners (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plates	Sure-Weld TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 138-inch o.c. The plates are centered over each strip and fastened 6-inch o.c. Roof cover adhered to each strip by first priming with TPO Primer at the strip location, then rolling into place with a hand roller.	-30.0
SC-246	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	One or more layers, any combination	Prelim. attached	Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA	Carlisle HP-X Fasteners (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plates	Sure-Weld TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 114-inch o.c. The plates are centered over each strip and fastened 6-inch o.c. Roof cover adhered to each strip by first priming with TPO Primer at the strip location, then rolling into place with a hand roller.	-45.0
SC-247	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	One or more layers, any combination	Prelim. attached	Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA	Carlisle HP-X Fasteners (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plates	Sure-Weld TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 90-inch o.c. The plates are centered over each strip and fastened 6-inch o.c. Roof cover adhered to each strip by first priming with TPO Primer at the strip location, then rolling into place with a hand roller.	-52.5
SC-248	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	One or more layers, any combination	Prelim. attached	Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA	Carlisle HP-X Fasteners (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plates	Sure-Weld TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 120-inch o.c. The plates are centered over each strip and fastened 6-inch o.c. Roof cover adhered to each strip by first priming with HP-250 Primer at the strip location, then rolling into place with a hand roller.	-60.0
SC-249	Min. 22 ga., type B, Grade 80 steel or min. 2,500 psi structural concrete	One or more layers, any combination	Prelim. attached	Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA	Carlisle HP-X Fasteners (steel only), Carlisle HD 14-10 (concrete only) or CD-10 (concrete only) Fasteners and Piranha Plates	Sure-Weld TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 60-inch o.c. The plates are centered over each strip and fastened 12-inch o.c. Roof cover adhered to each strip by first priming with HP-250 Primer at the strip location, then rolling into place with a hand roller.	-60.0

TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1A: BONDED INSULATION, BONDED ROOF COVER
 REFER TO NOTE 18 FOR VAPOR BARRIER OPTIONS

System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attach	Type	Attach	Membrane	Application	
SURE-WELD OR SURE-WELD HS MEMBRANE APPLICATIONS:								
C-1.	Structural concrete	Min. 0.5-inch InsulBase or H-Shield	FAST 5-GJA	(Optional) Min. 0.5-inch base insulation	FAST 5-GJA	Sure-Weld	Aqua Base 120	-45.0
C-2.	Structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 5-GJA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FAST 5-GJA	Sure-Weld	CAV-GRIP III LVOC-AP, Sure-Weld BA, LVOC BA	-97.5
C-3.	Structural concrete	Min. 0.5-inch InsulBase, H-Shield or min. 1.5-inch SecurShield, H-Shield CG or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 5-GJA	Min. 0.5-inch SecurShield HD or SecurShield HD Plus	FAST 5-GJA	Sure-Weld	CAV-GRIP III LVOC-AP or LVOC BA	-112.5
C-4.	Structural concrete	Min. 0.5-inch InsulBase, H-Shield or min. 1.5-inch SecurShield, H-Shield CG or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 5-GJA	Min. 0.5-inch SecurShield HD or SecurShield HD Plus	FAST 5-GJA	Sure-Weld	CAV-GRIP III LVOC-AP or Sure-Weld BA	-120.0
C-5.	Structural concrete	Min. 1.5-inch InsulBase, HP-N, HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3, ACFoam II, Kingspan GreenGuard or Foamular 150 or Min. 1.0-inch Dow Styrofoam or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 5-GJA	Min. 0.5-inch HP Recovery Board	FAST 5-GJA	Sure-Weld	Sure-Weld BA	-157.5
C-6.	Structural concrete	Min. 1-inch Kingspan GreenGuard or Foamular 150 or Min. 1.0-inch Dow Styrofoam or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 5-GJA	Min. 0.25-inch DensDeck Prime	FAST 5-GJA	Sure-Weld	CAV-GRIP III LVOC-AP or Sure-Weld BA	-157.5
C-7.	Structural concrete	Min. 0.5-inch InsulBase or H-Shield	FAST 5-GJA	(Optional) Min. 0.5-inch base insulation	FAST 5-GJA	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-157.5
C-8.	Structural concrete	Min. 1.5-inch InsulBase, HP-N, HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3, ACFoam II or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 5-GJA	Min. 0.25-inch DensDeck Prime	FAST 5-GJA	Sure-Weld	CAV-GRIP III LVOC-AP or Sure-Weld BA	-232.5
C-9.	Structural concrete	Min. 2-inch InsulBase or H-Shield, SecurShield, H-Shield CG	FAST 5-GJA	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP or Sure-Weld BA	-240.0
C-10.	Structural concrete	Min. 0.5-inch InsulBase or H-Shield	FAST 100 LV, Flexible FAST (RIBBON)	(Optional) Min. 0.5-inch base insulation	FAST 100 LV, Flexible FAST (RIBBON)	Sure-Weld	Aqua Base 120	-45.0
C-11.	Structural concrete	One or two layers, min. 0.8-inch OPTIM-R	FAST 100LV or Flexible FAST (RIBBON, 6-inch o.c.)	Min. 0.5-inch SecurShield HD or SecurShield HD Plus or nominal 0.5-inch ECOSTORM VSH	FAST 100LV or Flexible FAST (RIBBON, 6-inch o.c.)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-60.0
C-12.	Structural concrete	One layer, min. 0.8-inch OPTIM-R	Flexible FAST (RIBBON, 6-inch o.c.)	Min. 0.5-inch SecurShield HD or SecurShield HD Plus or nominal 0.5-inch ECOSTORM VSH	Flexible FAST (RIBBON, 6-inch o.c.)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-67.5

TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1A: BONDED INSULATION, BONDED ROOF COVER
 REFER TO NOTE 18 FOR VAPOR BARRIER OPTIONS

System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attach	Type	Attach	Membrane	Application	
C-13.	Structural concrete	Min. 0.5-inch InsulBase, H-Shield or min. 1.5-inch SecurShield, H-Shield CG or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, FAST D-C, Flexible FAST (RIBBON)	Min. 0.5-inch SecurShield HD or SecurShield HD Plus	FAST 100 LV, FAST D-C, Flexible FAST (RIBBON)	Sure-Weld	LVOC BA	-112.5
C-14.	Structural concrete	Min. 0.5-inch InsulBase, H-Shield or min. 1.5-inch SecurShield, H-Shield CG or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, Flexible FAST (RIBBON)	Nominal 0.5-inch ECOSTORM VSH	FAST 100 LV, Flexible FAST (RIBBON)	Sure-Weld	LVOC BA	-112.5
C-15.	Structural concrete	Min. 0.5-inch InsulBase, H-Shield or min. 1.5-inch SecurShield, H-Shield CG or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, FAST D-C, Flexible FAST (RIBBON)	Min. 0.5-inch SecurShield HD or SecurShield HD Plus	FAST 100 LV, FAST D-C, Flexible FAST (RIBBON)	Sure-Weld	CAV-GRIP III LVOC-AP or Sure-Weld BA	-120.0
C-16.	Structural concrete	Min. 0.5-inch InsulBase, H-Shield or min. 1.5-inch SecurShield, H-Shield CG or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, Flexible FAST (RIBBON)	Nominal 0.5-inch ECOSTORM VSH	FAST 100 LV, Flexible FAST (RIBBON)	Sure-Weld	CAV-GRIP III LVOC-AP or Sure-Weld BA	-120.0
C-17.	Structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, FAST D-C, Flexible FAST (RIBBON)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV, FAST D-C, Flexible FAST (RIBBON)	Sure-Weld	CAV-GRIP III LVOC-AP or LVOC BA	-127.5
C-18.	Structural concrete	InsulBase, H-Shield, SecurShield, H-Shield CG	FAST 100 LV, FAST 5-GJA, FAST D-C, FAST D-T, Flexible FAST (RIBBON)	Min. 2-inch StormBase, H-Shield NB	FAST 100 LV, FAST 5-GJA, FAST D-C, FAST D-T, Flexible FAST (RIBBON)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-157.5
C-19.	Structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, FAST D-C, Flexible FAST (RIBBON)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV, FAST D-C, Flexible FAST (RIBBON)	Sure-Weld	Aqua Base 120, CAV-GRIP III LVOC-AP or Sure-Weld BA	-157.5
C-20.	Structural concrete	Min. 0.5-inch InsulBase or H-Shield	FAST 100 LV, Flexible FAST (RIBBON)	(Optional) Min. 0.5-inch base insulation	FAST 100 LV, Flexible FAST (RIBBON)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-157.5
C-21.	Structural concrete	Min. 2-inch StormBase, H-Shield NB	FAST 100 LV, FAST 5-GJA, FAST D-C, FAST D-T, Flexible FAST (RIBBON)	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP or Sure-Weld BA	-187.5
C-22.	Structural concrete	Min. 1.5-inch InsulBase, HP-N, HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3, ACFoam II, Kingspan GreenGuard or Foamular 150 or Min. 1.0-inch Dow Styrofoam or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, FAST D-C, Flexible FAST (RIBBON)	Min. 0.25-inch DensDeck Prime	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON)	Sure-Weld	CAV-GRIP III LVOC-AP or Sure-Weld BA	-232.5
C-23.	Structural concrete	Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, Flexible FAST (RIBBON)	Min. 0.5-inch HP Recovery Board	FAST 100 LV, Flexible FAST (RIBBON)	Sure-Weld	Sure-Weld BA	-232.5
C-24.	Structural concrete	Min. 2-inch InsulBase or H-Shield, SecurShield, H-Shield CG	FAST 100 LV, FAST D-C, Flexible FAST (RIBBON)	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP or Sure-Weld BA	-240.0

TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1A: BONDED INSULATION, BONDED ROOF COVER
 REFER TO NOTE 18 FOR VAPOR BARRIER OPTIONS

System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attach	Type	Attach	Membrane	Application	
C-25.	Structural concrete	Min. 1.5-inch InsulBase, HP-N, HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3, AC Foam II, Kingspan GreenGuard or Foamular 150 or Min. 1.0-inch Dow Styrofoam	FAST 100 LV, Flexible FAST (RIBBON)	Min. 0.5-inch HP Recovery Board	FAST 100 LV, Flexible FAST (RIBBON)	Sure-Weld	Sure-Weld BA	-322.5
C-26.	Structural concrete	Nominal 0.5-inch ECOSTORM VSH	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-352.5
C-27.	Structural concrete	Min. 0.5-inch InsulBase or H-Shield	FAST D-T (RIBBON)	(Optional) Min. 0.5-inch base insulation	FAST D-T (RIBBON)	Sure-Weld	Aqua Base 120	-45.0
C-28.	Structural concrete	Min. 0.5-inch InsulBase or H-Shield	FAST D-T (RIBBON)	(Optional) Min. 0.5-inch base insulation	FAST D-T (RIBBON)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-112.5
C-29.	Structural concrete	Min. 0.5-inch InsulBase, H-Shield or min. 1.5-inch SecurShield, H-Shield CG or min. 1-inch Insulfoam VIII	FAST D-T (RIBBON)	Min. 0.5-inch SecurShield HD or SecurShield HD Plus or nominal 0.5-inch ECOSTORM VSH	FAST D-T (RIBBON)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-112.5
C-30.	Structural concrete	Min. 0.5-inch InsulBase, H-Shield or min. 1.5-inch SecurShield, H-Shield CG or min. 1-inch Insulfoam VIII	FAST D-T (RIBBON)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FAST D-T (RIBBON)	Sure-Weld	Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-112.5
C-31.	Structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam VIII	FAST D-T (RIBBON)	Min. 0.25-inch DensDeck Prime	FAST D-T (RIBBON)	Sure-Weld	CAV-GRIP III LVOC-AP or Sure-Weld BA	-112.5
C-32.	Structural concrete	Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, FAST D-T, Flexible FAST (FULL)	Min. 2-inch StormBase, H-Shield NB	FAST 100 LV, FAST 5-GJA, FAST D-C, FAST D-T, Flexible FAST (RIBBON)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-82.5
C-33.	Structural concrete	Min. 1.5-inch Insulam (GYP)	Flexible FAST (FULL)	None	N/A	Sure-Weld	LVOC BA	-127.5
C-34.	Structural concrete	Min. 1.5-inch Insulam (GYP)	Flexible FAST (FULL)	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP, Sure-Weld BA or Aqua Base 120	-157.5
C-35.	Structural concrete	Min. 0.5-inch InsulBase or H-Shield	FAST 100 LV, Flexible FAST (FULL)	(Optional) Min. 0.5-inch base insulation	FAST 100 LV, Flexible FAST (FULL)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-157.5
C-36.	Structural concrete	(Optional) InsulBase, HP-N, or HP-W, ENRGY 3, H-Shield, SecurShield, H-Shield CG, or AC Foam II or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, Flexible FAST (FULL)	Min. 2-inch StormBase, H-Shield NB	FAST 100 LV, Flexible FAST (FULL)	Sure-Weld	Sure-Weld BA	-187.5
C-37.	Structural concrete	Min. 1.5-inch Insulam (WF)	Flexible FAST (FULL)	None	N/A	Sure-Weld	Sure-Weld BA	-255.0

TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1A: BONDED INSULATION, BONDED ROOF COVER
 REFER TO NOTE 18 FOR VAPOR BARRIER OPTIONS

System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attach	Type	Attach	Membrane	Application	
C-38.	Structural concrete	Min. 1-inch InsulBase or H-Shield, SecurShield, H-Shield CG	FAST 100 LV, Flexible FAST (FULL)	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP or Sure-Weld BA	-352.5
C-39.	Structural concrete	Min. 0.5-inch InsulBase or H-Shield	FAST D-T (FULL)	(Optional) Min. 0.5-inch base insulation	FAST D-T (FULL)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-157.5
C-40.	Structural concrete	(Optional) InsulBase, H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam VIII	FAST D-T (FULL)	Min. 2-inch StormBase, H-Shield NB	FAST D-T (FULL)	Sure-Weld	Sure-Weld BA	-187.5
C-41.	Structural concrete	Min. 1-inch InsulBase or H-Shield, SecurShield, H-Shield CG	FAST D-T (FULL)	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP or Sure-Weld BA	-352.5
C-42.	Structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Sure-Weld	CAV-GRIP III LVOC-AP, Sure-Weld BA, LVOC BA	-120.0
C-43.	Structural concrete	Min. 1.5-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	OB500	(Optional) Additional layers of base insulation	OB500	Sure-Weld	Aqua Base 120	-127.5
C-44.	Structural concrete	(Optional) Min. 1.5-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	OB500	Min. 0.25-inch DensDeck or DensDeck Prime	OB500	Sure-Weld	Aqua Base 120	-127.5
C-45.	Structural concrete	Min. 1.5-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	OB500	(Optional) Additional layers of base insulation	OB500	Sure-Weld	Sure-Weld BA	-150.0
C-46.	Structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	OB500	(Optional) Additional layers of base insulation	OB500	Sure-Weld	CAV-GRIP III LVOC-AP	-150.0
C-47.	Structural concrete	(Optional) Min. 1.5-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	OB500	Min. 0.25-inch DensDeck or DensDeck Prime	OB500	Sure-Weld	Sure-Weld BA	-150.0
C-48.	Structural concrete	(Optional) Min. 1.5-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	OB500	Min. 0.25-inch DensDeck Prime	OB500	Sure-Weld	CAV-GRIP III LVOC-AP	-150.0
C-49.	Structural concrete	Min. 0.5-inch InsulBase or H-Shield	OB500	(Optional) Min. 0.5-inch base insulation	OB500	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-157.5
C-50.	Structural concrete	Min. 2-inch InsulBase, H-Shield, SecurShield, H-Shield CG	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Sure-Weld	CAV-GRIP III LVOC-AP, Sure-Weld BA or Aqua Base 120	-247.5
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (PARTIAL BOND):								
C-51.	Structural concrete	Min. 1-inch InsulBase, HP-N or HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3, AC Foam II or min. 1.5-inch Kingspan GreenGuard Extruded Polystyrene or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON)	Min. 0.25-inch DensDeck Prime	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST, FAST D-T (RIBBON, 12-inch o.c.)	-37.5
C-52.	Structural concrete	Min. 1-inch InsulBase or H-Shield	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON)	(Optional) Additional layers of base insulation	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-C, Flexible FAST, FAST D-T (RIBBON, 12-inch o.c.)	-45.0

TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1A: BONDED INSULATION, BONDED ROOF COVER
 REFER TO NOTE 18 FOR VAPOR BARRIER OPTIONS

System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attach	Type	Attach	Membrane	Application	
C-53.	Structural concrete	Min. 1-inch Insulfoam SP	FAST 100 LV or FAST D-C (RIBBON)	(Optional) Additional layers of base insulation	FAST 100 LV or FAST D-C (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-C (RIBBON, 12-inch o.c.)	-45.0
C-54.	Structural concrete	(Optional) Min. 1-inch InsulBase or H-Shield or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON)	Min. 2-inch SecurShield HD Composite or H-Shield HD Composite	FAST 100 LV, FAST D-C (RIBBON or FULL)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-C, Flexible FAST, FAST D-T (RIBBON, 12-inch o.c.)	-45.0
C-55.	Structural concrete	Min. 1-inch InsulBase or H-Shield or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON)	Min. 0.25-inch DensDeck, DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or Min. 0.5-inch SecurShield HD or H-Shield HD	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-C, Flexible FAST, FAST D-T (RIBBON, 12-inch o.c.)	-45.0
C-56.	Structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG or min. 1-inch Insulfoam I or Insulfoam VIII or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON or FULL)	Min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD 90	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON or FULL)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST, FAST D-T (RIBBON, 6-inch o.c.)	-90.0
C-57.	Structural concrete	Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG or min. 1-inch Insulfoam I or Insulfoam VIII or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, Flexible FAST (RIBBON or FULL)	Nominal 0.5-inch ECOSTORM VSH	FAST 100 LV, Flexible FAST (RIBBON or FULL)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST, FAST D-T (RIBBON, 6-inch o.c.)	-90.0
C-58.	Structural concrete	Min. 1-inch InsulBase, H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam VIII	FAST D-T (RIBBON)	Min. 0.25-inch DensDeck Prime	FAST D-T (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST, FAST D-T (RIBBON, 12-inch o.c.)	-37.5
C-59.	Structural concrete	Min. 1-inch InsulBase or H-Shield	FAST D-T (RIBBON)	(Optional) Additional layers of base insulation	FAST D-T (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-C, Flexible FAST, FAST D-T (RIBBON, 12-inch o.c.)	-45.0
C-60.	Structural concrete	(Optional) Min. 1-inch InsulBase, H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam VIII	FAST D-T (RIBBON)	Min. 2-inch SecurShield HD Composite or H-Shield HD Composite	FAST D-T (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-C, Flexible FAST, FAST D-T (RIBBON, 12-inch o.c.)	-45.0
C-61.	Structural concrete	Min. 1-inch InsulBase, H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam VIII	FAST D-T (RIBBON)	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or Min. 0.5-inch SecurShield HD or H-Shield HD	FAST D-T (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-C, Flexible FAST, FAST D-T (RIBBON, 12-inch o.c.)	-45.0
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (SPATTER BOND):								
C-62.	Structural concrete	One or two layers, min. 0.8-inch OPTIM-R	FAST 100LV or Flexible FAST (RIBBON, 6-inch o.c.)	Min. 0.5-inch SecurShield HD or SecurShield HD Plus or nominal 0.5-inch ECOSTORM VSH	FAST 100LV or Flexible FAST (RIBBON, 6-inch o.c.)	Sure-Weld FleeceBACK	Flexible FAST D-T (SPATTER)	-60.0
C-63.	Structural concrete	One layer, min. 0.8-inch OPTIM-R	Flexible FAST (RIBBON, 6-inch o.c.)	Min. 0.5-inch SecurShield HD or SecurShield HD Plus or nominal 0.5-inch ECOSTORM VSH	Flexible FAST (RIBBON, 6-inch o.c.)	Sure-Weld FleeceBACK	Flexible FAST D-T (SPATTER)	-67.5

TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1A: BONDED INSULATION, BONDED ROOF COVER
 REFER TO NOTE 18 FOR VAPOR BARRIER OPTIONS

System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attach	Type	Attach	Membrane	Application	
C-64.	Structural concrete	Nominal 0.5-inch ECOSTORM VSH	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	None	N/A	Sure-Weld FleeceBACK	Flexible FAST D-T (SPATTER)	-352.5
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (FULL BOND):								
C-65.	Structural concrete	One or two layers, min. 0.8-inch OPTIM-R	FAST 100LV or Flexible FAST (RIBBON, 6-inch o.c.)	Min. 0.5-inch SecurShield HD or SecurShield HD Plus or nominal 0.5-inch ECOSTORM VSH	FAST 100LV or Flexible FAST (RIBBON, 6-inch o.c.)	Sure-Weld FleeceBACK	Flexible FAST (FULL) or HydroBond W-B	-60.0
C-66.	Structural concrete	One layer, min. 0.8-inch OPTIM-R	Flexible FAST (RIBBON, 6-inch o.c.)	Min. 0.5-inch SecurShield HD or SecurShield HD Plus or nominal 0.5-inch ECOSTORM VSH	Flexible FAST (RIBBON, 6-inch o.c.)	Sure-Weld FleeceBACK	Flexible FAST (FULL) or HydroBond W-B	-67.5
C-67.	Structural concrete	Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, Flexible FAST, FAST 5-GJA (RIBBON or FULL)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV, Flexible FAST, FAST 5-GJA (RIBBON or FULL)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST, FAST D-T (FULL)	-127.5
C-68.	Structural concrete	Min. 0.5-inch InsulBase, H-Shield	FAST 100 LV, FAST 5-GJA (RIBBON or FULL)	Min. 0.5-inch base insulation	FAST 100 LV, FAST 5-GJA (RIBBON or FULL)	Sure-Weld FleeceBACK	FAST D-T (FULL)	-135.0
C-69.	Structural concrete	Min. 1-inch InsulBase, H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON or FULL)	Min. 0.5-inch SecurShield HD or H-Shield HD or Min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON or FULL)	Sure-Weld FleeceBACK	FAST D-T (FULL)	-135.0
C-70.	Structural concrete	Min. 1-inch InsulBase, H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, Flexible FAST (RIBBON or FULL)	Nominal 0.5-inch ECOSTORM VSH	FAST 100 LV, Flexible FAST (RIBBON or FULL)	Sure-Weld FleeceBACK	FAST D-T (FULL)	-135.0
C-71.	Structural concrete	Min. 1-inch InsulBase, H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV or FAST D-C (RIBBON or FULL)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV or FAST D-C (RIBBON or FULL)	Sure-Weld FleeceBACK	FAST D-T (FULL)	-135.0
C-72.	Structural concrete	InsulBase, H-Shield, SecurShield, H-Shield CG	FAST 100 LV, FAST 5-GJA, FAST D-C, FAST D-T, Flexible FAST (RIBBON)	Min. 2-inch StormBase, H-Shield NB	FAST 100 LV, FAST 5-GJA, FAST D-C, FAST D-T, Flexible FAST (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-157.5
C-73.	Structural concrete	Min. 0.5-inch InsulBase, H-Shield	FAST 100 LV, Flexible FAST, FAST 5-GJA (RIBBON or FULL)	Min. 0.5-inch base insulation	FAST 100 LV, Flexible FAST, FAST 5-GJA (RIBBON or FULL)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-157.5
C-74.	Structural concrete	Min. 1-inch InsulBase or H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON or FULL)	Min. 0.5-inch SecurShield HD or H-Shield HD	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON or FULL)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-157.5
C-75.	Structural concrete	Min. 1-inch InsulBase or H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, Flexible FAST (RIBBON or FULL)	Nominal 0.5-inch ECOSTORM VSH	FAST 100 LV, Flexible FAST (RIBBON or FULL)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-157.5

TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1A: BONDED INSULATION, BONDED ROOF COVER
 REFER TO NOTE 18 FOR VAPOR BARRIER OPTIONS

System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attach	Type	Attach	Membrane	Application	
C-76.	Structural concrete	Min. 1.5-inch InsulBase, HP-N, HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3, ACFoam II, Kingspan GreenGuard or Foamular 150 or Min. 1.0-inch Dow Styrofoam or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 5-GJA	Min. 0.5-inch HP Recovery Board	FAST 5-GJA	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-157.5
C-77.	Structural concrete	Min. 1-inch InsulBase or H-Shield or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV or FAST D-C (RIBBON)	Min. 0.5-inch SecurShield HD or H-Shield HD	FAST 100 LV or FAST D-C (RIBBON)	Sure-Weld FleeceBACK	HydroBond W-B	-160.0
C-78.	Structural concrete	Min. 1-inch InsulBase or H-Shield or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV (RIBBON)	Nominal 0.5-inch ECOSTORM VSH	FAST 100 LV (RIBBON)	Sure-Weld FleeceBACK	HydroBond W-B	-160.0
C-79.	Structural concrete	Min. 1-inch InsulBase or H-Shield or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV or FAST D-C (RIBBON)	Min. 0.5-inch SecurShield HD or H-Shield HD	FAST 100 LV or FAST D-C (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-C (FULL)	-172.5
C-80.	Structural concrete	Min. 1-inch InsulBase or H-Shield or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV (RIBBON)	Nominal 0.5-inch ECOSTORM VSH	FAST 100 LV (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV (FULL)	-172.5
C-81.	Structural concrete	Min. 2-inch StormBase, H-Shield NB	FAST 100 LV, FAST 5-GJA, FAST D-C, FAST D-T, Flexible FAST (RIBBON)	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-187.5
C-82.	Structural concrete	Min. 1-inch InsulBase or H-Shield or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV or FAST D-C (RIBBON)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV or FAST D-C (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-C (FULL)	-187.5
C-83.	Structural concrete	Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV or FAST D-C (RIBBON)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV or FAST D-C (RIBBON)	Sure-Weld FleeceBACK	HydroBond W-B	-232.5
C-84.	Structural concrete	Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, FAST D-C, Flexible FAST (RIBBON)	Min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST 100 LV, FAST D-C, Flexible FAST (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV (FULL)	-232.5
C-85.	Structural concrete	Min. 1-inch InsulBase or H-Shield	FAST 100 LV or FAST D-C (RIBBON)	(Optional) Additional layers of base insulation	FAST 100 LV or FAST D-C (RIBBON)	Sure-Weld FleeceBACK	HydroBond W-B	-280.0
C-86.	Structural concrete	Min. 1.5-inch InsulBase, HP-N, HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3, ACFoam II, Kingspan GreenGuard or Foamular 150 or Min. 1.0-inch Dow Styrofoam	FAST 100 LV, FAST D-C, Flexible FAST (RIBBON)	Min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST 100 LV, FAST D-C, Flexible FAST (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV (FULL)	-285.0
C-87.	Structural concrete	Min. 1-inch Insulfoam SP	FAST 100 LV or FAST D-C (RIBBON)	(Optional) Additional layers of base insulation	FAST 100 LV or FAST D-C (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-C (FULL)	-290.0
C-88.	Structural concrete	Min. 1-inch InsulBase or H-Shield	FAST 100 LV or FAST D-C (RIBBON)	(Optional) Additional layers of base insulation	FAST 100 LV or FAST D-C (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-C (FULL)	-322.5
C-89.	Structural concrete	Min. 1.5-inch InsulBase, HP-N, HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3, ACFoam II, Kingspan GreenGuard or Foamular 150 or Min. 1.0-inch Dow Styrofoam or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, Flexible FAST (RIBBON)	Min. 0.5-inch HP Recovery Board	FAST 100 LV, Flexible FAST (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-330.0

TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1A: BONDED INSULATION, BONDED ROOF COVER
 REFER TO NOTE 18 FOR VAPOR BARRIER OPTIONS

System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attach	Type	Attach	Membrane	Application	
C-90.	Structural concrete	Min. 1-inch InsulBase or H-Shield	FAST 100 LV or FAST D-C (RIBBON)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV or FAST D-C (RIBBON)	Sure-Weld FleeceBACK	HydroBond W-B	-395.0
C-91.	Structural concrete	Min. 0.5-inch InsulBase, H-Shield	FAST D-T (RIBBON)	(Optional) Additional layers of base insulation	FAST D-T (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-C, FAST D-T (FULL) or HydroBond W-B	-112.5
C-92.	Structural concrete	Min. 0.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam VIII	FAST D-T (RIBBON)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board or Min. 0.5-inch SecurShield HD or H-Shield HD	FAST D-T (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-C, FAST D-T (FULL) or HydroBond W-B	-112.5
C-93.	Structural concrete	Min. 0.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam VIII	FAST D-T (RIBBON)	Nominal 0.5-inch ECOSTORM VSH	FAST D-T (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-T (FULL) or HydroBond W-B	-112.5
C-94.	Structural concrete	(Optional) Min. 0.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam VIII	FAST D-T (RIBBON)	Min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST D-T (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-C, FAST D-T (FULL) or HydroBond W-B	-112.5
C-95.	Structural concrete	(Optional) InsulBase, HP-N, or HP-W, ENRGY 3, H-Shield, SecurShield, H-Shield CG, or AC Foam II or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, Flexible FAST (FULL)	Min. 2-inch StormBase, H-Shield NB	FAST 100 LV, Flexible FAST (FULL)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-187.5
C-96.	Structural concrete	Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV (FULL)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV (FULL)	Sure-Weld FleeceBACK	HydroBond W-B	-322.5
C-97.	Structural concrete	Min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, Flexible FAST (FULL)	Min. 7/16-inch APA rated OSB or min. 0.25-inch DensDeck or DensDeck Prime	FAST 100 LV, Flexible FAST (FULL)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-322.5
C-98.	Structural concrete	Min. 1-inch Insulfoam SP	FAST 100 LV (FULL)	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV (FULL)	-330.0
C-99.	Structural concrete	Nominal 0.5-inch ECOSTORM VSH	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-T, Flexible FAST, Flexible FAST D-T (FULL) or HydroBond W-B	-352.5
C-100.	Structural concrete	Min. 1-inch Insulfoam SP	Flexible FAST (FULL)	None	N/A	Sure-Weld FleeceBACK	Flexible FAST (FULL)	-365.0
C-101.	Structural concrete	Min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST 100 LV, Flexible FAST (FULL)	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV (FULL)	-427.5
C-102.	Structural concrete	Min. 1-inch InsulBase, H-Shield, SecurShield or H-Shield CG	FAST 100 LV, Flexible FAST (FULL)	(Optional) Min. 1-inch base insulation	FAST 100 LV, Flexible FAST (FULL)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-427.5
C-103.	Structural concrete	Min. 7/16-inch APA rated OSB min. 0.25-inch DensDeck or DensDeck Prime	FAST 100 LV, Flexible FAST (FULL)	(Optional) One or more layers min. 7/16-inch APA rated OSB min. 0.25-inch DensDeck or DensDeck Prime	FAST 100 LV, Flexible FAST (FULL)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-457.5

TABLE 3A: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1A: BONDED INSULATION, BONDED ROOF COVER
 REFER TO NOTE 18 FOR VAPOR BARRIER OPTIONS

System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attach	Type	Attach	Membrane	Application	
C-104.	Structural concrete	InsulBase, HP-N, or HP-W, ENRGY 3, H-Shield, SecurShield, H-Shield CG, or AC Foam II	FAST 100 LV, Flexible FAST (FULL)	Min. 7/16-inch APA rated OSB, 0.25-inch DensDeck or thick DensDeck Prime	FAST 100 LV, Flexible FAST (FULL)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-457.5
C-105.	Structural concrete	Min. 0.5-inch InsulBase, H-Shield	OB500	Min. 0.5-inch base insulation	OB500	Sure-Weld FleeceBACK	FAST 100 LV (FULL)	-157.5
SURE-WELD AFX MEMBRANE APPLICATIONS:								
C-106.	Structural concrete	Min. 0.5-inch HP Recovery Board	HA	None	HA	Sure-Weld AFX	Hot Asphalt	-150.0
C-107.	Structural concrete	One or more layers min. 1.5-inch InsulBase, Polyiso HP-N, Polyiso HP-W, AC Foam II, H-Shield, SecurShield, H-Shield CG, ENRGY 3 or ISO 95+ GL	HA	Min. 0.5-inch HP Recovery Board	HA	Sure-Weld AFX	Hot Asphalt	-150.0
SURE-WELD SAT-TPO MEMBRANE APPLICATIONS:								
C-108.	Structural concrete	(Optional) One or more layers, min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, Flexible FAST (FULL)	Min. 2-inch Insulfoam SP	FAST 100 LV, Flexible FAST (FULL)	Sure-Weld SAT-TPO	Self-adhered	-315.0
SURE-WELD FLEECEBACK® RL™ APPLICATIONS:								
C-109.	Structural concrete	(Optional) Min. 0.5-inch InsulBase or H-Shield or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, Flexible FAST, FAST D-T (RIBBON or FULL)	Min. 2.0-inch InsulBase RL	FAST 100 LV, Flexible FAST, FAST D-T (RIBBON or FULL)	Sure-Weld FleeceBACK® RL™		-142.5

TABLE 3B: STRUCTURAL CONCRETE DECKS – NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1A: BONDED INSULATION, BONDED BASE PLY, BONDED ROOF COVER
 REFER TO NOTE 18 FOR VAPOR BARRIER OPTIONS

System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive (Notes 16 & 17)		MDP (psf)
		Type	Attach	Type	Attach	Base Ply	Top Ply	
SURE-WELD AFX MEMBRANE APPLICATIONS:								
C-110.	Structural concrete	Min. 2-inch InsulBase or H-Shield	Hot asphalt	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Hot asphalt	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-157.5
C-111.	Structural concrete	Min. 1.5-inch InsulBase or H-Shield	FAST 5-GJA (RIBBON)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FAST 5-GJA (RIBBON)	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-97.5
C-112.	Structural concrete	Min. 1.5-inch InsulBase or H-Shield	FAST 100 LV, FAST D-C, Flexible FAST (RIBBON)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV, FAST D-C, Flexible FAST (RIBBON)	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-157.5
C-113.	Structural concrete	Min. 1.5-inch InsulBase or H-Shield	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON)	Min. 0.25-inch DensDeck Prime	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON)	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-202.5
C-114.	Structural concrete	Min. 1.5-inch InsulBase or H-Shield	FAST D-T (RIBBON)	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	FAST D-T (RIBBON)	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-112.5
C-115.	Structural concrete	Min. 1.5-inch InsulBase or H-Shield or min. 2-inch Insulfoam I or VIII	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-105.0
C-116.	Structural concrete	Min. 2-inch Insulfoam I or VIII	OB500	Min. 0.25-inch DensDeck Prime	OB500	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-120.0
C-117.	Structural concrete	Min. 1.5-inch InsulBase or H-Shield	OB500	Min. 0.25-inch DensDeck Prime	OB500	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-150.0
C-118.	Structural concrete	Min. 2-inch InsulBase or H-Shield	OB500	Min. 0.5-inch DensDeck Prime	OB500	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-202.5

**TABLE 3C: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER
SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, PLATE-BONDED ROOF COVER**

System No.	Deck (Note 1)	Insulation Layer	Attachment		Roof Cover	MDP (psf)
			Fasteners	Density		
RHINO BOND SYSTEMS:						
C-119.	Structural concrete	Min. 1-inch thick, one or more layers, any combination.	Carlisle HD 14-10 Concrete Fastener or Carlisle CD-10 and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	1 per 5.33 ft ² (6 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29; Note A	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer's instructions.	-45.0
C-120.	Structural concrete	Min. 1-inch thick, one or more layers, any combination.	Carlisle HD 14-10 Concrete Fastener or Carlisle CD-10 and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	1 per 4 ft ² (8 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29; Note A	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer's instructions.	-52.5
C-121.	Structural concrete	Min. 1-inch thick, one or more layers, any combination.	Carlisle HD 14-10 Concrete Fastener or Carlisle CD-10 and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	1 per 4 ft ² (8 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29; Note A	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer's instructions.	-60.0
C-122.	Structural concrete	Min. 1.5-inch thick, one or more layers, any combination. Note B.	Carlisle HD 14-10 Concrete Fastener or Carlisle CD-10 and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	1 per 2 ft ² (16 parts per 4 x 8 ft board) Per FM Loss Prevention Data Sheet 1-29	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer's instructions.	-97.5
C-123.	Structural concrete	Min. 1.5-inch thick, one or more layers, any combination, prelim attach (Notes 5 & 14)	Carlisle HD 14-10 Concrete Fastener and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	12-inch o.c. in rows 120-inch o.c.	Sure-Weld (minimum 60-mil) or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer's instructions.	-30.0
C-124.	Structural concrete	Min. 1.5-inch thick, one or more layers, any combination, prelim attach (Notes 5 & 14)	Carlisle HD 14-10 Concrete Fastener or Carlisle CD-10 and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	6-inch o.c. in rows 120-inch o.c.	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer's instructions.	-37.5
C-125.	Structural concrete	Min. 1.5-inch thick, one or more layers, any combination, prelim attach (Notes 5 & 14)	Carlisle HD 14-10 Concrete Fastener or Carlisle CD-10 and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	12-inch o.c. in rows 60-inch o.c.	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer's instructions.	-37.5
C-126.	Structural concrete	Min. 1.5-inch thick, one or more layers, any combination, prelim attach (Notes 5 & 14)	Carlisle HD 14-10 Concrete Fastener or Carlisle CD-10 and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	12-inch o.c. in rows 60-inch o.c.	Sure-Weld (minimum 60-mil) or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer's instructions.	-45.0
C-127.	Structural concrete	Min. 1.5-inch thick, one or more layers, any combination, prelim attach (Notes 5 & 14)	Carlisle HD 14-10 Concrete Fastener or Carlisle CD-10 and RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO)	6-inch o.c. in rows 120-inch o.c.	Sure-Weld (minimum 60-mil) or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) or RHINO BOND TreadSafe Plate (TPO) with RHINO BOND tool per manufacturer's instructions.	-52.5

TABLE 3C: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (Tear-Off) or RECOVER
SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, PLATE-BONDED ROOF COVER

System No.	Deck (Note 1)	Insulation Layer	Attachment		Roof Cover	MDP (psf)
			Fasteners	Density		
C-128.	Structural concrete	Min. 1.5-inch thick, one or more layers, any combination, prelim attach (Notes 5 & 14)	Carlisle HD 14-10 Concrete Fastener or Carlisle CD-10 and RHINOBOND Insulation Plate (TPO) or RHINOBOND TreadSafe Plate (TPO)	6-inch o.c. in rows 60-inch o.c.	Sure-Weld or Sure-Weld EXTRA bonded to RHINOBOND Insulation Plate (TPO) or RHINOBOND TreadSafe Plate (TPO) with RHINOBOND tool per manufacturer’s instructions.	-67.5
Notes:	A. The plate/fastener combination offset 12 inch from adjacent rows. B. For these assemblies each row of insulation is staggered by 1 foot.					
ISOWELD INDUCTION WELDING SYSTEM:						
C-129.	Structural concrete	One or more layers, any combination, min. 1.5-inch (Notes 5 & 14)	Dekfast #14 or Dekfast #15 HS with SFS <i>isoweld</i> ® TPO Plates (FI-P-6.8-TPO)	12-inch o.c. in rows 60-inch o.c.	Sure-Weld or Sure-Weld EXTRA bonded to SFS <i>isoweld</i> ® TPO Plates with SFS <i>isoweld</i> ® 3000 stand-up tool.	-37.5
C-130.	Structural concrete	One or more layers, any combination, min. 1.5-inch (Note 14)	Dekfast #14 or Dekfast #15 HS with SFS <i>isoweld</i> ® TPO Plates (FI-P-6.8-TPO)	1 per 6 ft² 2x3-ft grid, staggered	Sure-Weld or Sure-Weld EXTRA bonded to SFS <i>isoweld</i> ® TPO Plates with SFS <i>isoweld</i> ® 3000 stand-up tool.	-52.5
C-131.	Structural concrete	One or more layers, any combination, min. 1.5-inch (Note 14)	Dekfast #14 or Dekfast #15 HS with SFS <i>isoweld</i> ® TPO Plates (FI-P-6.8-TPO)	1 per 4 ft² 2x2-ft grid, staggered	Sure-Weld or Sure-Weld EXTRA bonded to SFS <i>isoweld</i> ® TPO Plates with SFS <i>isoweld</i> ® 3000 stand-up tool.	-60.0
C-132.	Structural concrete	One or more layers, any combination, min. 1.5-inch (Note 14)	Dekfast #14 or Dekfast #15 HS with SFS <i>isoweld</i> ® TPO Plates (FI-P-6.8-TPO)	1 per 3 ft² 1.5 x 2-ft grid, staggered	Sure-Weld or Sure-Weld EXTRA bonded to SFS <i>isoweld</i> ® TPO Plates with SFS <i>isoweld</i> ® 3000 stand-up tool.	-82.5
C-133.	Structural concrete	One or more layers, any combination, min. 1.5-inch (Notes 5 & 14)	Dekfast #14 or Dekfast #15 HS with SFS <i>isoweld</i> ® TPO Plates (FI-P-6.8-TPO)	6-inch o.c. in rows 60-inch o.c.	Sure-Weld or Sure-Weld EXTRA bonded to SFS <i>isoweld</i> ® TPO Plates with SFS <i>isoweld</i> ® 3000 stand-up tool.	-90.0

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

System No.	Deck	Primer	Roof Cover (Notes 16 & 17)		MDP (psf)
			Type	Attach	
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (SPATTER BOND):					
C-134.	Structural concrete	None	Sure-Weld FleeceBACK	Flexible FAST Dual Tank Adhesive (SPATTER at 3.5-4.0 lbs/sq)	-722.5
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (FULL BOND):					
C-135.	Structural concrete	None	Sure-Weld FleeceBACK	FAST D-C (FULL)	-392.5
C-136.	Structural concrete	None	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-495.0
SURE-WELD AFX MEMBRANE APPLICATIONS:					
C-137.	Structural concrete	None	Sure-Weld AFX	Hot Asphalt	-97.5
C-138.	Structural concrete	CCW-702 or cut-back primer at 250-300 ft²/gal	Sure-Weld AFX	Hot Asphalt	-495.0
SURE-WELD SAT-TPO MEMBRANE APPLICATIONS:					
C-139.	Structural concrete	None	Sure-Weld SAT-TPO	Self-adhered	-425.0

**TABLE 3E: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER
SYSTEM TYPE G: OPTIONAL INSULATION, LOOSE-LAID ROOF COVER, PRESSURE EQUALIZING VENT**

System No.	Deck (Note 1)	Air Barrier	Insulation	Underlayment	Roof Cover		MDP (psf)
					Type	Attach	
C-140.	Min. 2,500 psi structural concrete	VapAir Seal 725TR or SureMB 90TG or 120TG/torch-applied in accordance with Carlisle and Acrylife requirements.	(Optional) Any fire classified roof insulation and/or coverboard combination, any thickness, loose-laid with staggered joints	12-inch wide strips of polypropylene, air permeable filter fabric, loose laid in a crossing pattern, connecting the V2T vents	Sure-Weld or Sure-Weld HS	Acrylife V2T installed in accordance with Acrylife instructions, spaced maximum 50 ft o.c.	-97.5

TABLE 4A: LIGHTWEIGHT CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1A: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Note 1)	Lightweight Concrete (Note 15)	Base Insulation Layer		Coverboard		Roof Cover / Adhesive (Notes 16 & 17)	MDP (psf)
			Type	Attachment	Type	Attachment		
LWC-1	Structural concrete	ELASTIZELL (FL4994): Min. 250 psi, Min. 2-inch thick, Elastizell Range II LWIC	Min. 1-inch InsulBase or H-Shield, SecurShield, H-Shield CG	FAST 100 LV, Flexible FAST (FULL)	(Optional) Additional layers base insulation	FAST 100 LV, Flexible FAST (FULL)	Sure-Weld / CAV-GRIP III LVOC-AP or Sure-Weld BA	-340.0

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

System No.	Deck (Note 1)	Lightweight Concrete (Note 15)	Anchor Sheet			Insulation			Roof Cover / Adhesive (Notes 16 & 17)	MDP (psf)
			Type	Fasteners	Attach	Base	Top	Attach		
LWC-2	Min. 22 ga., Type B, Grade 33 vented steel or structural concrete	ELASTIZELL (FL4994): Min. 250 psi, Min. 2-inch thick, Elastizell Range II LWIC	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, HP-N or HP-W, H-Shield, SecurShield, H-Shield CG, AC Foam II, or ENRGY 3	Min. 1.0-inch HP Recovery Board	Hot asphalt	Sure-Weld AFX / Hot asphalt	-45.0

TABLE 4C: LIGHTWEIGHT CONCRETE OVER STEEL DECK - NEW CONSTRUCTION OR RE-ROOF (TEAR OFF)
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

System No.	Deck (Note 1)	Lightweight Concrete (Note 15)				Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Surface Treatment	Supplemental Attachment		Type	Attach	
				Fasteners	Density			
SURE-WELD OR SURE-WELD HS MEMBRANE APPLICATIONS:								
LWC-3	Min. 24 ga., Type 1.0FDV Grade 80 steel at max. 6 ft spans; 5/8" puddle welds wth weld washers, 8-inch o.c.	CELCORE (FL2037): Treatment: Celcore S-1 Deck Preparation Slurry LWC: Min. 370 psi, Min. 2-inch thick, Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture	Celcore PVA	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-37.5
LWC-4	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6-inch o.c.	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (cast with or without min. 1-inch EPS holey board). Note A.	None	None	N/A	Sure-Weld	Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-60.0
LWC-5	Min. 22 ga., Type B, Grade 33 steel at max. 4 ft spans attached 6-inch o.c.	CELCORE (FL2037): Min. 38 pcf wet cast density, min. 200 psi, min. 1.625-inch thick Celcore MF Cellular Concrete followed by min. 1-inch EPS holey board with min. 2.0-inch thick top slurry coat. Note A.	Celcore PVA	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-67.5
LWC-6	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6-inch o.c.	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (cast with or without min. 1-inch EPS holey board). Note A.	None	Carlisle HP Fastener with Insulation Plate	1 per 9 ft²	Sure-Weld	Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-67.5 <i>Note B</i>
LWC-7	Min. 22 ga., Type BV, Grade 40 steel at max. 6 ft spans; 5/8" puddle welds, 6-inch o.c.	CELCORE (FL2037): Treatment: Celcore S-1 Deck Preparation Slurry LWC: Min. 310 psi, Min. 2-inch thick, Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture	Celcore PVA	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP	-82.5
LWC-8	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6-inch o.c.	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (cast with or without min. 1-inch EPS holey board). Note A.	None	Carlisle HP Fastener with Insulation Plate	1 per 1 ft²	Sure-Weld	Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-120.0 <i>Note B</i>
LWC-9	Min. 22 ga., Type BV, Grade 33 steel; max. 5-ft spans; 5/8" puddle welds with weld-washers spaced 6-inch o.c.	CONCRECEL (FL5584 & FL10500): Deck primed with Concrecel Bonding Agent at 600 ft²/gallon. Min. 350 psi, min. 2-inch thick, Concrecel Lightweight Insulating Concrete (Minimum 1-inch thick, minimum 1.0 pcf EPS holey board required)	(Optional) Concrecel Curing Compound	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-97.5
LWC-10	Min. 22 ga., Type BV, Grade 33 steel; max. 6-ft spans; 5/8" puddle welds spaced 6-inch o.c.	CONCRECEL (FL5584 & FL10500): Min. 350 psi, min. 2-inch thick, Concrecel Lightweight Insulating Concrete (No EPS board)	None	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-105.0

TABLE 4C: LIGHTWEIGHT CONCRETE OVER STEEL DECK - NEW CONSTRUCTION OR RE-ROOF (TEAR OFF)
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

System No.	Deck (Note 1)	Lightweight Concrete (Note 15)				Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Surface Treatment	Supplemental Attachment		Type	Attach	
				Fasteners	Density			
LWC-11	Min. 22 ga., Type BV, Grade 33 steel; max. 6-ft spans; 5/8” puddle welds with weld-washers spaced 6-inch o.c.	CONCRECEL (FL5584 & FL10500): Min. 350 psi, min. 2-inch thick, Concrecel Lightweight Insulating Concrete (Minimum 2-inch thick, minimum 1.0 pcf EPS holey board required)	None	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-135.0
LWC-12	Min. 20 ga., Type BV, Grade 33 steel; max. 6-ft 3-inch spans; 5/8” puddle welds or Tek/5 screws spaced 6-inch o.c.	ELASTIZELL (FL4994): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (EPS board optional)	None	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-52.5
LWC-13	Min. 22 ga., Type BV, Grade 33 steel; max. 6-ft spans; 5/8” puddle welds or Tek/5 screws spaced 6-inch o.c.	ELASTIZELL (FL4994): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (Minimum 2-inch thick, minimum 1.0 pcf EPS holey board required)	None	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-82.5
LWC-14	Min. 22 ga., Type BV, Grade 33 steel; max. 5-ft spans; 5/8” puddle welds or Tek/5 screws spaced 6-inch o.c.	ELASTIZELL (FL4994): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (Minimum 1-inch thick, minimum 1.0 pcf EPS holey board required)	None	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-97.5
LWC-15	Min. 22 ga., Type BV, Grade 33 steel; max. 5-ft spans; 5/8” puddle welds or Tek/5 screws spaced 6-inch o.c.	ELASTIZELL (FL4994): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (Minimum 2-inch thick, minimum 1.0 pcf EPS holey board required)	None	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-112.5
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (PARTIAL BOND):								
LWC-16	Min. 24 ga., Type 1.0FDV Grade 80 steel at max. 6 ft spans; 5/8” puddle welds wth weld washers, 8-inch o.c.	CELCORE (FL2037): Treatment: Celcore S-1 Deck Preparation Slurry LWC: Min. 370 psi, Min. 2-inch thick, Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture	Celcore PVA	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON, 12-inch o.c.)	-37.5
LWC-17	Min. 22 ga., Type BV, Grade 40 steel at max. 6 ft spans; 5/8” puddle welds, 6-inch o.c.	CELCORE (FL2037): Treatment: Celcore S-1 Deck Preparation Slurry LWC: Min. 310 psi, Min. 2-inch thick, Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture	Celcore PVA	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON, 6-inch o.c.)	-82.5
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (FULL BOND):								
LWC-18	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6-inch o.c.	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (cast with or without min. 1-inch EPS holey board). Note A.	Celcore PVA	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-60.0

TABLE 4C: LIGHTWEIGHT CONCRETE OVER STEEL DECK - NEW CONSTRUCTION OR RE-ROOF (TEAR OFF)
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

System No.	Deck (Note 1)	Lightweight Concrete (Note 15)				Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Surface Treatment	Supplemental Attachment		Type	Attach	
				Fasteners	Density			
LWC-19	Min. 22 ga., Type B, Grade 33 steel at max. 4 ft spans attached 6-inch o.c.	CELCORE (FL2037): Min. 38 pcf wet cast density, min. 200 psi, min. 1.625-inch thick Celcore MF Cellular Concrete followed by min. 1-inch EPS holey board with min. 2.0-inch thick top slurry coat. Note A.	Celcore PVA	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-67.5
LWC-20	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6-inch o.c.	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (cast with or without min. 1-inch EPS holey board). Note A.	Celcore PVA	Carlisle HP Fastener with Insulation Plate	1 per 9 ft²	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-67.5 <i>Note B</i>
LWC-21	Min. 22 ga., Type B, Grade 33 steel at max. 6 ft spans attached 6-inch o.c.	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (cast with or without min. 1-inch EPS holey board). Note A.	Celcore PVA	Carlisle HP Fastener with Insulation Plate	1 per 1 ft²	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-120.0 <i>Note B</i>
LWC-22	Min. 22 ga., Type BV, Grade 33 steel; max. 5-ft spans; 5/8” puddle welds with weld-washers spaced 6-inch o.c.	CONCRECEL (FL5584 & FL10500): Deck primed with Concrecel Bonding Agent at 600 ft²/gallon. Min. 350 psi, min. 2-inch thick, Concrecel Lightweight Insulating Concrete (Minimum 1-inch thick, minimum 1.0 pcf EPS holey board required)	(Optional) Concrecel Curing Compound	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV or FAST D-C (FULL)	-97.5
LWC-23	Min. 22 ga., Type BV, Grade 33 steel; max. 6-ft spans; 5/8” puddle welds spaced 6-inch o.c.	CONCRECEL (FL5584 & FL10500): Min. 350 psi, min. 2-inch thick, Concrecel Lightweight Insulating Concrete (No EPS board)	None	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV or FAST D-C (FULL)	-105.0
LWC-24	Min. 22 ga., Type BV, Grade 33 steel; max. 6-ft spans; 5/8” puddle welds with weld-washers spaced 6-inch o.c.	CONCRECEL (FL5584 & FL10500): Min. 350 psi, min. 2-inch thick, Concrecel Lightweight Insulating Concrete (Minimum 2-inch thick, minimum 1.0 pcf EPS holey board required)	None	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV or FAST D-C (FULL)	-135.0
LWC-25	Min. 20 ga., Type BV, Grade 33 steel; max. 6-ft 3-inch spans; 5/8” puddle welds or Tek/5 screws spaced 6-inch o.c.	ELASTIZELL (FL4994): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (EPS board optional)	None	None	N/A	Sure-Weld FleeceBACK	Flexible FAST (FULL)	-52.5
LWC-26	Min. 22 ga., Type BV, Grade 33 steel; max. 6-ft spans; 5/8” puddle welds or Tek/5 screws spaced 6-inch o.c.	ELASTIZELL (FL4994): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (Minimum 2-inch thick, minimum 1.0 pcf EPS holey board required)	None	None	N/A	Sure-Weld FleeceBACK	Flexible FAST (FULL)	-82.5
LWC-27	Min. 22 ga., Type BV, Grade 33 steel; max. 5-ft spans; 5/8” puddle welds or Tek/5 screws spaced 6-inch o.c.	ELASTIZELL (FL4994): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (Minimum 1-inch thick, minimum 1.0 pcf EPS holey board required)	None	None	N/A	Sure-Weld FleeceBACK	Flexible FAST (FULL)	-97.5

TABLE 4C: LIGHTWEIGHT CONCRETE OVER STEEL DECK - NEW CONSTRUCTION OR RE-ROOF (TEAR OFF)
SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER

System No.	Deck (Note 1)	Lightweight Concrete (Note 15)				Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Surface Treatment	Supplemental Attachment		Type	Attach	
				Fasteners	Density			
LWC-28	Min. 22 ga., Type BV, Grade 33 steel; max. 5-ft spans; 5/8” puddle welds or Tek/5 screws spaced 6-inch o.c.	ELASTIZELL (FL4994): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (Minimum 2-inch thick, minimum 1.0 pcf EPS holey board required)	None	None	N/A	Sure-Weld FleeceBACK	Flexible FAST (FULL)	-112.5

Note A.) If the type of LWC to be used on the project is unknown, as in a re-roof (tear-off) condition, compressive strength and fastener withdrawal resistance testing shall be conducted. Compressive strength testing shall be in accordance with ASTM C495 (for new pour) or ASTM C109 (for existing) and shall yield a minimum 200 psi result. Field withdrawal resistance testing in accordance with TAS 105 or ANSI/SPRI FX-1 and shall yield an average withdrawal performance not less than 55 lbf with a Trufast FM-90 Base Sheet Fastener. If question exists as to the adhesion to the LWC surface, field testing in accordance with ASTM E907 or FM Loss Prevention Data Sheet 1-29 is recommended. All testing shall be performed by an accredited testing agency acceptable to the Authority Having Jurisdiction.

Note B.) Linear interpolation between supplemental attachment at 1 per 9 ft² for -67.5 psf and 1 per 1 ft² for -120.0 psf is permissible. Such interpolation shall be performed by a qualified design professional to the satisfaction of the Authority Having Jurisdiction.

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

System No.	Deck (Note 1)	Lightweight Concrete (Note 15)	Roof Cover (Notes 16 & 17)		MDP (psf)
			Membrane	Application	
SURE-WELD OR SURE-WELD HS MEMBRANE APPLICATIONS:					
LWC-29	Min. 2,500 psi structural concrete	CELCORE (FL2037): Min. 300 psi, Min. 2-inch thick, Celcore Cellular Concrete (EPS board optional)	Sure-Weld	Aqua Base 120	-82.5
LWC-30	Min. 2,500 psi structural concrete	CELCORE (FL2037): Min. 300 psi, Min. 2-inch thick, Celcore Cellular Concrete (EPS board optional)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-135.0
LWC-31	Min. 2,500 psi structural concrete	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional). Note A.	Sure-Weld	Aqua Base 120	-217.5
LWC-32	Min. 2,500 psi structural concrete	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional). Note A.	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-480.0
LWC-33	Min. 2,500 psi structural concrete	CONCRECEL (FL5584 & FL10500): Min. 350 psi, min. 2-inch thick, Concrecel Lightweight Insulating Concrete (EPS board optional)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-452.5
LWC-34	Min. 2,500 psi structural concrete	ELASTIZELL (FL4994): Min. 250 psi, Min. 2-inch thick, Elastizell Range II LWIC	Sure-Weld	Aqua Base 120	-67.5
LWC-35	Min. 2,500 psi structural concrete	ELASTIZELL (FL4994): Min. 250 psi, Min. 2-inch thick, Elastizell Range II LWIC (EPS board optional)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-240.0
LWC-36	Min. 2,500 psi structural concrete	ELASTIZELL (FL4994): Min. 300 psi, Min. 2-inch thick, Elastizell Range II LWIC (no EPS board)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-495.0
LWC-37	Min. 2,500 psi structural concrete	Min. 350 psi, pre-existent cellular lightweight insulating concrete; Note: To qualify the LWIC under this assembly, an OMG CR-R Assembled Base Sheet Fastener (1.7 in.) shall achieve an average withdrawal of 101 lbf or greater when tested per ANSI/SPRI FX-1 or TAS105.	Sure-Weld	Sure-Weld BA	-452.5
LWC-38	Min. 2,500 psi structural concrete	Min. 320 psi, pre-existent cellular lightweight insulating concrete; Note: To qualify the LWIC under this assembly, an OMG CR-R Assembled Base Sheet Fastener (1.7 in.) shall achieve an average withdrawal of 148 lbf or greater when tested per ANSI/SPRI FX-1 or TAS105.	Sure-Weld	Sure-Weld BA	-492.5
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (SPATTER BOND):					
LWC-39	Min. 2,500 psi structural concrete	Min. 350 psi, pre-existent cellular lightweight insulating concrete; Note: To qualify the LWIC under this assembly, an OMG CR-R Assembled Base Sheet Fastener (1.7 in.) shall achieve an average withdrawal of 101 lbf or greater when tested per ANSI/SPRI FX-1 or TAS105.	Sure-Weld FleeceBACK	Flexible FAST Dual Tank Adhesive (SPATTER at 3.5-4.0 lbs/sq)	-345.0
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (FULL BOND):					
LWC-40	Min. 2,500 psi structural concrete	CELCORE (FL2037): Min. 270 psi, Min. 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture (EPS board optional) Surfacing: Celcore SBS (Sanded Bonding Surface) at 1 gal/square.	Sure-Weld FleeceBACK	FAST 100-LV (FULL) or Flexible FAST (FULL)	-225.0

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

System No.	Deck (Note 1)	Lightweight Concrete (Note 15)	Roof Cover (Notes 16 & 17)		MDP (psf)
			Membrane	Application	
LWC-41	Min. 2,500 psi structural concrete	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional). Note A.	Sure-Weld FleeceBACK	FAST 100LV, Flexible FAST (FULL)	-232.5
LWC-42	Min. 2,500 psi structural concrete	CONCRECEL (FL5584 & FL10500): Min. 350 psi, min. 2-inch thick, Concrecel Lightweight Insulating Concrete (EPS board optional)	Sure-Weld FleeceBACK	FAST 100 LV or FAST D-C (FULL)	-282.5
LWC-43	Min. 2,500 psi structural concrete	ELASTIZELL (FL4994): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (EPS board optional)	Sure-Weld FleeceBACK	Flexible FAST (FULL)	-240.0
LWC-44	Min. 2,500 psi structural concrete	ELASTIZELL (FL4994): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (no EPS board)	Sure-Weld FleeceBACK	Flexible FAST (FULL)	-250.0
LWC-45	Min. 2,500 psi structural concrete	Min. 320 psi, pre-existent cellular lightweight insulating concrete; Note: To qualify the LWIC under this assembly, an OMG CR-R Assembled Base Sheet Fastener (1.7 in.) shall achieve an average withdrawal of 148 lbf or greater when tested per ANSI/SPRI FX-1 or TAS105.	Sure-Weld FleeceBACK	Flexible FAST (FULL)	-250.0
LWC-46	Min. 2,500 psi structural concrete	Min. 350 psi, pre-existent cellular lightweight insulating concrete; Note: To qualify the LWIC under this assembly, an OMG CR-R Assembled Base Sheet Fastener (1.7 in.) shall achieve an average withdrawal of 101 lbf or greater when tested per ANSI/SPRI FX-1 or TAS105.	Sure-Weld FleeceBACK	FAST 100 LV or FAST D-C (FULL)	-282.5
SURE-WELD SAT-TPO MEMBRANE APPLICATIONS:					
LWC-47	Min. 3,000 psi structural concrete	ELASTIZELL (FL4994): Min. 250 psi, Min. 2-inch thick, Elastizell Range II LWIC	Sure-Weld SAT-TPO	Self-adhered	-282.5

Note A.) If the type of LWC to be used on the project is unknown, as in a re-roof (tear-off) condition, compressive strength and fastener withdrawal resistance testing shall be conducted. Compressive strength testing shall be in accordance with ASTM C495 (for new pour) or ASTM C109 (for existing) and shall yield a minimum 200 psi result. Field withdrawal resistance testing in accordance with TAS 105 or ANSI/SPRI FX-1 and shall yield an average withdrawal performance not less than 55 lbf with a Trufast FM-90 Base Sheet Fastener. If question exists as to the adhesion to the LWC surface, field testing in accordance with ASTM E907 or FM Loss Prevention Data Sheet 1-29 is recommended. All testing shall be performed by an accredited testing agency acceptable to the Authority Having Jurisdiction.

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

System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attachment	Type	Attachment	Type	Application	
SURE-WELD OR SURE-WELD HS MEMBRANE APPLICATIONS:								
CWF-1	Min. 2-inch Tectum Plank	Min. 7/16-inch APA rated OSB	FAST 100 LV, Flexible FAST (FULL)	None	N/A	Sure-Weld	Aqua Base 120	-52.5
CWF-2	Min. 2-inch Tectum Plank	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	FAST 100 LV, Flexible FAST (FULL)	(Optional) Additional layers of base insulation	FAST 100 LV, Flexible FAST (FULL)	Sure-Weld	CAV-GRIP III LVOC-AP or Sure-Weld BA	-75.0
CWF-3	Min. 2-inch Tectum Plank	(Optional) Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	FAST 100 LV, Flexible FAST (FULL)	Min. 7/16-inch APA rated OSB	FAST 100 LV, Flexible FAST (FULL)	Sure-Weld	CAV-GRIP III LVOC-AP or Sure-Weld BA	-75.0
CWF-4	Min. 2-inch Tectum Plank	(Optional) Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board, Min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90 or Min. 2-inch StormBase, H-Shield NB	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC-BA or Sure-Weld BA	-82.5
CWF-5	Min. 2-inch Tectum Plank	Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG and/or min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	(Optional) Additional layer(s) base insulation, min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC-BA or Sure-Weld BA	-82.5
CWF-6	Min. 2-inch Tectum Plank	(Optional) Min. 1.0-inch Polyiso HP-N or InsulBase	FAST 100 LV, Flexible FAST (FULL)	Min. 0.625-inch DensDeck Prime	FAST 100 LV, Flexible FAST (FULL)	Sure-Weld	CAV-GRIP III LVOC-AP or Sure-Weld BA	-90.0
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (PARTIAL BOND):								
CWF-7	Min. 2-inch Tectum Plank	(Optional) Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board, Min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90 or Min. 2-inch StormBase, H-Shield NB	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON, 12-inch o.c.)	-45.0
CWF-8	Min. 2-inch Tectum Plank	Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG and/or min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	(Optional) Additional layer(s) base insulation, min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON, 12-inch o.c.)	-45.0

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

System No.	Deck (Note 1)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attachment	Type	Attachment	Type	Application	
CWF-9	Min. 2-inch Tectum Plank	(Optional) Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	Min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON, 6-inch o.c.)	-82.5
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (SPATTER BOND):								
CWF-10	Min. 2-inch Tectum Plank	(Optional) Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board, Min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90 or Min. 2-inch StormBase, H-Shield NB	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	Sure-Weld FleeceBACK	Flexible FAST D-T (SPATTER)	-82.5
CWF-11	Min. 2-inch Tectum Plank	Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG and/or min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	(Optional) Additional layer(s) base insulation, min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	Sure-Weld FleeceBACK	Flexible FAST D-T (SPATTER)	-82.5
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (FULL BOND):								
CWF-12	Min. 2-inch Tectum Plank	(Optional) Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	Min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board, Min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90 or Min. 2-inch StormBase, H-Shield NB	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-T, Flexible FAST, Flexible FAST D-T (FULL) or HydroBond W-B	-82.5
CWF-13	Min. 2-inch Tectum Plank	Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG and/or min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	(Optional) Additional layer(s) base insulation, min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-T, Flexible FAST, Flexible FAST D-T (FULL) or HydroBond W-B	-82.5
CWF-14	Min. 2-inch Tectum Plank	Min. 1.0-inch Polyiso HP-N or InsulBase	FAST 100 LV, Flexible FAST (FULL)	(Optional) Min. 0.5-inch HP Recovery Board	FAST 100 LV, Flexible FAST (FULL)	Sure-Weld FleeceBACK	FAST D-T (FULL)	-90.0
CWF-15	Min. 2-inch Tectum Plank	Min. 1-inch Insulfoam SP	FAST 100 LV, Flexible FAST (FULL)	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV or Flexible FAST (FULL)	-90.0

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

System No.	Deck (Note 1)	Anchor Sheet			Base Insulation		Top Insulation		Roof Cover / Adhesive (Notes 16 & 17)	MDP (psf)
		Type	Fasteners	Attach	Type	Attach	Type	Attach		
SURE-WELD OR SURE-WELD HS MEMBRANE APPLICATIONS:										
CWF-16	Min. 2-inch Tectum Plank	SureMB G2 Base	Trufast Twin-Loc Nails, min. 1.4-inch embedment	9-inch o.c. in the 4-inch side laps and 18-inch o.c. in two staggered rows in the center of the sheet	Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG and/or min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBONS, ~10.5-inch o.c., atop anchor sheet fastener rows)	(Optional) Additional layer(s) base insulation, min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	Sure-Weld / CAV-GRIP III LVOC-AP, LVOC-BA or Sure-Weld BA	-30.0
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (SPATTER BOND):										
CWF-17	Min. 2-inch Tectum Plank	SureMB G2 Base	Trufast Twin-Loc Nails, min. 1.4-inch embedment	9-inch o.c. in the 4-inch side laps and 18-inch o.c. in two staggered rows in the center of the sheet	Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG and/or min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBONS, ~10.5-inch o.c., atop anchor sheet fastener rows)	(Optional) Additional layer(s) base insulation, min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	Sure-Weld FleeceBACK / Flexible FAST D-T (SPATTER)	-30.0
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (FULL BOND):										
CWF-18	Min. 2-inch Tectum Plank	SureMB G2 Base	Trufast Twin-Loc Nails, min. 1.4-inch embedment	9-inch o.c. in the 4-inch side laps and 18-inch o.c. in two staggered rows in the center of the sheet	Min. 1.5-inch InsulBase, H-Shield, SecurShield or H-Shield CG and/or min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBONS, ~10.5-inch o.c., atop anchor sheet fastener rows)	(Optional) Additional layer(s) base insulation, min. 0.25-inch Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON)	Sure-Weld FleeceBACK / FAST 100 LV, FAST D-T, Flexible FAST, Flexible FAST D-T (FULL) or HydroBond W-B	-30.0

TABLE 6A: EXISTING GYPSUM DECKS – REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Notes 1 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attachment	Type	Attachment	Type	Application	
SURE-WELD OR SURE-WELD HS MEMBRANE APPLICATIONS:								
G-1.	Existing poured gypsum or gypsum plank	(Optional) Min. 1-inch InsulBase, H-Shield, SecurShield or H-Shield CG	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	Min. 2-inch StormBase, H-Shield NB	FAST 100 LV, FAST 5-GJA, FAST D-C, FAST D-T, Flexible FAST (RIBBON)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-157.5
G-2.	Existing poured gypsum or gypsum plank	Min. 2-inch StormBase, H-Shield NB	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP or Sure-Weld BA	-187.5
G-3.	Existing poured gypsum or gypsum plank	Min. 1-inch InsulBase, H-Shield, SecurShield or H-Shield CG and/or min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	(Optional) Additional layer(s) base insulation, min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90 or nominal 0.5-inch ECOSTORM VSH	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-237.5
G-4.	Existing poured gypsum or gypsum plank	Nominal 0.5-inch ECOSTORM VSH	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-352.5
G-5.	Existing poured gypsum or gypsum plank	Min. 0.5-inch SecurShield HD, SecurSheild HD Plus, H-Shield HD or H-Shield HD90	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-450.0
G-6.	Existing poured gypsum or gypsum plank	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-495.0
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (PARTIAL BOND):								
G-7.	Existing poured gypsum or gypsum plank	Min. 1-inch InsulBase, H-Shield, SecurShield or H-Shield CG and/or min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	(Optional) Additional layer(s) base insulation, min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON, 12-inch o.c.)	-45.0

TABLE 6A: EXISTING GYPSUM DECKS – REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Notes 1 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attachment	Type	Attachment	Type	Application	
G-8.	Existing poured gypsum or gypsum plank	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON, 12-inch o.c.)	-45.0
G-9.	Existing poured gypsum or gypsum plank	(Optional) Min. 1-inch InsulBase, H-Shield, SecurShield or H-Shield CG	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	Min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD 90	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, FAST D-T, Flexible FAST or Flexible FAST D-T (RIBBON, 6-inch o.c.)	-90.0
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (SPATTER BOND):								
G-10.	Existing poured gypsum or gypsum plank	Min. 1-inch InsulBase, H-Shield, SecurShield or H-Shield CG and/or min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	(Optional) Additional layer(s) base insulation, min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90 or nominal 0.5-inch ECOSTORM VSH	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	Sure-Weld FleeceBACK	Flexible FAST D-T (SPATTER)	-237.5
G-11.	Existing poured gypsum or gypsum plank	Nominal 0.5-inch ECOSTORM VSH	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	None	N/A	Sure-Weld FleeceBACK	Flexible FAST D-T (SPATTER)	-352.5
G-12.	Existing poured gypsum or gypsum plank	Min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	None	N/A	Sure-Weld FleeceBACK	Flexible FAST D-T (SPATTER)	-450.0
G-13.	Existing poured gypsum or gypsum plank	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	None	N/A	Sure-Weld FleeceBACK	Flexible FAST D-T (SPATTER)	-495.0
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (FULL BOND):								
G-14.	Existing poured gypsum or gypsum plank	(Optional) Min. 1-inch InsulBase, H-Shield, SecurShield or H-Shield CG	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	Min. 2-inch StormBase, H-Shield NB	FAST 100 LV, FAST 5-GJA, FAST D-C, FAST D-T, Flexible FAST (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-157.5
G-15.	Existing poured gypsum or gypsum plank	Min. 2-inch StormBase, H-Shield NB	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-187.5

TABLE 6A: EXISTING GYPSUM DECKS – REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

System No.	Deck (Notes 1 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attachment	Type	Attachment	Type	Application	
G-16.	Existing poured gypsum or gypsum plank	Min. 1-inch InsulBase, H-Shield, SecurShield or H-Shield CG and/or min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	(Optional) Additional layer(s) base insulation, min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board or min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90 or nominal 0.5-inch ECOSTORM VSH	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	Sure-Weld FleeceBACK	FAST 100LV, FAST D-T, Flexible FAST, Flexible FAST D-T (FULL) or HydroBond W-B	-237.5
G-17.	Existing poured gypsum or gypsum plank	Min. 1-inch Insulfoam SP	FAST 100 LV (FULL), Flexible FAST (FULL)	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-295.0
G-18.	Existing poured gypsum or gypsum plank	(Optional) Min. 1-inch Insulfoam I, II, VIII, IX, XIV or XV	FAST 100 LV (FULL)	Min. 1-inch Insulfoam SP	FAST 100 LV (FULL)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-295.0
G-19.	Existing poured gypsum or gypsum plank	Nominal 0.5-inch ECOSTORM VSH	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	None	N/A	Sure-Weld FleeceBACK	FAST 100LV, FAST D-T, Flexible FAST, Flexible FAST D-T (FULL) or HydroBond W-B	-352.5
G-20.	Existing poured gypsum or gypsum plank	Min. 0.5-inch SecurShield HD, SecurShield HD Plus, H-Shield HD or H-Shield HD90	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	None	N/A	Sure-Weld FleeceBACK	FAST 100LV, FAST D-T, Flexible FAST, Flexible FAST D-T (FULL) or HydroBond W-B	-450.0
G-21.	Existing poured gypsum or gypsum plank	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV (RIBBON), FAST D-T (RIBBON), Flexible FAST (RIBBON), Flexible FAST D-T (RIBBON)	None	N/A	Sure-Weld FleeceBACK	FAST 100LV, FAST D-T, Flexible FAST, Flexible FAST D-T (FULL) or HydroBond W-B	-495.0

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

System No.	Deck (Note 1)	Primer	Roof Cover (Notes 16 & 17)		MDP (psf)
			Type	Attach	
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (SPATTER BOND):					
G-22.	Existing poured gypsum or gypsum plank	None	Sure-Weld FleeceBACK	Flexible FAST Dual Tank Adhesive (SPATTER at 3.5-4.0 lbs/sq)	-717.5
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (FULL BOND):					
G-23.	Existing poured gypsum or gypsum plank	None	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-295.0
G-24.	Existing poured gypsum or gypsum plank	None	Sure-Weld FleeceBACK	FAST D-C (FULL)	-330.0

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

System No.	Substrate (Notes 1 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attach	Type	Attach	Type	Application	
SURE-WELD OR SURE-WELD HS MEMBRANE APPLICATIONS:								
R-1	Existing asphaltic BUR or mineral surface cap sheet	Min. 1.0-inch InsulBase, H-Shield, SecurShield, H-Shield CG	FAST 100 LV, Flexible FAST (RIBBON, 6-inch o.c.)	(Optional) Additional layers of base insulation	FAST 100 LV, Flexible FAST (RIBBON, 6-inch o.c.)	Sure-Weld	Aqua Base 120, CAV-GRIP III LVOC-AP or Sure-Weld BA	-45.0
R-2	Existing asphaltic BUR or mineral surface cap sheet	Min. 1-inch InsulBase, H-Shield, SecurShield or H-Shield CG	FAST 100 LV (FULL)	Min. 2-inch StormBase, H-Shield NB	FAST 100 LV, FAST 5-GJA, FAST D-C, FAST D-T, Flexible FAST (RIBBON)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-157.5
R-3	Existing asphaltic BUR or mineral surface cap sheet	Min. 1.0-inch InsulBase, H-Shield, SecurShield, H-Shield CG	FAST 100 LV (FULL)	(Optional) Additional layers of base insulation	FAST 100 LV (FULL)	Sure-Weld	Aqua Base 120, CAV-GRIP III LVOC-AP or Sure-Weld BA	-157.5
R-4	Existing asphaltic BUR or mineral surface cap sheet	Min. 2-inch StormBase, H-Shield NB	FAST 100 LV (FULL)	None	N/A	Sure-Weld	CAV-GRIP III LVOC-AP or Sure-Weld BA	-187.5
R-5	Existing asphaltic BUR or mineral surface cap sheet	One or more layers Min. 1.0-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV (FULL)	Min. 0.5-inch HP Recovery Board	FAST 100 LV (FULL)	Sure-Weld	Sure-Weld BA	-232.5
R-6	Existing asphaltic BUR or mineral surface cap sheet	Min. 1.5-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	OB500	(Optional) Additional layers of base insulation	OB500	Sure-Weld	Aqua Base 120 or Sure-Weld BA	-120.0
R-7	Existing asphaltic BUR or mineral surface cap sheet	Min. 1.5-inch InsulBase, H-Shield, SecurShield, H-Shield CG	OB500	(Optional) Additional layers of base insulation	OB500	Sure-Weld	CAV-GRIP III LVOC-AP	-120.0
R-8	Existing asphaltic BUR or mineral surface cap sheet	(Optional) Min. 1.5-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	OB500	Min. 0.25-inch DensDeck or DensDeck Prime	OB500	Sure-Weld	Aqua Base 120 or Sure-Weld BA	-120.0
R-9	Existing asphaltic BUR or mineral surface cap sheet	(Optional) Min. 1.5-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	OB500	Min. 0.25-inch DensDeck Prime	OB500	Sure-Weld	CAV-GRIP III LVOC-AP	-120.0
R-10	Existing asphaltic BUR or mineral surface cap sheet	(Optional) Min. 1.5-inch ACFoam II, InsulBase, H-Shield, SecurShield, H-Shield CG, ENRGY 3	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	Sure-Weld	Aqua Base 120, CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-120.0
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (PARTIAL BOND):								
R-11	Existing asphaltic BUR or mineral surface cap sheet	Min. 1-inch InsulBase, HP-N or HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3, AC Foam II or min. 1.5-inch Kingspan GreenGuard Extruded Polystyrene	FAST 100 LV, Flexible FAST (FULL)	Min. 0.25-inch DensDeck Prime	FAST 100 LV, Flexible FAST (FULL)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST, FAST D-T (RIBBON, 12-inch o.c.)	-37.5

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

System No.	Substrate (Notes 1 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attach	Type	Attach	Type	Application	
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (FULL BOND):								
R-12	Existing asphaltic BUR or mineral surface cap sheet	(Optional) Min. 1.5-inch InsulBase, HP-N, HP-W, H-Shield, SecurShield, H-Shield CG, ENRGY 3, AC Foam II, Kingspan GreenGuard or Foamular 150 or Min. 1.0-inch Dow Styrofoam	FAST 100 LV, Flexible FAST (RIBBON, 6-inch o.c.)	Min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite or min. 0.5-inch HP Recovery Board	FAST 100 LV, Flexible FAST (RIBBON, 6-inch o.c.)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST, FAST D-T (FULL)	-45.0
R-13	Existing asphaltic BUR or mineral surface cap sheet	(Optional) Min. 0.5-inch InsulBase, H-Shield	FAST 100 LV (FULL)	Min. 0.5-inch base insulation	FAST 100 LV (FULL)	Sure-Weld FleeceBACK	FAST D-T (FULL)	-135.0
R-14	Existing asphaltic BUR or mineral surface cap sheet	(Optional) Min. 1-inch InsulBase, H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, FAST D-C, Flexible FAST (FULL)	Min. 0.5-inch SecurShield HD or H-Shield HD or Min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST 100 LV, FAST D-C, Flexible FAST (FULL)	Sure-Weld FleeceBACK	FAST D-T (FULL)	-135.0
R-15	Existing asphaltic BUR or mineral surface cap sheet	(Optional) Min. 1-inch InsulBase, H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, Flexible FAST (FULL)	Nominal 0.5-inch ECOSTORM VSH	FAST 100 LV, Flexible FAST (FULL)	Sure-Weld FleeceBACK	FAST D-T (FULL)	-135.0
R-16	Existing asphaltic BUR or mineral surface cap sheet	(Optional) Min. 1-inch InsulBase, H-Shield, SecurShield, H-Shield CG or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV or FAST D-C (FULL)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV or FAST D-C (FULL)	Sure-Weld FleeceBACK	FAST D-T (FULL)	-135.0
R-17	Existing asphaltic BUR or mineral surface cap sheet	Min. 1-inch InsulBase, H-Shield, SecurShield or H-Shield CG	FAST 100 LV (FULL)	Min. 2-inch StormBase, H-Shield NB	FAST 100 LV, FAST 5-GJA, FAST D-C, FAST D-T, Flexible FAST (RIBBON)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-157.5
R-18	Existing asphaltic BUR or mineral surface cap sheet	Min. 2-inch StormBase, H-Shield NB	FAST 100 LV (FULL)	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-187.5
R-19	Existing gravel-surfaced asphaltic BUR	Min. 1-inch Insulfoam SP	Flexible FAST (FULL)	None	N/A	Sure-Weld FleeceBACK	Flexible FAST (FULL)	-222.5
R-20	Existing asphaltic BUR or mineral surface cap sheet	Min. 1.5-inch InsulBase, HP-N, HP-W, AC Foam II, H-Shield, SecurShield, H-Shield CG, ENRGY-3	FAST 100 LV, Flexible FAST (FULL)	(Optional) Additional layers of base insulation	FAST 100 LV, Flexible FAST (FULL)	Sure-Weld FleeceBACK	Aqua Base 120, HydroBond W-B	-232.5
R-21	Existing asphaltic BUR or mineral surface cap sheet	Min. 1-inch Insulfoam SP	FAST 100 LV (FULL)	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV (FULL)	-232.5
R-22	Existing asphaltic BUR or mineral surface cap sheet	Min. 1.5-inch SecurShield HD Composite, H-Shield HD Composite	FAST 100 LV (FULL)	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV (FULL)	-232.5

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

System No.	Substrate (Notes 1 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attach	Type	Attach	Type	Application	
R-23	Existing asphaltic BUR or mineral surface cap sheet	Min. 7/16-inch APA rated OSB or min. 0.25-inch DensDeck or DensDeck Prime	FAST 100 LV (FULL)	(Optional) One or more layers min. 7/16-inch APA rated OSB or min. 0.25-inch DensDeck or DensDeck Prime	FAST 100 LV (FULL)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-232.5
R-24	Existing asphaltic BUR or mineral surface cap sheet	InsulBase, HP-N or HP-W, ENRGY 3, H-Shield, SecurShield, H-Shield CG, or AC Foam II	FAST 100 LV (FULL)	Min. 7/16-inch APA rated OSB or min. 0.25-inch DensDeck or DensDeck Prime	FAST 100 LV (FULL)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-232.5
R-25	Existing asphaltic BUR or mineral surface cap sheet	Min. 1.0-inch InsulBase, H-Shield, SecurShield, H-Shield CG	FAST 100 LV (FULL)	(Optional) Additional layers of base insulation	FAST 100 LV (FULL)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-300.0
R-26	Existing gravel-surfaced asphaltic BUR	Min. 1-inch Insulfoam SP	FAST 100 LV (FULL)	None	N/A	Sure-Weld FleeceBACK	FAST 100 LV (FULL)	-395.0
SURE-WELD FLEECEBACK® RL™ APPLICATIONS:								
R-27	Existing asphaltic BUR or mineral surface cap sheet	(Optional) Min. 0.5-inch InsulBase or H-Shield or min. 1-inch Insulfoam I, II, IX, VIII, XIV or XV	FAST 100 LV, Flexible FAST, FAST D-T (FULL)	Min. 2.0-inch InsulBase RL	FAST 100 LV, Flexible FAST, FAST D-T (FULL)	Sure-Weld FleeceBACK® RL™		-142.5

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

System No.	Substrate (Notes 1 & 12)	Base Insulation Layer		Top Insulation Layer		Roof Cover / Adhesive (Notes 16 & 17)		MDP (psf)
		Type	Attach	Type	Attach	Base	Application	
SURE-WELD AFX MEMBRANE APPLICATIONS:								
R-28	Existing asphaltic BUR over steel deck	Min. 1-inch InsulBase, H-Shield	FAST 100 LV, FAST D-C, FAST 5-GJA (RIBBON, 6-inch o.c.)	Min. 0.25-inch DensDeck Prime	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON, 6-inch o.c.)	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-60.0
R-29	Existing asphaltic BUR over concrete deck	Min. 1-inch InsulBase, H-Shield	FAST 100 LV, FAST D-C, FAST 5-GJA (RIBBON, 6-inch o.c.)	Min. 0.25-inch DensDeck Prime	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON, 6-inch o.c.)	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-75.0
R-30	Existing asphaltic BUR	Min. 1-inch InsulBase, H-Shield	FAST 100 LV, FAST D-C, FAST 5-GJA (RIBBON, 6-inch o.c.)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV, FAST D-C, Flexible FAST, FAST 5-GJA (RIBBON, 6-inch o.c.)	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-75.0
R-31	Existing asphaltic BUR over steel deck	Min. 1-inch InsulBase, H-Shield	FAST 100 LV (FULL)	Min. 0.25-inch DensDeck Prime	FAST 100 LV (FULL)	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-60.0
R-32	Existing asphaltic BUR over concrete deck	Min. 1-inch InsulBase, H-Shield	FAST 100 LV (FULL)	Min. 0.25-inch DensDeck Prime	FAST 100 LV (FULL)	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-75.0
R-33	Existing asphaltic BUR	Min. 1-inch InsulBase, H-Shield	FAST 100 LV (FULL)	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	FAST 100 LV (FULL)	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-75.0
R-34	Existing asphaltic BUR over concrete deck	Min. 1.5-inch InsulBase or H-Shield or min. 2-inch Insulfoam I or VIII	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-105.0
R-35	Existing asphaltic BUR over concrete deck	Min. 1.5-inch InsulBase or H-Shield or min. 2-inch Insulfoam I or VIII	OB500	Min. 0.25-inch DensDeck Prime	OB500	SureMB 90TG or 120TG / torch-applied	Sure-Weld AFX / C-CAA or hot asphalt	-120.0

TABLE 7C: STEEL - RECOVER
SYSTEM TYPE C-2: PLATE-BONDED ROOF COVER

All areas where the existing metal panels do not lay flush on the underlying purlin shall have a 0.25-inch diameter pilot hole pre-drilled into the panel prior to driving the Purlin Fastener into the purlin

System No.	Substrate (Note 1)	Insulation Layer (Note 5)	Attachment		Roof Cover / Adhesive	MDP (psf)
			Fasteners (Note 11)	Spacing		
RHINO BOND SYSTEMS:						
R-36	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 120-inch o.c.	One or more layers, any combination, preliminarily fastened	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and RHINO BOND Insulation Plate (TPO) are fastened through to purlins	12-inch o.c. along purlins	Sure-Weld (minimum 60-mil) or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-30.0
R-37	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 120-inch o.c.	One or more layers, any combination, preliminarily fastened	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and RHINO BOND Insulation Plate (TPO) are fastened through to purlins	6-inch o.c. along purlins	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-37.5
R-38	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 60-inch o.c.	One or more layers, any combination, preliminarily fastened	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and RHINO BOND Insulation Plate (TPO) are fastened through to purlins	12-inch o.c. along purlins	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-37.5
R-39	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 60-inch o.c.	One or more layers, any combination, preliminarily fastened	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and RHINO BOND Insulation Plate (TPO) are fastened through to purlins	12-inch o.c. along purlins	Sure-Weld (minimum 60-mil) or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-45.0
R-40	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 120-inch o.c.	One or more layers, any combination, preliminarily fastened	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and RHINO BOND Insulation Plate (TPO) are fastened through to purlins	6-inch o.c. along purlins	Sure-Weld (minimum 60-mil) or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-52.5
R-41	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 60-inch o.c.	One or more layers, any combination, preliminarily fastened	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and RHINO BOND Insulation Plate (TPO) are fastened through to purlins	6-inch o.c. along purlins	Sure-Weld or Sure-Weld EXTRA bonded to RHINO BOND Insulation Plate (TPO) with RHINO BOND tool per manufacturer’s instructions.	-67.5
ISOWELD INDUCTION WELDING SYSTEM:						
R-42	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi steel purlins spaced max. 60-inch o.c.	One or more layers, any combination, preliminarily fastened	SFS Purlin Fastener with SFS <i>isoweld</i> ® TPO Plates (FI-P-6.8-TPO) are fastened through to purlins	12-inch o.c. along purlins	Sure-Weld or Sure-Weld EXTRA bonded to SFS <i>isoweld</i> ® TPO Plates with SFS <i>isoweld</i> ® 3000 stand-up tool.	-37.5
R-43	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi steel purlins spaced max. 60-inch o.c.	One or more layers, any combination, preliminarily fastened	SFS Purlin Fastener with SFS <i>isoweld</i> ® TPO Plates (FI-P-6.8-TPO) are fastened through to purlins	6-inch o.c. along purlins	Sure-Weld or Sure-Weld EXTRA bonded to SFS <i>isoweld</i> ® TPO Plates with SFS <i>isoweld</i> ® 3000 stand-up tool.	-90.0

TABLE 7D: STEEL – RECOVER
SYSTEM TYPE D-1: INSULATED, MECHANICALLY ATTACHED ROOF COVER
All areas where the existing metal panels do not lay flush on the underlying purlin shall have a 0.25-inch diameter pilot hole pre-drilled into the panel prior to driving the Purlin Fastener into the purlin

System No.	Deck (Note 1)	Insulation		Roof Cover			MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners (Note 11)	Attachment	
R-44	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 138.5-inch o.c.	One or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and Piranha Plate	12-inch o.c. within 5.5-inch wide laps spaced max. 138.5-inch o.c. to engage steel purlin. Laps sealed with 1.5-inch heat weld.	-30.0
R-45	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 115-inch o.c.	One or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and Piranha Plate	12-inch o.c. within 5.5-inch wide laps spaced max. 115-inch o.c. to engage steel purlin. Laps sealed with 1.5-inch heat weld.	-45.0
R-46	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 54.5-inch o.c.	One or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and Piranha Plate	12-inch o.c. within 5.5-inch wide laps spaced max. 54.5-inch o.c. to engage steel purlin. Laps sealed with 1.5-inch heat weld.	-60.0
R-47	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 138.5-inch o.c.	One or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and Piranha Plate	6-inch o.c. within 5.5-inch wide laps spaced max. 138.5-inch o.c. to engage steel purlin. Laps sealed with 1.5-inch heat weld.	-60.0
R-48	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 90.5-inch o.c.	One or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and Piranha Plate	6-inch o.c. within 5.5-inch wide laps spaced max. 90.5-inch o.c. to engage steel purlin. Laps sealed with 1.5-inch heat weld.	-67.5
R-49	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 54.5-inch o.c.	One or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and Piranha Plate	9-inch o.c. within 5.5-inch wide laps spaced max. 54.5-inch o.c. to engage steel purlin. Laps sealed with 1.5-inch heat weld.	-75.0
R-50	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 54.5-inch o.c.	One or more layers, any combination	Prelim. attach	Sure-Weld or Sure-Weld EXTRA	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and Piranha Plate	6-inch o.c. within 5.5-inch wide laps spaced max. 54.5-inch o.c. to engage steel purlin. Laps sealed with 1.5-inch heat weld.	-90.0

TABLE 7E: STEEL – RECOVER
SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED ROOF COVER (RUSS STRIPS)
All areas where the existing metal panels do not lay flush on the underlying purlin shall have a 0.25-inch diameter pilot hole pre-drilled into the panel prior to driving the Purlin Fastener into the purlin

System No.	Deck (Note 1)	Insulation		Roof Cover			MDP (psf)
		Type	Attach (Note 5)	Membrane	Fasteners (Note 11)	Attachment	
R-51	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 138-inch o.c.	One or more layers, any combination	Prelim. attached	Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and Piranha Plates	Sure-Weld TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 138-inch o.c. The plates are centered over each strip and fastened 6-inch o.c. to engage the purlin. Roof cover adhered to each strip by first priming with TPO Primer at the strip location, then rolling into place with a hand roller.	-30.0
R-52	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 114-inch o.c.	One or more layers, any combination	Prelim. attached	Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and Piranha Plates	Sure-Weld TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 114-inch o.c. The plates are centered over each strip and fastened 6-inch o.c. to engage the purlin. Roof cover adhered to each strip by first priming with TPO Primer at the strip location, then rolling into place with a hand roller.	-45.0
R-53	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 90-inch o.c.	One or more layers, any combination	Prelim. attached	Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and Piranha Plates	Sure-Weld TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 90-inch o.c. The plates are centered over each strip and fastened 6-inch o.c. to engage the purlin. Roof cover adhered to each strip by first priming with TPO Primer at the strip location, then rolling into place with a hand roller.	-52.5
R-54	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 120-inch o.c.	One or more layers, any combination	Prelim. attached	Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and Piranha Plates	Sure-Weld TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 120-inch o.c. The plates are centered over each strip and fastened 6-inch o.c. to engage the purlin. Roof cover adhered to each strip by first priming with HP-250 Primer at the strip location, then rolling into place with a hand roller.	-60.0
R-55	Existing standing seam or lap seam metal roof covers having min. 16 ga. (0.0598-inch) to max. 3/16-inch thick steel purlins spaced max. 60-inch o.c.	One or more layers, any combination	Prelim. attached	Sure-Weld, Sure-Weld HS or Sure-Weld EXTRA	Carlisle HP Purlin Fasteners or RetroDriller Fasteners and Piranha Plates	Sure-Weld TPO 10-inch Pressure-Sensitive RUSS strips are applied over the insulation spaced 60-inch o.c. The plates are centered over each strip and fastened 12-inch o.c. to engage the purlin. Roof cover adhered to each strip by first priming with HP-250 Primer at the strip location, then rolling into place with a hand roller.	-60.0

TABLE 7F: RECOVER APPLICATIONS
SYSTEM TYPE E-1: NON-INSULATED, MECHANICALLY ATTACHED ROOF COVER

System No.	Deck (Note 1)	Roof Cover						MDP (psf)
		Membrane	Fasteners (Note 11)	Fastener Spacing	Lap Width	Lap Spacing	Seam Weld	
R-56	Existing steel deck	Sure-Weld AFX or Sure-Weld FleeceBACK	Carlisle HP-X Fasteners and Piranha Plates installed through to engage existing deck	12-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-30.0
R-57	Existing steel deck	Sure-Weld AFX 155 or Sure-Weld FleeceBACK 135	Carlisle HP-Xtra Fasteners and Piranha Xtra Plates installed through to engage existing deck	12-inch o.c.	5-inch	139-inch o.c.	1.5-inch outside	-30.0
R-58	Existing steel deck, min. Grade 80	Sure-Weld AFX or Sure-Weld FleeceBACK	Carlisle HP-X Fasteners and Piranha Plates installed through to engage existing deck	12-inch o.c.	5.5-inch	139-inch o.c.	1.5-inch outside	-30.0
R-59	Existing steel deck	Sure-Weld AFX 155 or Sure-Weld FleeceBACK 135	Carlisle HP-Xtra Fasteners and Piranha Xtra Plates installed through to engage existing deck	6-inch o.c.	5-inch	139-inch o.c.	1.5-inch outside	-37.5
R-60	Existing steel deck, min. Grade 80	Sure-Weld AFX or Sure-Weld FleeceBACK	Carlisle HP-X Fasteners and Piranha Plates installed through to engage existing deck	6-inch o.c.	5.5-inch	139-inch o.c.	1.5-inch outside	-37.5
R-61	Existing steel deck	Sure-Weld AFX 155 or Sure-Weld FleeceBACK 135	Carlisle HP-Xtra Fasteners and Piranha Xtra Plates installed through to engage existing deck	12-inch o.c.	5-inch	115-inch o.c.	1.5-inch outside	-37.5
R-62	Existing steel deck, min. Grade 80	Sure-Weld AFX or Sure-Weld FleeceBACK	Carlisle HP-Xtra Fasteners and Piranha Xtra Plates installed through to engage existing deck	12-inch o.c.	5.5-inch	115-inch o.c.	1.5-inch outside	-37.5
R-63	Existing steel deck	Sure-Weld AFX or Sure-Weld FleeceBACK	Carlisle HP-X Fasteners and Piranha Plates installed through to engage existing deck	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-52.5
R-64	Existing steel deck	Sure-Weld AFX or Sure-Weld FleeceBACK	Carlisle HP-Xtra Fasteners and Piranha Xtra Plates installed through to engage existing deck	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-60.0
R-65	Existing steel deck, min. Grade 80	Sure-Weld AFX or Sure-Weld FleeceBACK	Carlisle HP-X Fasteners and Piranha Plates installed through to engage existing deck	6-inch o.c.	5.5-inch	138.5-inch o.c.	1.5-inch outside	-60.0
R-66	Existing steel deck, min. Grade 80	Sure-Weld AFX or Sure-Weld FleeceBACK	Carlisle HP-X Fasteners and Piranha Plates installed through to engage existing deck	6-inch o.c.	5.5-inch	91-inch o.c.	1.5-inch outside	-60.0
R-67	Existing steel deck, min. Grade 80	Sure-Weld AFX 155 or Sure-Weld FleeceBACK 135	Carlisle HP-Xtra Fasteners and Piranha Xtra Plates installed through to engage existing deck	12-inch o.c.	5-inch	91-inch o.c.	1.5-inch outside	-60.0
R-68	Existing structural concrete	Sure-Weld AFX or Sure-Weld FleeceBACK	Carlisle HD 14-10 or CD-10 Fasteners and Piranha Plates installed through to engage existing deck	12-inch o.c.	5.5-inch	139-inch o.c.	1.5-inch outside	-30.0
R-69	Existing structural concrete	Sure-Weld AFX or Sure-Weld FleeceBACK	Carlisle HD 14-10 or CD-10 Fasteners and Piranha Plates installed through to engage existing deck Plates	6-inch o.c.	5.5-inch	139-inch o.c.	1.5-inch outside	-37.5

TABLE 7F: RECOVER APPLICATIONS
SYSTEM TYPE E-1: NON-INSULATED, MECHANICALLY ATTACHED ROOF COVER

System No.	Deck (Note 1)	Roof Cover						MDP (psf)
		Membrane	Fasteners (Note 11)	Fastener Spacing	Lap Width	Lap Spacing	Seam Weld	
R-70	Existing structural concrete	Sure-Weld AFX or Sure-Weld FleeceBACK	Carlisle HD 14-10 or CD-10 Fasteners and Piranha Plates installed through to engage existing deck	12-inch o.c.	5.5-inch	115-inch o.c.	1.5-inch outside	-37.5
R-71	Existing structural concrete	Sure-Weld AFX or Sure-Weld FleeceBACK	Carlisle HD 14-10 or CD-10 Fasteners and Piranha Plates installed through to engage existing deck	6-inch o.c.	5.5-inch	91-inch o.c.	1.5-inch outside	-60.0
R-72	Existing structural concrete	Sure-Weld AFX 155 or Sure-Weld FleeceBACK 135	Carlisle HD 14-10 or CD-10 Fasteners and Piranha Plates installed through to engage existing deck	12-inch o.c.	5-inch	91-inch o.c.	1.5-inch outside	-60.0

TABLE 7G: RECOVER APPLICATIONS
SYSTEM TYPE F-1: NON-INSULATED, BONDED ROOF COVER

System No.	Substrate (Notes 1 & 12)	Roof Cover (Notes 16 & 17)		MDP (psf)
		Type	Attach	
SURE-WELD APPLICATIONS:				
R-73	Existing fully adhered TPO single ply over structural concrete (Note 12)	Sure-Weld	CAV-GRIP III Low-VOC Adhesive/Primer	-585.0
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (PARTIAL BOND):				
R-74	Existing asphaltic BUR or granule-surface cap sheet (Note 12)	Sure-Weld FleeceBACK	FAST 100 LV (RIBBON, 6-inch o.c.)	-75.0
R-75	Existing fully adhered EPDM single ply over steel deck (Note 12)	Sure-Weld FleeceBACK	FAST 100 LV (RIBBON, 6-inch o.c.)	-75.0
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (SPATTER BOND):				
R-76	Existing fully adhered TPO single ply over structural concrete (Note 12)	Sure-Weld FleeceBACK	Flexible FAST Dual Tank Adhesive (SPATTER at 3.5-4.0 lbs/sq)	-270.0
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (FULL BOND):				
R-77	Existing asphaltic BUR or granule-surface cap sheet (Note 12)	Sure-Weld FleeceBACK	FAST 100 LV (FULL)	-75.0
R-78	Existing fully adhered EPDM single ply over steel deck (Note 12)	Sure-Weld FleeceBACK	FAST 100 LV (FULL)	-75.0
R-79	Existing roof system with granule-surfaced modified bitumen cap sheet installed over existing cellular lightweight concrete (Note 12)	Sure-Weld FleeceBACK	FAST 100 LV or FAST D-C (FULL)	-187.5
R-80	Existing asphaltic BUR or granule-surface cap sheet (Note 12)	Sure-Weld FleeceBACK	FAST 100 LV, Flexible FAST (FULL)	-232.5
R-81	Existing fully adhered EPDM single ply over structural concrete deck (Note 12)	Sure-Weld FleeceBACK	FAST 100 LV (FULL)	-315.0
R-82	Existing roof system with granule-surfaced modified bitumen cap sheet installed over existing Tectum roof deck (Note 12)	Sure-Weld FleeceBACK	FAST 100 LV or FAST D-C (FULL)	-325.0
R-83	Existing asphaltic BUR or granule-surface cap sheet (Note 12)	Sure-Weld AFX	Hot Asphalt	-367.5
R-84	Existing roof system with granule-surfaced modified bitumen cap sheet installed over existing gypsum roof deck (Note 12)	Sure-Weld FleeceBACK	FAST 100 LV or FAST D-C (FULL)	-400.0
R-85	Existing roof system with granule-surfaced modified bitumen cap sheet (Note 12) installed over existing structural concrete deck	Sure-Weld FleeceBACK	FAST 100 LV or FAST D-C (FULL)	-410.0

TABLE 7H: RECOVER APPLICATIONS
SYSTEM TYPE F-2: NEW LIGHTWEIGHT CONCRETE OVER EXISTING ROOF, BONDED ROOF COVER

System No.	Substrate (Notes 1 & 12)			Roof Cover (Notes 16 & 17)		MDP (psf)
	Deck	Existing Roof	Lightweight Concrete	Type	Attach	
SURE-WELD OR SURE-WELD HS MEMBRANE APPLICATIONS:						
R-86	Structural concrete	Existing gravel surface BUR	CELCORE (FL2037): Min. 300 psi, Min. 2-inch thick, Celcore Cellular Concrete or Celcore MF Cellular Concrete (EPS board optional)	Sure-Weld	Aqua Base 120 or Sure-Weld BA	-75.0
R-87	Structural concrete	Existing mineral surface cap sheet, smooth surface BUR or smooth surface modified cap sheet	CELCORE (FL2037): Min. 300 psi, Min. 2-inch thick, Celcore Cellular Concrete (EPS board optional)	Sure-Weld	Aqua Base 120	-82.5
R-88	Structural concrete	Existing mineral surface cap sheet, smooth surface BUR or smooth surface modified cap sheet	CELCORE (FL2037): Min. 300 psi, Min. 2-inch thick, Celcore Cellular Concrete (EPS board optional)	Sure-Weld	Sure-Weld BA	-135.0
R-89	Structural concrete	Existing mineral surface cap sheet	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 300 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional).	Sure-Weld	Aqua Base 120 or Sure-Weld BA	-135.0
R-90	Structural concrete	Existing smooth surface BUR or smooth surface modified cap sheet	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 300 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional).	Sure-Weld	Aqua Base 120	-217.5
R-91	Structural concrete	Existing smooth surface BUR or smooth surface modified cap sheet	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 300 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional).	Sure-Weld	Sure-Weld BA	-262.5
R-92	Structural concrete	Existing asphalt BUR	CONCRECEL (FL5584 & FL10500): Min. 350 psi, min. 2-inch thick, Concrecel Lightweight Insulating Concrete (EPS board optional)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-375.0
R-93	Structural concrete	Existing asphalt BUR or smooth- or granule-surface SBS modified bitumen	ELASTIZELL (FL4994): Min. 250 psi, Min. 2-inch thick, Elastizell Range II LWIC (EPS board optional)	Sure-Weld	Aqua Base 120	-67.5
R-94	Structural concrete	Existing asphalt BUR or granule-surface SBS modified bitumen	ELASTIZELL (FL4994): Min. 250 psi, Min. 2-inch thick, Elastizell Range II LWIC (EPS board optional)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-302.5
R-95	Structural concrete	Existing asphalt BUR or smooth-surface SBS modified bitumen	ELASTIZELL (FL4994): Min. 250 psi, Min. 2-inch thick, Elastizell Range II LWIC (EPS board optional)	Sure-Weld	CAV-GRIP III LVOC-AP, LVOC BA or Sure-Weld BA	-342.0
SURE-WELD FLEECEBACK MEMBRANE APPLICATIONS (FULL BOND):						
R-96	Structural concrete	Existing gravel surface BUR	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional).	Sure-Weld FleeceBACK	FAST 100LV, Flexible FAST (FULL)	-75.0

TABLE 7H: RECOVER APPLICATIONS
SYSTEM TYPE F-2: NEW LIGHTWEIGHT CONCRETE OVER EXISTING ROOF, BONDED ROOF COVER

System No.	Substrate (Notes 1 & 12)			Roof Cover (Notes 16 & 17)		MDP (psf)
	Deck	Existing Roof	Lightweight Concrete	Type	Attach	
R-97	Structural concrete	Existing mineral surface cap sheet	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional).	Sure-Weld FleeceBACK	FAST 100LV, Flexible FAST (FULL)	-135.0
R-98	Structural concrete	Existing smooth surface BUR or smooth surface modified cap sheet	CELCORE (FL2037): Min. 36 pcf wet cast density, min. 200 psi, min. 2-inch thick Celcore MF Cellular Concrete (EPS board optional).	Sure-Weld FleeceBACK	FAST 100LV, Flexible FAST (FULL)	-232.5
R-99	Structural concrete	Existing asphalt BUR	CONCRECEL (FL5584 & FL10500): Min. 350 psi, min. 2-inch thick, Concrecel Lightweight Insulating Concrete (EPS board optional)	Sure-Weld FleeceBACK	FAST 100 LV or FAST D-C (FULL)	-282.5
R-100	Structural concrete	Existing asphalt BUR or smooth- or granule-surface SBS modified bitumen	ELASTIZELL (FL4994): Min. 320 psi, min. 2-inch thick, Elastizell Range II LWIC (EPS optional board)	Sure-Weld FleeceBACK	Flexible FAST (FULL)	-250.0

APPENDIX 2: GUIDANCE / LIMITATIONS FOR USE OF HILTI FASTENERS IN TYPE B STEEL DECK SECUREMENT BENEATH CARLISLE SYNTEC ROOF SYSTEMS¹
TABLE 1: HILTI PART / SUPPORT THICKNESS LIMITATIONS

HILTI PART	STEEL SUPPORTING MEMBER THICKNESS (INCH)
X-ENP-19 L15, X-ENP-19 L15MX or X-ENP-19 L15MXR	$t \geq 0.25$
X-EDN19 THQ12 or X-EDN19 THQ12M	$0.25 \leq t \leq 0.375$
X-EDNK22 THQ12 or X-EDNK22 THQ12M	$t = 0.25$
X-HSN 24	$0.125 \leq t \leq 0.375$
S-MD 12-24 x 1-5/8 M HWH5	$0.125 < t \leq 0.25$

TABLE 2: HILTI PART / TYPE B STEEL DECK ATTACHMENT-SPAN LIMITATIONS

HILTI PART	MAX. SPACING (INCH O.C.)	MAX. ALLOWABLE DESIGN PRESSURE (PSF)	MAX. SPAN (INCHES)					
			Min. 22 ga. steel		Min. 20 ga. steel		Min. 18 ga. steel	
			Min. 33 ksi	Min. 80 ksi	Min. 33 ksi	Min. 80 ksi	Min. 33 ksi	Min. 80 ksi
X-ENP-19 L15 X-ENP-19 L15MX X-ENP-19 L15MXR X-EDN19 THQ12 X-EDN19 THQ12M X-EDNK22 THQ12 X-EDNK22 THQ12M X-HSN 24 or S-MD 12-24 x 1-5/8 M HWH5	12	-45.0	72	72	72	72	72	72
	6	-82.5*	72	72	72	72	72	72
	6	-90.0*	68	72	72	72	72	72
	6	-97.5*	63	72	72	72	72	72
	6	-105.0*	59	72	72	72	72	72
	6	-112.5*	55	72	67	72	72	72
	6	-120.0*	51	72	63	72	72	72
	6	-127.5*	48	72	59	72	72	72
	6	-135.0*	45	72	56	72	72	72
	6	-142.5*	43	72	53	72	72	72
	6	-150.0*	41	72	50	72	69	72
	6	-157.5*	39	71	48	72	65	72
	6	-165.0*	37	68	46	72	62	72
	6	-165.0*	35	65	44	72	60	71
	6	-172.5*	34	62	42	72	57	68
	6	-180.0*	33	60	40	72	55	65
	6	-187.5*	31	57	39	71	53	62
	6	-195.0*	30	55	37	68	51	60
	6	-202.5*	29	53	36	66	49	58
	6	-210.0*	28	51	36	63	47	56
	6	-217.5*	27	50	33	61	46	54
	6	-225.0*	26	48	32	59	44	52

*Limited to fully or partially adhered roof coverings.

¹ Information is provided as guidance for use at the discretion of the Designer or Record and Authority Having Jurisdiction. Neither NEMO|etc. nor Robert Nieminen, P.E. purport to evaluate Hilti fasteners for compliance with the Florida Building Code.

NEMO ETC, LLC

Certificate of Authorization #32455

Prepared by: Robert Nieminen, PE-59166

6TH EDITION (2017) FBC NON-HVHZ EVALUATION
Carlisle Sure-Weld TPO Single Ply Roof Systems; (717) 245-7264

Evaluation Report C33680.09.10-R21 for **FL14083-R21**

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