

Nemo etc.

Certificate of Authorization #32455 353 Christian Street, Unit #13 Oxford, CT 06478 (203) 262-9245

ENGINEER EVALUATE TEST CONSULT

P.E. EVALUATION REPORT (PEER)

Owens Corning

One Owens Corning Parkway Toledo, OH 43659 (740) 404-7829 PEER-OCPLYG-006.B.R3

FL19979-R3 (HVHZ)

Date of Issuance: 02/18/2016

Revision 3: 12/27/2023

SCOPE:

This Evaluation Report is issued under F.A.C. <u>Rule 61G20-3</u> 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 **8**th **Edition (2023) Florida Building Code** <u>sections noted herein</u>.

DESCRIPTION: DeckSeal Modified Bitumen Roof Systems (HVHZ)

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

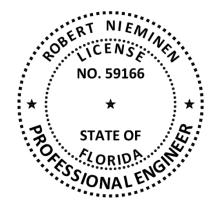
CONTINUED COMPLIANCE: This PEER is valid until such time as the named product(s) changes, the referenced Quality Assurance or production facility location(s) changes, or Code provisions that relate to the product(s) change. Acceptance of our PEERs by the named client constitutes agreement to notify NEMO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

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

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

This PEER consists of pages 1 through 4, plus a 7-page Appendix.

Prepared by:



CERTIFICATION OF INDEPENDENCE:

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

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ROOFING SYSTEMS EVALUATION:

1. SCOPE:

Product Category: Roofing

Sub-Category: Modified Bitumen Roof Systems

Product Approval Method: Method 1, Option D – Codified Material, Evaluation by Engineer

Compliance Statement: DeckSeal Modified Bitumen Roof Systems, as produced by Owens Corning, have demonstrated compliance with the following sections of the 8th Edition (2023) Florida Building Code, High Velocity Hurricane Zone (HVHZ) through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations of Use set forth herein.

2.	STANDARDS:		
	SECTION	PROPERTY	STANDARD
	TAS 110	Resistance to Foot Traffic	TAS 114, Section 8.9
	TAS 110	Wind resistance	TAS 114, Appendix C, D or J
	TAS 110	Susceptibility to Hail Damage	TAS 114, Appendix F
	TAS 110	Susceptibility to Leakage	TAS 114, Appendix G
	TAS 110	Material standard	ASTM D6163
	TAS 110	Material standard	ASTM D6164

3.	REFERENCES:									
	ENTITY	EXAM	REFERENCE	DATE						
	NEMO	Evaluation Report	PEER-PLYG-001.B.R17	10/04/2023						
	UL LLC (QUA9625)	Quality Control	MLA 6000228099	06/26/2015						
	UL LLC (QUA9625)	Quality Control	Service Confirmation	08/11/2020						
	UL LLC (QUA9625)	Quality Control	Service Quote	12/27/2023						
	UL LLC (QUA9625)	Quality Control	Florida BCIS	Current						

4. PRODUCT DESCRIPTION:

This PEER covers **DeckSeal Modified Bitumen Roof Systems** installed in accordance with **Owens Corning** published installation instructions and the <u>Limitations of Use</u> herein.

TABLE 1: EVALUATED MEMBRANES										
Type	PRODUCT	Мат		PLANT(S)						
Түре	PRODUCT	Reference	Түре	GRADE	PLANT(S)					
CDC Cus a state Courte as	DeckSeal MA NailBase	ASTM D6163	I	S	FL					
SBS, Smooth-Surface Membranes	DeckSeal SA Base/Ply	ASTM D6163	I	S	FL, PA, TX					
iviembranes	DeckSeal SA Base/Ply FR	ASTM D6163	I	S	FL, PA, TX					
SBS, Granule Surface	DeckSeal SA SBS Cap	ASTM D6164	I	G	FL, TX					
Membranes	DeckSeal SA SBS Cap FR	ASTM D6164	I	G	FL, TX					



5. LIMITATIONS:

- 5.1 This is a building code evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this PEER, or previous versions thereof, is/was used for permitting or design guidance. PEERs are not to be construed as representing any attributes not specifically listed, nor are PEERs to be construed as an endorsement of the subject, or a recommendation for its use. There is no warranty by NEMO ETC, LLC or Robert Nieminen, P.E., express or implied, as to any finding or other matter in this PEER, or as to any product covered by the PEER.
- 5.2 This PEER is exclusively for use in High Velocity Hurricane Zone jurisdictions, as defined in FBC Chapter 2 (Broward and Miami-Dade Counties).
- 5.3 The evaluation herein pertains to above-deck roof components; deck-attachment details pertain to 'as-tested' conditions under <u>Testing Application Standard</u> TAS 114, Appendix J. Roof decks shall be in accordance with FBC HVHZ requirements to the satisfaction of the Authority Having Jurisdiction.
- 5.4 This PEER does not include evaluation of fire classification. Refer to **FBC HVHZ 1516** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.
- 5.5 This PEER does not include evaluation of roof edge termination. Refer to <u>Roofing Application Standard</u> RAS 111 for requirements and limitations regarding edge securement for low-slope roofs.
- 5.6 Refer to **FBC HVHZ 1521** for requirements and limitations regarding recover installations.
- 5.6.1 For mechanically attached components over existing roof decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing shall be in accordance with <u>Testing Application Standard</u> **TAS 105**.
- 5.6.2 For bonded insulation or membrane over existing substrates in a re-roof (tear off) or recover installation, the existing deck or existing roof surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with Testing Testing Application Standard TAS 124 shall be conducted on mock-ups of the proposed new roof assembly.
- 5.6.3 For bonded insulation or membrane over existing substrates in a recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the Authority Having Jurisdiction, as documented through field uplift testing in accordance with <u>Testing Application Standard</u> TAS 124.
- 5.7 Refer to Appendix 1 for system attachment requirements for wind load resistance.
- 5.7.1 "MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads, and reflects the ultimate passing pressure divided by 2 (the 2 to 1 margin of safety per <u>Testing Application Standard TAS 114</u> has already been applied). Refer to FBC HVHZ 1620 and <u>Roofing Application Standard RAS 128</u> for determination of design wind loads.
- 5.7.2 For mechanically attached components, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 PRIME design pressure determined in accordance with FBC HVHZ 1620 or Roofing Application Standard RAS 128. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Analysis shall be in accordance with Roofing Application Standard RAS 117 or RAS 137. *This extrapolation is not permitted for systems marked with an asterisk*.
- 5.7.3 For tables and/or assemblies marked with an asterisk*, the maximum design pressure (MDP) limitation shall be applicable to all roof pressure zones. Rational analysis is not permitted.
- 5.8 All components in the roof assembly shall have quality assurance audit in accordance with **F.A.C.** Rule 61G20-3. Refer to the Product Approval of the component manufacturer for components listed in Appendix 1 that are produced by a Product Manufacturer other than the report holder on Page 1 of this PEER.



6. INSTALLATION:

DeckSeal Modified Bitumen Roof Systems shall be installed in accordance with **Owens Corning** published installation instructions, subject to the <u>Limitations of Use</u> noted herein.

7. BUILDING PERMIT REQUIREMENTS:

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

8. MANUFACTURING PLANTS:

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

9. QUALITY ASSURANCE ENTITY:

<u>UL (QUA9625)</u>: (360) 817-5512; <u>bsai.inspections@ul.com</u>

- THE 7-PAGES THAT FOLLOW FORM PART OF THIS PEER -



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APPENDIX 1: A	ATTACHMENT REQUIREN	MENTS FOR WIND UPLIFT RESISTANCE			
TABLE	DECK	APPLICATION	TYPE	DESCRIPTION	PAGE
<u>1A</u>	Wood	New or Reroof (Tear-Off)	B-3	Mechanically Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	3
<u>1B</u>	Wood	New, Reroof (Tear-Off) or Recover	B-3	Mechanically Attached Anchor Sheet, Bonded Insulation, Bonded Roof Cover	4
<u>1C</u>	Wood	New, Reroof (Tear-Off) or Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover	5
<u>1D</u>	Wood	New, Reroof (Tear-Off) or Recover	D-2	Insulated, Mechanically Attached Base Sheet, Bonded Roof Cover	6
<u>1E</u>	Wood	New or Reroof (Tear-Off)	E-2	Non-Insulated, Mechanically Attached Base Sheet, Bonded Roof Cover	6
<u>1F</u>	Wood	New, Reroof (Tear-Off) or Recover	E-2	Non-Insulated, Mechanically Attached Base Sheet, Bonded Roof Cover	7

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 HVHZ requirements to the satisfaction of the Authority Having Jurisdiction. Deck-attachment details pertain to 'as-tested' conditions under Testing Application Standard TAS 114, Appendix J. The table below provides reference to various as-tested deck sub-assemblies and associated maximum allowable design pressures.

		AS-TESTED DECK ATTACHMENT DETAILS (TA	S 114, Appendix J)	
Түре	TESTED SPAN (FT O.C.)	TESTED FASTENER	TESTED FASTENER SPACING (INCH O.C.)	As-Tested Allowable Pressure (PSF)
	2	8d ring shank nails	6	-75.0
	2	#10 wood screws	6	-90.0
15/32-inch APA rated CDX	2	#10 wood screws	4	-120.0
plywood	2	#8 wood screws	6	-127.5
	2 ft o.c., and blocked 4 ft o.c.	#10 wood screws	4	-142.5
19/32-inch APA rated CDX	2	8d ring shank nails	6	-60.0
plywood	2	#10 wood screws	6	-127.5

2 Unless otherwise noted, fasteners and stress plates shall be as follows. Fastener shall be of sufficient length for the following engagements:

	FASTENER/PLATE OPTIONS									
D ECK T YPE	Вү	MINIMUM ENGAGEMENT								
	Altenloh, Brinck and Co. U.S., Inc. NOA 22-1214.0		Trufast #14 HD with Trufast 3" Metal Insulation Plate							
Wood	0.46	NOA 22 0710 02	OMG #14 Heavy Duty with OMG 3 in. Round Metal Plate	Minimum ¾-inch plywood						
vvood	OMG, Inc.	NOA 23-0718.03	OMG #14 Roofgrip with OMG Accutrac Flat Bottom	penetration or minimum 1-inch wood plank embedment						
	SFS Group USA, Inc.	NOA 22-0913.02	Dekfast DF-#14-PH3 with Dekfast PLT-H-2-7/8 or Dekfast PLT-R-3	wood plank embedment						

- Unless otherwise noted, insulation may be any one layer or combination of FBC Approved (Local or Statewide) board(s) that meet FBC HVHZ 1516 and, for foam plastic, FBC Chapter 26, when installed with the roof cover.
- RESERVED
- Preliminary insulation attachment: Unless otherwise noted, use FBC HVHZ Approved roofing fasteners; minimum four fasteners per 4 x 8 ft board or minimum two fasteners per 4 x 4 ft board.

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- Unless otherwise noted, insulation adhesive application rates are as follows.
 - ✓ Ribbon or bead width is at the time of application; the ribbons/beads shall expand as noted in the manufacturer's published instructions.
 - ✓ When multiple layers(s) of insulation and/or coverboard are installed in ribbon-applied adhesive, board joints shall be staggered.
 - ✓ The maximum edge distance from the adhesive ribbon to the edge of the insulation board shall be not less than one-half the specified ribbons spacing.

	Insulation Adhesive References										
Вү	FBC HVHZ	Adhesive	REFERENCE	MINIMUM RATE							
Dupont de Nemours	FL720	INSTA STIK Quik Set Insulation Adhesive	INSTA STIK	Continuous 0.75 to 1-inch wide ribbons, 12-inch o.c.							
H.B. Fuller Company	NOA 21-1018.06	Millennium One Step Foamable Adhesive	M-OSFA	Continuous 0.25 to 0.5-inch wide ribbons, 12-inch o.c.							
ICP Construction	NOA 21-1115.05	Polyset Commercial Roof Adhesive	Polyset CRA	Continuous 2.5 to 3-inch wide ribbons, 12-inch o.c.							
OMG, Inc.	NOA 22-0519.04	OlyBond 500 Adhesive Fastener	OB500	Continuous 0.75-inch wide ribbons, 12-inch o.c. (PaceCart, SpotShot or Canister)							
Generic, ASTM D312, Type IV	N/A	hot asphalt		Full coverage at 25-30 lbs/square							

7 Unless otherwise noted, all insulations are flat-stock or taper board of the minimum thickness noted. Tapered polyisocyanurate at the following thickness limitations may be substituted with the following Maximum Design Pressure (MDP) limitations. In no case shall these values be used to 'increase' the MDP listings in the tables; rather if MDP listing below meets or exceeds that listed for a particular system in the tables, then the thinner board listed below may be used as a drop-in for the equivalent thicker material listed in the table.

	MDP LIMITATIONS FOR TAPERED POLYISOCYANURATE INSULATIONS										
ADHESIVE	Insulation	Min. Tapered Thickness (in)	MDP (PSF)								
ADHESIVE	LISTED PRODUCT	FBC HVHZ	IVIIN. TAPERED THICKNESS (IN)	IVIDP (PSF)							
M-OSFA	Any polyisocyanurate listed with adhesive herein	Various	0.5	-157.5							
Polyset CRA	Any polyisocyanurate listed with adhesive herein	Various	1.0	-117.5							
OB500	Rmax Multi-Max FA3	NOA 22-0815.03	0.5	-45.0							
OB500	Hunter H-Shield	NOA 19-0521.04	0.5	-315.0							
OB500	Johns Manville ENRGY 3	NOA 18-0501.05	0.5	-315.0							
OB500	Atlas ACFoam II	NOA 23-0207.02	0.5	-487.5							

- Bonded polyisocyanurate insulation boards shall be maximum 4 x 4 ft.
- For mechanically attached components, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 PRIME design pressure determined in accordance with FBC HVHZ 1620 or Roofing Application Standard RAS 128. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria in accordance with Roofing Application Standard RAS 117 or RAS 137. *This extrapolation is not permitted for systems marked with an asterisk*
- For tables and/or assemblies marked with an asterisk*, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with FBC Chapter 16. No rational analysis is permitted for these systems.
- 11 For mechanically attached components over existing decks, fasteners shall be tested in the existing deck for withdrawal resistance in accordance with Testing Application Standard TAS 105. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Should the fastener resistance be less than that required, a revised fastener spacing – prepared, signed and sealed by a qualified design professional in accordance with Roofing Application Standard RAS 117 or RAS 137 – may be submitted to the Building Official for review and acceptance. For systems using Trufast Versa-Fast, the number of Versa-Fast Fasteners installed through the Versa-Fast Plate may be increased from the minimum noted in order to yield minimum required withdrawal resistance.
- For bonded insulation or membrane over existing substrates in a re-roof (tear off) or recover installation, the existing deck or existing roof surface shall be examined for compatibility with the adhesive to be installed. If any surface conditions exist that bring system performance into question, field uplift testing shall be conducted on mock-ups of the proposed new roof assembly. For bonded insulation or membrane over existing substrates in a recover installation, the existing roof system shall be capable of resisting project design pressures on its own merit to the satisfaction of the Authority Having Jurisdiction, as documented through field uplift testing in accordance with Testing Application Standard TAS 124.

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- 13 Refer to FBC HVHZ 1521 for requirements and limitations regarding recover installations. For Recover Applications using System Type C-1 the base insulation layer is optional and for System Type C-2, D-1 or D-2, the insulation is optional. Alternatively, an FBC HVHZ Approved insulation board or coverboard may be used as a separation layer. Board products shall be preliminarily attached prior to roof cover installation (Note 5). The separator component shall be documented as meeting FBC HVHZ 1516 and, for foam plastic, FBC Chapter 26, when installed with the roof cover in Recover applications.
- 14 RESERVED
- 15 For bonded membrane applications, unless otherwise noted, refer to the following.

	Membrane / Adhesive Combinations									
REFERENCE	LAYER	Material	APPLICATION							
SBS-SA	Base Ply One or more plies DeckSeal SA Base/Ply or DeckSeal SA Base/Ply FR		Self-Adhering							
3B3-3A	Cap Ply	DeckSeal SA SBS Cap or DeckSeal SA SBS Cap FR	Sell-Adhering							

"MDP" = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads. FBC (HVHZ) 1620 and Roofing Application Standard RAS 128 for determination of design wind loads (Note 9 and Note 10).

	TABLE 1A: WOOD DECKS — NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER											
Contain	D. J.	Anchor Sheet				Base Insulation		Top Insulation		Roof Cover (Note 15)		
System No.	Deck (Note 1)	Туре	Fasten (Note 11)	Attach	Туре	Attach (Notes 6,7,8)	Туре	Attach (Notes 6,7,8)	Base Ply	Ply	Cap Ply	(psf)
W-1.	Min. 15/32-inch (existing) or min. 19/32-inch (new) APA rated CDX plywood	Polyglass "Elastobase" or "Elastobase P" with sanded-top-surface	Simplex MAXX Cap	9-inch o.c. at 2-inch lap and 18-inch o.c. in two, equally spaced, staggered center rows	(Optional) Min. 1.5- inch ACFoam II, ENRGY-3, H-Shield, H-Shield CG, Multi- Max FA3	Hot asphalt	Min. 0.25-inch Dens Deck, Dens Deck Prime, SECUROCK Gypsum-Fiber Roof Board	Hot asphalt	SBS-SA	(Optional) SBS-SA	SBS-SA	-45.0*
W-2.	Min. 15/32-inch (existing) or min. 19/32-inch (new) APA rated CDX plywood	Polyglass "Elastobase" or "Elastobase P" with sanded-top-surface	Simplex MAXX Cap	9-inch o.c. at 2-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows	(Optional) Min. 1.5- inch ACFoam II, ENRGY-3, H-Shield, H-Shield CG, Multi- Max FA3	Hot asphalt	Min. 0.25-inch Dens Deck, Dens Deck Prime, SECUROCK Gypsum-Fiber Roof Board	Hot asphalt	SBS-SA	(Optional) SBS-SA	SBS-SA	-52.5
W-3.	Min. 19/32-inch APA rated CDX plywood	Polyglass "Polyglass G2 Base", "Elastobase" or "Elastobase P" with sanded- top-surface or "Elastovent", CertainTeed "Glasbase Base Sheet", Firestone "MB Base", Johns Manville "Perma-Ply 28" or GAF "GAFGLAS #75 Base Sheet"	32 ga., 1- 5/8-inch diameter tin caps with 11 ga. annular ring shank nails	8-inch o.c. in 4-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	(Optional) Min. 1.5- inch ACFoam II, ACFoam III, ENRGY- 3, H-Shield, H- Shield CG, Multi- Max FA3	Hot asphalt	Min. 0.25-inch Dens Deck, Dens Deck Prime, SECUROCK Gypsum-Fiber Roof Board	Hot asphalt	SBS-SA	(Optional) SBS-SA	SBS-SA	-60.0

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	TABLE 1A: WOOD DECKS — NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER											
System	Deck	Д	Anchor Sheet		Base Insul	ation	Top Insu	lation	Ro	of Cover (Note	<u>15)</u>	MDD
No.	(Note 1)	Туре	Fasten (Note 11)	Attach	Туре	Attach (Notes 6,7,8)	Туре	Attach (Notes 6,7,8)	Base Ply	Ply	Cap Ply	MDP (psf)
W-4.	Min. 19/32-inch APA rated CDX plywood	Polyglass "Elastobase" or "Elastobase P" with sanded-top-surface	Simplex MAXX Cap Fasteners	12-inch o.c. in 4- inch lap and 12-inch o.c. in two (2), equally spaced, staggered center rows	(Optional) Min. 1.5- inch ACFoam II, ENRGY-3, H-Shield, H-Shield CG, Multi- Max FA3	Hot asphalt	Min. 0.25-inch Dens Deck, Dens Deck Prime, SECUROCK Gypsum-Fiber Roof Board	Hot asphalt	SBS-SA	(Optional) SBS-SA	SBS-SA	-60.0
W-5.	Min. 19/32-inch APA rated CDX plywood	Polyglass "Elastobase" or "Elastobase P" with sanded-top-surface	32 ga., 1- 5/8-inch diameter tin caps with 12 ga. annular ring shank nails	6-inch o.c. in 4-inch lap and 6-inch o.c. in four (4), equally spaced, staggered center rows	Min. 2-inch ACFoam II, III, H-Shield, H- Shield CG, Multi- Max FA3 or ENRGY- 3	INSTA-STIK, OB500, Polyset CRA or M-OSFA, atop fastener rows, 7-inch o.c.	(Optional) Additional layers of base insulation	INSTA-STIK, OB500, Polyset CRA or M-OSFA	SBS-SA	(Optional) SBS-SA	SBS-SA	-60.0*

	TABLE 1B: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE B-3: MECHANICALLY ATTACHED ANCHOR SHEET, BONDED INSULATION, BONDED ROOF COVER												
System	Deck		Anchor Sheet		Base Insulat	ion	Top Insul	ation	Ro	of Cover (Note	<u>15)</u>	MDP	
No.	(Note 1)	Туре	Fasten (Note 11)	Attach	Туре	Attach (Notes 6,7,8)	Туре	Attach (Notes 6,7,8)	Base Ply	Ply	Cap Ply	(psf)	
W-6.	Min. 19/32- inch APA rated CDX plywood	Polyglass "Elastobase" or "Elastobase P" with sanded-top-surface or "Elastovent"	OMG #12 Roofgrip with OMG Accutrac Flat Bottom	12-inch o.c. in 4- inch lap and 12-inch o.c. in two (2), equally spaced, staggered center rows	(Optional) Min. 1.5-inch ACFoam II, ENRGY-3, H- Shield, H-Shield CG, Multi-Max FA3	Hot asphalt	Min. 0.25-inch Dens Deck, Dens Deck Prime, SECUROCK Gypsum-Fiber Roof Board	Hot asphalt	SBS-SA	(Optional) SBS-SA	SBS-SA	-60.0	



				RUCTION, REROOF (TEAR-OFF) OR RECOVER CHED INSULATION, BONDED ROOF COVER					
System No.	Deck (Note 1)	Base Insulation Layer (Note 3, Note 13)	Top Insulation Layer				Roof Cover (Note 15)		
			Туре	Fasten (Note 11)	Attach	Base Ply	Ply	Cap Ply	(psf)
W-7.	Min. 15/32- inch (existing) or min. 19/32- inch (new) APA rated CDX plywood	One or more layers, any combination, min. 1-inch, loose laid	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board optionally primed with Polyglass "POLYBRITE 745" or "WB3000"	Note 2 (#14 only) or OMG #14 Roofgrip with OMG 3 in. Round Metal Plate or OMG 3 in. Ribbed Galvalume Plate (Flat)	1 per 2.0 ft ²	SBS-SA	None	SBS-SA	-45.0
W-8.	Min. 15/32- inch (existing) or min. 19/32- inch (new) APA rated CDX plywood	One or more layers, any combination, min. 1-inch, loose laid	Min. 0.25-inch Dens Deck Prime optionally primed with Polyglass "POLYBRITE 745" or "WB3000"	Note 2 (#14 only) or OMG #14 Roofgrip with OMG 3 in. Round Metal Plate	1 per 2.0 ft ²	SBS-SA	None	SBS-SA	-45.0
W-9.	Min. 19/32- inch APA rated plywood	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch ACFoam II, ACFoam III, EnergyGuard Polyiso Insulation, ENRGY 3, ENRGY 3 CGF, H-Shield, H-Shield CG, ISO 95+ GL, Multi-Max FA3 or Ultra-Max optionally primed with Polyglass "POLYBRITE 745" or "WB3000"	Trufast Versa Fasteners (min. ¾" penetration) & Plates; 2 screws per plate installed 180° into the holes of the plate	1 per 1.3 ft²	SBS-SA	(Optional) SBS-SA	SBS-SA	-67.5*
	Note:	*For re-roof or recover construction, field withdrawal resistance testing (Note 11) shall yield MCRF > 180 lbf.							
W-10.	Min. 19/32- inch APA rated plywood	(Optional) One or more layers, any combination, loose laid	Min. 1.5-inch ACFoam II, ACFoam III, EnergyGuard Polyiso Insulation, ENRGY 3, ENRGY 3 CGF, H-Shield, H-Shield CG, ISO 95+ GL, Multi-Max FA3 or Ultra-Max optionally primed with Polyglass "POLYBRITE 745" or "WB3000"	Dekfast DF-#12-PH3 with Dekfast PLT-R-3, OMG #12 Roogrip with OMG 3 in. Galvalume Plate (non-ribbed) or OMG Accutrac Plate or Trufast #12 DP with Trufast 3" Metal Insulation Plate	1 per 1.3 ft ²	SBS-SA	(Optional) SBS-SA	SBS-SA	-67.5*



TABLE 1D: WOOD DECKS – NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER									
System No.	Deck (Note 1)	Insulation Layer(s) (Note 3, Note 13)		Base Sheet			Roof Cover (Note 15)		MDP
		Туре	Attach	Туре	Fasten (Note 11)	Attach	Base Ply	Cap Ply	(psf)
W-11.	Min. 19/32-inch APA rated CDX plywood	One or more layers, any combination	Prelim. Attached	DeckSeal MA NailBase	Dekfast DF-#14-PH3 with Dekfast PLT-H-2-7/8 or Trufast #14 HD with Trufast 3" Metal Insulation Plate	12-inch o.c. in 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows	SBS-SA	SBS-SA	-52.5*
W-12.	Min. 19/32-inch APA rated CDX plywood	One or more layers, any combination	Prelim. Attached	DeckSeal MA NailBase	OMG #12 Roofgrip with OMG Accutrac Flat Bottom	12-inch o.c. in 4-inch lap and 12-inch o.c. in two, equally spaced, staggered center rows	SBS-SA	SBS-SA	-60.0*
W-13.	Min. 19/32-inch APA rated plywood	One or more layers, any combination	Loose-laid	DeckSeal MA NailBase	Trufast Versa Fasteners (min. ¾" penetration) & Plates; 2 screws per plate installed 180° into the holes of the plate, parallel to the width-direction of the sheet*	12-inch o.c. at min. 4-inch lap and 12-inch o.c. at two (2), equally spaced, staggered center rows	SBS-SA	SBS-SA	-67.5
	Note:	*For re-roof or recover construction, field withdrawal resistance testing (Note 11) shall yield MCRF > 199 lbf.							

	TABLE 1E: WOOD DECKS — NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE E-2: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET (NAILS), BONDED ROOF COVER								
System	2 100	Base Sheet				Roof Cover (Note 15)			
No.	Deck (Note 1)	Туре	Fasten (Note 11)	Attach	Base Ply	Cap Ply	(psf)		
No Base P	LY:								
W-14.	Min. 15/32-inch (existing) or min. 19/32-inch (new) APA rated plywood	DeckSeal MA NailBase	Simplex MAXX Cap Note: MAXX Caps are to be primed with Polyglass "PG100" or ASTM D41 primer	8-inch o.c. at min. 3-inch lap and 8-inch o.c. at three (3), equally spaced, staggered center rows	None	SBS-SA	-60.0		
W-15.	Min. 19/32-inch APA rated CDX plywood	DeckSeal MA NailBase	32 ga., 1-5/8-inch diameter tin caps with 11 ga. annular ring shank nails	8-inch o.c. in 4-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	None	SBS-SA	-60.0		
W-16.	Min. 19/32-inch APA rated CDX plywood	DeckSeal MA NailBase	32 ga., 1-5/8-inch diameter tin caps with 11 ga. annular ring shank nails.	4-inch o.c. in 4-inch lap and 4-inch o.c. in four (4), equally spaced, staggered center rows	None	SBS-SA	-97.5		
W-17.	Min. 19/32-inch APA rated CDX plywood	DeckSeal MA NailBase	32 ga., 1-5/8-inch diameter tin caps with 11 ga. annular ring shank nails. Note: Tin caps are to be primed with Polyglass "PG100" or ASTM D41 primer.	6-inch o.c. in 4-inch lap and 6-inch o.c. in four (4), equally spaced, staggered center rows	None	SBS-SA	-112.5		
SELF-ADHE	RING BASE PLY:								
W-18.	Min. 15/32-inch (existing) or min. 19/32-inch (new) APA rated plywood	DeckSeal MA NailBase	Simplex MAXX Cap Note: MAXX Caps are to be primed with Polyglass "PG100" or ASTM D41 primer	8-inch o.c. at min. 3-inch lap and 8-inch o.c. at three (3), equally spaced, staggered center rows	SBS-SA	SBS-SA	-60.0		
W-19.	Min. 19/32-inch APA rated CDX plywood	DeckSeal MA NailBase	32 ga., 1-5/8-inch diameter tin caps with 11 ga. annular ring shank nails	8-inch o.c. in 4-inch lap and 8-inch o.c. in three (3), equally spaced, staggered center rows	SBS-SA	SBS-SA	-60.0		
W-20.	Min. 19/32-inch APA rated CDX plywood	DeckSeal MA NailBase	32 ga., 1-5/8-inch diameter tin caps with 11 ga. annular ring shank nails.	4-inch o.c. in 4-inch lap and 4-inch o.c. in four (4), equally spaced, staggered center rows	SBS-SA	SBS-SA	-97.5		



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			TABLE 1F: WOOD DECKS – NEW CONSTRUCTION, REROOF (
		SYSTEN	I TYPE E-2: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET (SCREWS & PLATES), BONDED ROOF COVER						
System No.	Deck (Note 1)	Base Sheet					MDP			
		Туре	Fasten (Note 11)	Attach	Base Ply	Сар	(psf)			
No Base PL	Y:									
W-21.	Min. 19/32-inch APA rated CDX plywood	DeckSeal MA NailBase	Trufast Versa Fasteners (min. $\frac{3}{4}$ " penetration) & Plates; 2 screws per plate installed 180° into the holes of the plate, parallel to the width-direction of the sheet*	12-inch o.c. at min. 4-inch lap and 12-inch o.c. at two (2), equally spaced, staggered center rows	None	SBS-SA	-67.5			
	Note:	*For re-roof or	*For re-roof or recover construction, field withdrawal resistance testing (Note 11) shall yield MCRF > 199 lbf.							
SELF-ADHER	ING BASE PLY:									
W-22.	Min. 19/32-inch APA rated CDX plywood	DeckSeal MA NailBase	Dekfast DF-#14-PH3 with Dekfast PLT-H-2-7/8 or Trufast #14 HD with Trufast 3" Metal Insulation Plate	12-inch o.c. in 4-inch lap and 12-inch o.c. in two (2), equally spaced, staggered center rows	SBS-SA	SBS-SA	-52.5*			
W-23.	Min. 19/32-inch APA rated CDX plywood	DeckSeal MA NailBase	OMG #12 Roofgrip with OMG Accutrac Flat Bottom	12-inch o.c. in 4-inch lap and 12-inch o.c. in two (2), equally spaced, staggered center rows	SBS-SA	SBS-SA	-60.0*			
W-24.	Min. 19/32-inch APA rated plywood	DeckSeal MA NailBase	Trufast Versa Fasteners (min. $\frac{3}{4}$ " penetration) & Plates; 2 screws per plate installed 180° into the holes of the plate, parallel to the width-direction of the sheet*	12-inch o.c. at min. 4-inch lap and 12-inch o.c. at two (2), equally spaced, staggered center rows	SBS-SA	SBS-SA	-67.5			
	Note:	*For re-roof or								
W-25.	Min. 19/32-inch APA rated plywood	DeckSeal MA NailBase	Trufast Versa Fasteners (min. ¾" penetration) & Plates; 1 screws per plate in center hole* Note: Versa-Fast Plates shall be primed with Polyglass "PG100" or ASTM D41 primer.	9-inch o.c. at min. 4-inch lap and 9-inch o.c. at four (4), equally spaced center rows	SBS-SA	SBS-SA	-127.5			
	Note:	*For re-roof or recover construction, field withdrawal resistance testing (Note 11) shall yield MCRF > 141 lbf.								