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NEMO EVALUATION REPORT (NER)

AMRIZE BUILDING ENVELOPE LLC (DURO-LAST)
525 Morley Drive
Saginaw, MI 48601
(800) 248-0280

SUBJECT:	**Duro-Last Single Ply Roof Systems**
SCOPE:	This NEMO Evaluation Report (henceforth 'NER') is issued under F.A.C. Rule 61G20-3 and the applicable rules and regulations governing Product Approval of construction materials in the State of Florida and ISO/IEC 17065 via NEMO|cert. NEMO Evaluations has evaluated the product described herein for compliance with the Code sections noted herein.
CODE:	2023 Florida Building Code, 8th Edition
JURISDICTION:	Non-HVHZ and HVHZ
CATEGORY:	**FBC:** Roofing **NEMO:** Single Ply
SUB-CATEGORY:	**FBC:** Single Ply Roof Systems
CSI DIVISION:	07 00 00 Thermal and Moisture Protection 07 54 00 Thermoplastic Membrane Roofing 07 54 19 Polyvinyl-Chloride Roofing
METHOD:	Method 1, Option C – Codified Material, Evaluation by Evaluation Entity
COMPLIANCE STATEMENT:	**Duro-Last Single Ply Roof Systems**, as produced by **Amrize Building Envelope LLC (Duro-Last),** have demonstrated compliance with the Code sections noted herein through testing in accordance with the referenced Standards, rational analysis and an ongoing quality assurance program. Compliance is subject to the Installation Requirements and Limitations of Use set forth herein.
QUALITY ASSURANCE:	Evidence of current quality assurance shall be listing and labeling in accordance with the requirements of NEMO|cert.
CONTINUED COMPLIANCE:	This NER is valid until such time the named product(s) change, the referenced Quality Assurance changes, or the evaluated Code provisions change. NEMO Evaluations requires, at minimum, a complete review of this NER with each 3-year Code Cycle.
BUILDING PERMIT REQUIREMENTS:	As required by the Building Official or Authority Having Jurisdiction to evaluate the installation of this product.
ADVERTISEMENT:	"NEMO Evaluated" may be displayed in advertising literature. If any portion of the NER is displayed, it shall be displayed in its entirety.
CERTIFICATION OF INDEPENDENCE:	✓ NEMO CERT, LLC has not, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products it evaluates. ✓ NEMO CERT, LLC is not owned, operated or controlled by any company manufacturing or distributing products it evaluates. ✓ This is a building code evaluation. NEMO CERT, LLC is not, in any way, the Designer of Record for any project on which this NER, or previous versions thereof, is/was used for permitting or design guidance.

LINK TO TOP OF ATTACHMENT REQUIREMENTS

ISO/IEC 17065 PCA-145

ISO/IEC 17020 AA-779

1. CODES, PROPERTIES AND STANDARDS:

CODE	SECTION	PROPERTY	STANDARD
2023 Florida Building Code, 8th Edition	1504.3.1	Wind resistance	FM 4474
	1504.3.1	Wind resistance	UL 1897
	1504.6	Physical properties	ASTM G154
	1504.6	Physical properties	ASTM G155
	1504.7	Impact resistance	FM 4470
	1507.10.2, TAS 110	Material standard	ASTM D4434
	1523.6.2	Wind resistance	TAS 114
	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

2. PRODUCTS:

TABLE 1: EVALUATED MEMBRANES
(NEMO Certified. Consult Directory of Certified Products for production location(s))

TYPE	PRODUCT		MATERIAL STANDARD	
	NAME	THICKNESS	REFERENCE	TYPE
ROOF COVER	Duro-Last	40-mil	ASTM D4434	IV
		50, 60 or 80-mil	ASTM D4434	III
	Duro-Last X	50, 60 or 80-mil	ASTM D4434	III
	Duro-Last EV	50 or 60-mil	ASTM D4434	III
	Duro-Tuff	50, 60 or 80-mil	ASTM D4434	III
	Duro-Fleece	50, 60 or 80-mil	ASTM D4434	III
	Duro-Fleece Plus	50 or 60-mil	ASTM D4434	III

TABLE 1B: EVALUATED ACCESSORIES
(Contact contact@nemocert.com for production location(s) of non-Certified products)

TYPE	PRODUCT	MATERIAL STANDARD
ROOFING FASTENERS:	Duro-Last Concrete Screws	TAS 114
	Duro-Last #14 HD Fastener	TAS 114
	Duro-Last #15 Heavy Duty Screw Fastener	TAS 114
	Duro-Last 3-inch Metal Plate	TAS 114
	Duro-Last Poly-Plate	N/A
ADHESIVES:	Tab Sealer 4725	Proprietary

TABLE 2: COMPONENTS BY OTHERS (4.1.4)
(Refer to NOA if listed version was superseded to ensure use of latest version)

TYPE	DURO-LAST PRODUCT	ACCEPTABLE ALTERNATE	FBC	NOA
ROOFING FASTENERS:	N/A	OMG Eyehook Accuseam Plate	FL699	24-0627.03
	N/A	OMG Flat Bottom Metal Plate	FL699	24-0627.03
	N/A	OMG XHD	FL699	24-0627.03
	Duro-Bond Plate 1302	RHINOBOND Insulation Plate (PVC)	FL699	24-0627.03
	N/A	SFS DEKFAST DF-#12-PC-SQ3	FL20311	22-0913.02
	N/A	SFS Dekfast DF-#12-PH3	FL20311	22-0913.02
	N/A	SFS Dekfast DF-#14-PH3	FL20311	22-0913.02
	N/A	SFS Dekfast DF-#15-PH3	FL20311	22-0913.02
	N/A	SFS Dekfast PLT-H-2-7/8	FL20311	22-0913.02
	N/A	*isoweld*® F1-P-6.8-PVC Plate	FL20311	22-0913.02
	N/A	Trufast #12 DP	FL4500	25-0129.08
	N/A	Trufast #12 Purlin Fastener	FL4500	25-0129.08
	N/A	Trufast #14 HD	FL4500	25-0129.08

TABLE 2: COMPONENTS BY OTHERS (4.1.4)
(Refer to NOA if listed version was superseded to ensure use of latest version)

TYPE	DURO-LAST PRODUCT	ACCEPTABLE ALTERNATE	FBC	NOA
ROOFING FASTENERS:	Duro-Last #15 Extra Heavy Duty Drill Point Fastener	Trufast #15 EHD	FL4500	25-0129.08
	Duro-Last Auger Fastener	Trufast TL Fastener	FL4500	25-0129.08
	N/A	Trufast 3” Metal Insulation Plate	FL4500	25-0129.08
	Duro-Last Cleat Plate	Trufast 2.4" Scoop Seam Plate	FL4500	25-0129.08
	Duro-Last 2-inch Auger Plate	Trufast 2" TL Seam Plate	FL4500	25-0129.08
	N/A	Trufast FM-90 Base Sheet Fastener	FL4500	25-0129.08
	Duro-Bond PVC IW Plate	Trufast PVC IW Plate	FL4500	25-0129.08
	N/A	Trufast Versa-Fast Fastener	FL4500	25-0129.08
	N/A	Trufast Versa-Fast Metal Plate	FL4500	25-0129.08
	Duro-Last Batten Bar	Trufast Flat Batten Bar	FL4500	25-0129.08
	N/A	Trufast Twin Loc-Nail Assembled Fastener	FL4500	25-0129.08
	Duro-Last Fluted Concrete Nail	Trufast Fluted Concrete Nail	N/A	N/A
INSULATIONS:	Duro-Guard ISO II-A	ACFoam-II	FL17989	24-1120.02
	Duro-Guard ISO III-A	ACFoam-III	FL17989	24-1120.02
	Duro-Guard ISO HD-A	ACFoam HD Coverboard	FL17989	24-1120.02
	N/A	ENRGY 3	FL4205	24-0610.04
	N/A	ENRGY 3 CGF	FL4205	24-0610.04
	Duro-Guard ISO II-H	H-Shield	FL5968	24-1021.04
	Duro-Guard ISO III-H	H-Shield CG	FL5968	24-1021.04
	Duro-Guard ISO HD-H	H-Shield HD	FL5968	24-1021.04
	Duro-Guard ISO III-E2	ISOGARD GL	N/A	23-0613.13
	N/A	ISO 95+ GL	N/A	23-0613.13
	N/A	RESISTA	N/A	23-0613.13
	Duro-Guard ISO III-E2	ISOGARD CG	N/A	23-0613.13
	N/A	Multi-Max FA-3	N/A	22-0815.03
	N/A	Ultra-Max	N/A	22-0815.03
	N/A	DensDeck	FL1250	22-1223.04
	N/A	DensDeck Prime	FL1250	22-1223.04
	N/A	DEXcell Cement Roof Board	FL17840	25-0722.11
	N/A	DEXcell FA Glass Mat Roof Board	FL17840	25-0722.11
	N/A	SECUROCK Gypsum-Fiber Roof Board	FL4264	21-0923.05
	N/A	SECUROCK Ultralight Glass-Mat Roof Board	FL4264	21-0923.05
	Duro-Guard XPS Fan Fold	GreenGuard Roofing Recovery Board PB6	FL14164	23-0522.05
	N/A	SOPRABOARD	FL31780	20-0902.16
	DURO-GUARD EPS Type II-C	Cellofoam EPS Insulation (Type II)	FL17650	21-0506.04
	DURO-GUARD EPS FGF	Cellofoam FR Composite Insulation (Type II)	FL17650	21-0506.04
	N/A	Celcore Cellular Concrete	FL2037	24-0906.02
	N/A	Celcore MF Cellular Concrete	FL2037	24-0906.02

TABLE 2: COMPONENTS BY OTHERS (4.1.4) *(Refer to NOA if listed version was superseded to ensure use of latest version)*				
TYPE	**DURO-LAST PRODUCT**	**ACCEPTABLE ALTERNATE**	**FBC**	**NOA**
INSULATIONS:	N/A	Concrecel Lightweight Insulating Concrete	FL10500	21-1229.06
	N/A	Elastizell Lightweight Insulating Concrete	FL4994	23-0817.05
ADHESIVES:	Duro-Grip OlyBond 500	OlyBond 500	FL1608	24-0422.18
	Duro-Fleece Adhesive	Low-Rise Membrane Adhesive	FL1608	21-0422.03
	Duro-Grip Board-Max	Polyset Board-Max	FL22256	22-0614.11
	Duro-Grip CR-20	Polyset Commercial Roof Adhesive	FL1365	23-0718.11
	Duro-Fleece CR-20 Membrane Adhesive	Polyset Commercial Roof Adhesive	FL1365	23-0718.11
	Duro-Grip Millennium One Step Adhesive	Millennium One Step Foamable Adhesive	FL1800	25-0417.03
	Duro-Grip Millennium PG-1 EF ECO	Millennium PG-1 EF ECO	FL1800	25-0417.03
	Duro-Last Trufast	TRUFAST Roofing Adhesive	FL41878	24-0521.02
	Duro-Fleece Trufast Membrane Adhesive	TRUFAST Roofing Adhesive	FL41878	24-0521.02
	Duro-Fleece Trufast (HFO)	TRUFAST Roofing Adhesive Tanks	FL41878	24-0521.02
	Duro-Fleece Trufast Membrane Adhesive (HFO)	TRUFAST Roofing Adhesive Tanks	FL41878	24-0521.02
	N/A	DUOTACK 365	FL31780	22-0929.06
	N/A	DuPont ENERFOAM	N/A	N/A
PRIMERS:	Duro-Last VB Primer	ELASTOCOL Stick	N/A	23-1130.04
	N/A	ELASTOCOL Stick Zero	N/A	23-1130.04
ROLL GOODS:	Duro-Last Vapor Barrier	Sopravap'r	N/A	24-0610.08
	Duro-Last Torch Down Vapor Barrier	N/A	N/A	N/A
	N/A	Flexiglas Base Sheet	N/A	25-0606.05
	N/A	GAFGLAS #75 Base Sheet	FL11946	24-0808.04
	N/A	GAFGLAS Stratavent Nailable Venting Base Sheet	FL11946	24-0808.04
	N/A	PermaPly 28	FL1037	21-0303.25
	N/A	Elevate SBS Base	FL35402	23-0613.24
	N/A	Elevate SBS Poly Torch Base	FL35402	23-0613.24

3. INSTALLATION:

3.1 **Duro-Last Single Ply Roof Systems** shall be installed in accordance with **AMRIZE BUILDING ENVELOPE LLC (DURO-LAST)** published installation instructions, subject to the Limitations of Use noted herein.

3.1.1 Fasteners: Fasteners shall be of sufficient length for the following engagements.

TABLE 3: FASTENER REFERENCES

ROOF DECK	PARTS	FASTENER ENGAGEMENT
WOOD, ENGINEERED SHEATHING OR PLANK	Duro-Last #14 HD Fastener and Duro-Last 3-inch Metal Plate	Min. 0.75-inch penetration (engineered sheathing) or min. 1-inch embedment (plank)
STEEL	Duro-Last #14 HD Fastener, Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last 3-inch Metal Plate	Min. 0.75-inch penetration
STRUCTURAL CONCRETE	Duro-Last #14 HD Fastener, Duro-Last Concrete Screws or Duro-Last Fluted Concrete Nail and Duro-Last 3-inch Metal Plate	Non-HVHZ: Min. 1-inch embedment HVHZ: Min. 1.25-inch embedment

3.1.2 Insulation:

(a) Unless otherwise noted, insulation may be any one layer or combination of FBC Approved (Local or Statewide) board(s) that meet FBC 1505 and, for foam plastic, FBC Chapter 26, when installed with the roof cover.

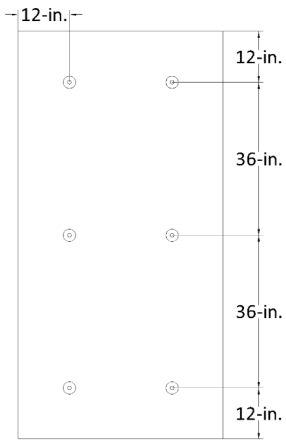
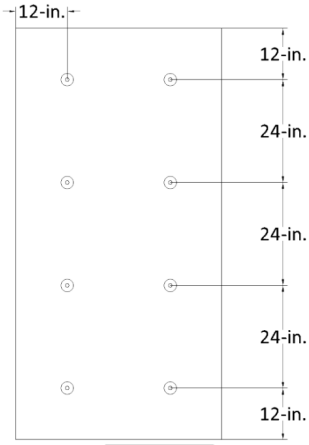
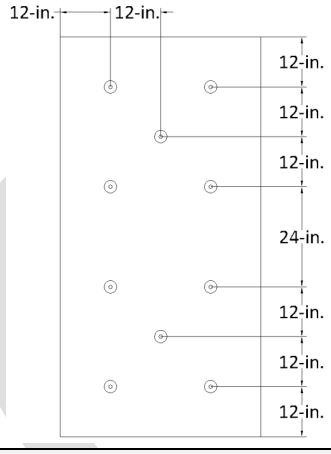
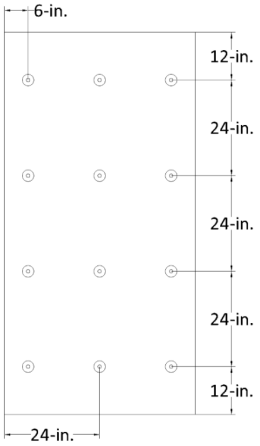
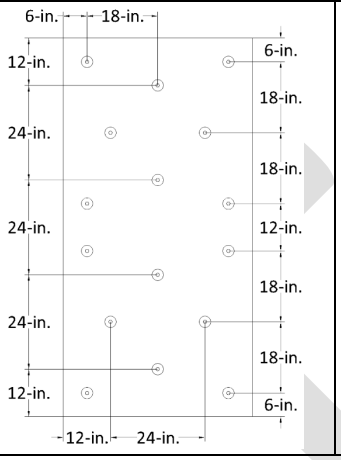
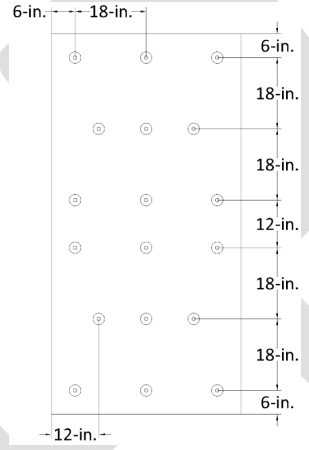
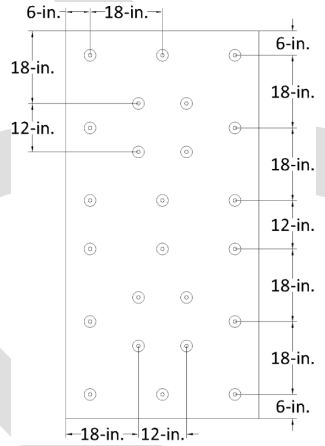
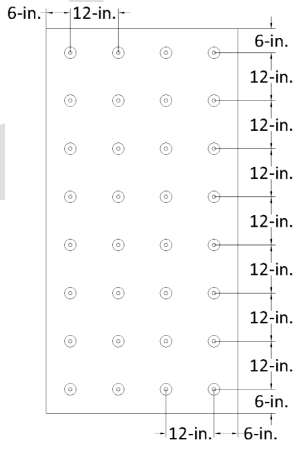
(b) For Structural Concrete Deck or Recover Applications using System Type C-1 the base insulation layer is optional and using System Type C-2, D-1 or D-2, the insulation is optional. Alternatively, an FBC Approved (Local or Statewide) slip sheet, insulation board or coverboard may be used as a separation layer. Board products shall be preliminarily attached prior to roof cover installation, see Section 3.1.2(f). The separator component shall be documented as meeting FBC 1505 and, for foam plastic, FBC Chapter 26, when installed with the roof cover in Recover applications.

(c) Minimum 200 psi, minimum 2-inch thick FBC Approved (Local or Statewide) lightweight insulating concrete may be substituted for, or installed below, rigid insulation board for System Types B-1, C-1, C-2, D-1 or D-2, whereby fasteners are installed through the lightweight insulating concrete to engage the structural deck. The structural deck shall be of equal or greater type, thickness and strength to the steel and structural concrete deck listings. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction. This is a wind uplift resistance allowance and does not purport to address non-wind-uplift-related issues, such as deck venting or moisture levels within the LWIC and the potential effect on overlying components.

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

(e) Unless otherwise noted, insulation or coverboard attachment patterns for Type B-1, Type B-2 and Type C-1 systems are as outlined below:

TABLE 4: INSULATION ATTACHMENT PATTERNS – 4x8 FT BOARDS

1 per 5.3 ft² (6 per board)	1 per 4.0 ft² (8 per board)	1 per 3.2 ft² (10 per board)	1 per 2.7 ft² (12 per board)
			
1 per 2.0 ft² (16 per board)	**1 per 1.8 ft² (18 per board)**	**1 per 1.3 ft² (24 per board)**	**1 per 1.0 ft² (32 per board)**
			

(f) Preliminary insulation attachment:

- Non-HVHZ: Unless otherwise noted, use FBC Approved (Local or Statewide) roofing fasteners and plates and refer to Section 2.2.10.1.3 of FM Loss Prevention Data Sheet 1-29.
- HVHZ: Unless otherwise noted, use FBC HVHZ Approved roofing fasteners and plates; minimum four fasteners per 4 x 8 ft board or minimum two fasteners per 4 x 4 ft board.

3.1.3 Insulation Adhesives:

(a) Unless otherwise noted, insulation adhesive application rate is continuous ribbons, maximum 12-inch o.c. Ribbon or bead width is at the time of application; the ribbons/beads shall expand as noted in the manufacturer's published instructions. If applying hot asphalt to concrete deck, deck shall be primed with ASTM D41 primer. 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.

- When applied to profiled steel roof deck, ribbons shall be applied to the top-flange so as to establish positive-contact with the overlying insulation board.

TABLE 5A: INSULATION ADHESIVE REFERENCES			
BY	ADHESIVE	REFERENCE	RATE
Duro-Last	Duro-Grip Millennium One Step Adhesive	M-OSA	Continuous ribbons, max. 12-inch o.c.
	Duro-Grip Millennium PG-1 EF ECO	M-PG1 ECO	Continuous ribbons, max. 12-inch o.c.
	Duro-Grip Board-Max	Board-Max	Continuous ribbons, max. 12-inch o.c.
	Duro-Grip CR-20	CR-20	Continuous ribbons, max. 12-inch o.c.
	Duro-Grip OlyBond 500	OB500	Continuous ribbons, max. 12-inch o.c.
	Duro-Last Trufast	Trufast RA	Continuous ribbons, max. 12-inch o.c.
	Duro-Last Trufast (HFO)	Trufast RA (HFO)	Continuous ribbons, max. 12-inch o.c.
SOPREMA, Inc.	DUOTACK 365	DUOTACK 365	Continuous ribbons, max. 12-inch o.c.
Generic	ASTM D312, Type IV	Hot asphalt	Full coverage at 25-30 lbs/square

(b) 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.

TABLE 5B: MDP LIMITATIONS FOR TAPERED POLYISOCYANURATE INSULATIONS			
ADHESIVE	INSULATION	MIN. TAPERED THICKNESS (IN.)	MDP (PSF)
M-OSA	Any polyisocyanurate listed herein	0.5	-157.5
CR-20	Any polyisocyanurate listed herein	1.0	-117.5
OB500	Duro-Guard ISO II-H	0.5	-315.0
	Duro-Guard ISO II-A	0.5	-487.5

(c) Adhered Insulation, Board Size:

- Non-HVHZ: Unless otherwise noted, refer to Section 2.2.10.6.2 of FM Loss Prevention Data Sheet 1-29.
- HVHZ: Bonded polyisocyanurate insulation boards shall be maximum 4 x 4 ft.

3.1.4 Roof Covers:

(a) For bonded membrane applications, unless otherwise noted, refer to the following.

TABLE 6: MEMBRANE / ADHESIVE COMBINATIONS					
REFERENCE	LAYER	MEMBRANE	ADHESIVE	APPLICATION	RATE
BB1-SB IV	Roof Cover:	Duro-Last, Duro-Last X, Duro-Last EV or Duro-Tuff	Duro-Last SB IV	Contact	1.67 gal/sq./surface
BB2-SGSA	Roof Cover:	Duro-Last, Duro-Last X or Duro-Tuff	Duro-Last Solvent-Grip Spray Adhesive	Contact	3.0 lb./sq./surface
BB3-SGSA	Roof Cover:	Duro-Last, Duro-Last X, Duro-Last EV or Duro-Tuff	Duro-Last Solvent-Grip Plus Spray Adhesive	Contact	3.0 lb./sq./surface
BB4-WB II	Roof Cover:	Duro-Last, Duro-Last X, Duro-Last EV or Duro-Tuff	Duro-Last WB II	Substrate only	0.7 gal/sq.
FB1-WB II	Roof Cover:	Duro-Fleece or Duro-Fleece Plus	Duro-Last WB II	Substrate only	1.0 gal/sq.
FB2-DFA	Roof Cover:	Duro-Fleece or Duro-Fleece Plus	Duro-Fleece Adhesive	Substrate only	Continuous ¾-inch wide ribbons, 6-inch o.c.
FB3-DF CR-20	Roof Cover:	Duro-Fleece or Duro-Fleece Plus	Duro-Fleece CR-20 Membrane Adhesive	Substrate only	Splatter-applied, full coverage per Duro-Last instructions
FB4-TRA	Roof Cover:	Duro-Fleece or Duro-Fleece Plus	Duro-Fleece Trufast Membrane Adhesive	Substrate only	RIBBONS: Continuous ¾ to 1-inch wide ribbons, 4-inch o.c., resulting in full-coverage SPLATTER: Splatter-applied, full coverage, 3.0 lbs/square

TABLE 6: MEMBRANE / ADHESIVE COMBINATIONS					
REFERENCE	LAYER	MEMBRANE	ADHESIVE	APPLICATION	RATE
FB5-OB500	Roof Cover:	Duro-Fleece or Duro-Fleece Plus	Duro-Grip OlyBond 500	Substrate only	RIBBONS: Continuous ribbons, spaced as noted herein or SPLATTER: Splatter-applied, full coverage, 0.32 gal/square
FB6-TRA	Roof Cover:	Duro-Fleece or Duro-Fleece Plus	Duro-Fleece Trufast Membrane Adhesive (HFO)	Substrate only	RIBBONS: Continuous ribbons, spaced as noted herein or SPLATTER: Splatter-applied, full coverage, 3.0 lbs/square
FB7-PG1 ECO	Roof Cover:	Duro-Fleece or Duro-Fleece Plus	Duro-Grip Millennium PG-1 EF ECO	Substrate only	RIBBONS: Continuous ribbons, spaced as noted herein or SPLATTER: Splatter-applied, full coverage, 0.3 gal/square
SBS-TAF	Base Ply:	ELASTOPHENE Flam HS, ELASTOPHENE Flam 2.2, ELASTOPHENE Flam 3.0, ELASTOPHENE SP 2.2, ELASTOPHENE SP 3.0, SOPRALENE Flam 180, SOPRALENE 180 SP 3.0, SOPRALENE 180 SP 3.5, SOPRALENE Flam 250, SOPRALENE 250 SP 4.0	Torch-Applied	Torch-applied	Full Bond
SBS-SA1	Base Ply:	ELASTOPHENE Stick, SOPRALENE Stick, SOPRALENE Flam Stick	Self-Adhering	Torch-applied	Full Bond

(b) For single-ply membranes in System Type D-1 steel deck applications, the roof membrane shall be run with its length perpendicular to the steel deck flutes. For membrane attachment using batten-strips, batten-strip end laps shall be spliced with sufficient dimension to allow for minimum 2-fasteners at each batten-strip lap.

(c) For System Type C-2 (induction weld), care shall be taken to ensure that the plates do not line-up with membrane seams. This condition may preclude proper induction welding of the membrane to the plates.

3.1.5 Vapor barrier:

(a) For System Types B-1, B-2, C-1, C-2, D-1 or Type D-2, an optional thermal barrier and/or VaporTite (self-adhering) vapor barrier membrane may be installed atop the roof deck prior to installation of the insulation and roof cover. Refer to FM Loss Prevention Data Sheet 1-29 for design and installation recommendations and limitations.

(b) Refer to Section 4.3 herein for options where the vapor barrier forms part of the load path

4. LIMITATIONS OF USE:

4.1 General:

4.1.1 This is a building code evaluation. NEMO CERT, LLC is not, in any way, the Designer of Record for any project on which this NER, or previous versions thereof, is/was used for permitting or design guidance. NERs are not to be construed as representing any attributes not specifically listed, nor are NERs to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by NEMO CERT, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.

4.1.2 Roof Decks:

(a) This NER 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.

(b) OSB sheathing is not permitted in FBC HVHZ jurisdictions.

(c) Unless otherwise noted, reference to 'structural concrete' pertains to min. 2,500 psi structural concrete, and excludes 'structural lightweight concrete'.

(d) FBC HVHZ Specific: The table below lists various 'as-tested' deck conditions in accordance with Testing Application Standard TAS 114(J). In no case shall these values be used to 'increase' the MDP listings for the selected systems; the lesser MDP applies.

TABLE 7: AS-TESTED DECK ATTACHMENT DETAILS (TAS 114, APPENDIX J)

TYPE	AS TESTED SUB-ASSEMBLY			
	SPAN (INCH O.C.)	FASTENER	SPACING (INCH O.C.)	MDP (psf)
15/32-inch APA rated CDX plywood	24	0.113-inch x 2-3/8" ring shank nails	6	-60
19/32-inch APA rated CDX plywood	24	0.113-inch x 2-3/8" ring shank nails	6	-90.0
22 ga., Type B, Grade 33 steel	72	#12-24 HWH screws	6	-90.0
	72	#12 HWH Teks 5 with ¾" steel washers	6	-90.0
22 ga., Type B, Grade 40 steel	72	#12 HWH Teks 5	6	-135.0
22 ga., Type B, 50 ksi steel	72	5/8" puddle welds	6	-67.5
22 ga., Type B, 50 ksi steel	72	#12-24 HWH screws	6	-75.0
26 ga., Type R-Panel, Grade 80 steel	60	#12 x 1-¼ HWH screws	6	-52.5
26 ga., Type R-Panel, Grade 80 steel	60	#12-24 HWH screws	5 – 7 pattern	-67.5
22 ga., Type B, Grade 80 steel	72	#12 HWH Teks 5 with ¾" steel washers	6	-105.0
Note:	Steel deck stress analysis is the responsibility of others to the satisfaction of the Authority Having Jurisdiction			

4.1.3 Fire Classification:

(a) Refer to **FBC 1505, FBC HVHZ 1516, UL TGFU.R10128** and the fire classification certificate for the roof cover manufacturer for requirements and limitations regarding roof assembly fire classification.

(b) Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.

4.1.4 Quality Assurance:

All components in the roof assembly shall have quality assurance surveillance in accordance with **F.A.C. Rule 61G20-3**. For components listed herein that are produced by a manufacturer other than the report holder on Page 1 of this NER, refer to the Florida Product Approval or NOA of the component manufacturer.

4.2 **Jurisdiction Specific:**

	Non-HVHZ	HVHZ
4.2.1	This NER does not include evaluation of roof edge termination. Refer to **FBC 1504.5** for requirements and limitations regarding edge securement for low-slope roofs.	This NER does not include evaluation of roof edge termination. Refer to **RAS 111** for requirements and limitations regarding edge securement for low-slope roofs.
4.2.2	Refer to **FBC 1511** for requirements and limitations regarding recover installations.	Refer to **FBC HVHZ 1521** for requirements and limitations regarding recover installations.
(a)	For mechanical attachment to existing roof decks, fasteners shall be tested for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing shall be in accordance with **ANSI/SPRI FX-1** or **TAS 105**.	For mechanical attachment to existing roof decks, fasteners shall be tested for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing shall be in accordance with **TAS 105**.
(b)	For adhered re-roof (tear off) installation, the existing substrate shall be examined for compatibility with the adhesive. If any surface conditions exist that bring system performance into question, field uplift testing in accordance with **ANSI/SPRI IA-1**, **FM Loss Prevention Data Sheet 1-52** or **TAS 124** shall be conducted on mock-ups of the proposed interface.	For adhered re-roof (tear off) installation, the existing substrate 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 **TAS 124** shall be conducted on mock-ups of the proposed interface.
(c)	For adhered recover installation, the existing roof system shall meet project design pressure requirements on its own merit to the satisfaction of the Authority Having Jurisdiction, as documented through field uplift testing in accordance with **FM Loss Prevention Data Sheet 1-52** or **TAS 124**.	For adhered recover installation, the existing roof system shall meet project design pressure requirements on its own merit to the satisfaction of the Authority Having Jurisdiction, as documented through field uplift testing in accordance with **TAS 124**.
4.2.3	Wind Load Resistance:	
(a)	Refer to Section 4.3 for a tabulated summary of assembly listings and maximum allowable design pressures.	
(b)	"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.	"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 **TAS 114** has already been applied)*. Refer to **FBC HVHZ 1620** or **RAS 128** for determination of design wind loads.
(c)	The MDP for the selected assembly shall meet or exceed at least the Zone 1 PRIME design pressure determined in accordance with **FBC Chapter 16**. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are **ANSI/SPRI WD1**, **FM Loss Prevention Data Sheet 1-29**, **RAS 117** and **RAS 137**. Assemblies marked with an asterisk* carry the limitations set forth in **Section 2.2.10.1 of FM Loss Prevention Data Sheet 1-29** for Zone 2/3 enhancements.	The MDP for the selected assembly shall meet or exceed at least the Zone 1 PRIME design pressure determined in accordance with **FBC HVHZ 1620** or **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 **RAS 117** or **RAS 137**.
(d)	For fully-adhered installations, the maximum design pressure for the selected assembly shall meet or exceed the critical design pressure. Rational analysis is not permitted.	For assemblies marked with an asterisk*, the maximum design pressure (MDP) limitation shall be applicable to all roof pressure zones. Rational analysis is not permitted.

4.3 System Listings and Allowable Design Pressures: See Section 4.2.3

4.3.1 Thermal Barriers / Vapor Barriers: The lesser of the MDP listings below vs. that for the selected roof assembly from Section 4.3.2 applies.

(a) Structural Concrete Decks:

TABLE VB-1: STRUCTURAL CONCRETE DECK
VAPOR BARRIER FOLLOWED BY ADHERED INSULATION

OPTION #	PRIMER	VAPOR BARRIER		INSULATION ADHESIVE PER TABLE 10A OR TABLE 10B	MDP (PSF)
		TYPE	APPLICATION		
C-VB-1.	ASTM D41	Duro-Last Torch Down Vapor Barrier	torch-applied	Board-Max, 12-inch o.c.	-37.5
C-VB-2.	ASTM D41	Duro-Last Torch Down Vapor Barrier	torch-applied	OB500, 12-inch o.c.	-382.5
C-VB-3.	ASTM D41	Duro-Last Torch Down Vapor Barrier	torch-applied	Trufast RA, 12-inch o.c.	-180.0
C-VB-4.	ASTM D41	Duro-Last Torch Down Vapor Barrier	torch-applied	M-OSA, 12-inch o.c.	-270.0
C-VB-5.	Duro-Last VB Primer	Duro-Last Vapor Barrier	self-adhering	Board-Max, 12-inch o.c.	-37.5
C-VB-6.	Duro-Last VB Primer	Duro-Last Vapor Barrier	self-adhering	OB500, 12-inch o.c.	-187.5
C-VB-7.	Duro-Last VB Primer	Duro-Last Vapor Barrier	self-adhering	Trufast RA, 12-inch o.c.	-390.0
C-VB-8.	Duro-Last VB Primer	Duro-Last Vapor Barrier	self-adhering	M-OSA, 12-inch o.c.	-172.5

4.3.2 Roof Assemblies:

ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE

TABLE	DECK	APPLICATION	TYPE	DESCRIPTION	PAGE
8A	Wood	New, Reroof (Tear-Off()	A-1	Bonded Insulation, Bonded Roof Cover (not for use in HVHZ jurisdictions)	13
8B	Wood	Recover	B-1	Mechanically Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	14
8C	Wood	New, Reroof (Tear-Off) or Recover	C-1	Mech. Attached Insulation, Bonded Roof Cover	14
8D	Wood	New, Reroof (Tear-Off) or Recover	C-2	Mechanically Attached Insulation, Induction Welded Roof Cover	16
8E	Wood	New, Reroof (Tear-Off) or Recover	D-1	Preliminarily Attached Insulation, Mechanically Attached Roof Cover	18
8F	Wood	New, Reroof (Tear-Off) or Recover	E-3	Non-Insulated, Mechanically Attached and Induction Welded Roof Cover	20
9A	Steel	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	21
9B	Steel or Structural Concrete	New, Reroof (Tear-Off) or Recover	B-1	Mechanically Attached Base Insulation, Bonded Top Insulation, Bonded Roof Cover	22
9C	Steel or Structural Concrete	New, Reroof (Tear-Off) or Recover	B-1	Mechanically Attached Base Insulation, Bonded Top Insulation, Bonded Multi-Ply Roof Cover	24
9D	Steel or Structural Concrete	New, Reroof (Tear-Off) or Recover	C-1	Mechanically Attached Insulation, Bonded Roof Cover	25
9E	Steel	New, Reroof (Tear-Off) or Recover	C-2	Mechanically Attached Insulation, Induction Welded Roof Cover	29
9F	Steel	New, Reroof (Tear-Off) or Recover	D-1	Preliminarily Attached Insulation, Mechanically Attached Roof Cover	34
9G	Steel	New or Reroof (Tear-Off)	D-2	Insulated, Mechanically Attached Base Sheet, Bonded Roof Cover	38
10A	Structural Concrete	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	38
10B	Structural Concrete	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Multi-Ply Roof Cover	43

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ATTACHMENT REQUIREMENTS FOR WIND UPLIFT RESISTANCE

TABLE	DECK	APPLICATION	TYPE	DESCRIPTION	PAGE
10C	Structural Concrete	New, Reroof (Tear-Off) or Recover	C-2	Mechanically Attached Insulation, Induction Welded Roof Cover	43
10D	Structural Concrete	New, Reroof (Tear-Off) or Recover	D-1	Preliminarily Attached Insulation, Mechanically Attached Roof Cover	47
10E	Structural Concrete	New, Reroof (Tear-Off)	F	Non-Insulated, Bonded Roof Cover	48
11A	Lightweight concrete / steel	New or Reroof (Tear-Off)	A-1	LWIC to Steel Deck, Bonded Insulation, Bonded Roof Cover	49
11B	Lightweight concrete / struct. concrete	New or Reroof (Tear-Off)	A-1	LWIC to Structural Concrete Deck, Bonded Insulation, Bonded Roof Cover	49
11C	Lightweight concrete / steel	New or Reroof (Tear-Off)	E-1	LWIC to Steel Deck, Mechanically Attached Roof Cover	51
11D	Lightweight concrete / steel	New or Reroof (Tear-Off)	E-2	LWIC to Steel Deck, Mechanically Attached Base Sheet, Bonded Roof Cover	52
11E	Lightweight concrete / steel	New or Reroof (Tear-Off)	F	LWIC to Steel Deck, Bonded Roof Cover	52
11F	Lightweight concrete / struct. concrete	New or Reroof (Tear-Off)	F	LWIC to Structural Concrete Deck / Bonded Roof Cover	53
12A	Cementitious wood fiber	New or Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Multi-Ply Roof Cover	54
12B	Cementitious wood fiber	New, Reroof (Tear-Off) or Recover	D-1	Preliminarily Attached Insulation, Mechanically Attached Roof Cover	54
12C	Cementitious wood fiber	New, Reroof (Tear-Off) or Recover	E-1	Non-insulated, Mechanically Attached Roof Cover	54
12D	Cementitious wood fiber	New, Reroof (Tear-Off) or Recover	E-2	Non-Insulated, Mechanically Attached Base Sheet, Bonded Roof Cover	55
13A	Gypsum	Reroof (Tear-Off)	A-1	Bonded Insulation, Bonded Roof Cover	56
13B	Gypsum	Reroof (Tear-Off) or Recover	D-1	Preliminarily Attached Insulation, Mechanically Attached Roof Cover	57
13C	Gypsum	Reroof (Tear-Off)	E-1	Non-Insulated, Mechanically Attached Roof Cover	57
14A	Various	Recover	A-1	Bonded Insulation, Bonded Roof Cover	57
14B	Steel	Recover	C-2	Mechanically Attached Insulation, Induction Welded Roof Cover	60
14C	Steel	Recover	D-1	Insulated, Mechanically Attached Roof Cover	62
14D	Cementitious wood fiber	Recover	E-1	Non-insulated, Mechanically Attached Roof Cover	63
14E	Various	Recover	F	Non-Insulated, Bonded Roof Cover	64

TABLE 8A: WOOD DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER NOT FOR USE IN HVHZ JURISDICTIONS							
System No.	Deck (4.1.2)	Base Insulation Layer		Top Insulation Layer		Roof Cover (3.1.4)	MDP (psf)
		Type	Attach (3.1.3)	Type	Attach (3.1.3)		
BAREBACK MEMBRANE APPLICATIONS:							
W-1.	APA rated, 7/16 CAT, 0.418 in., Exposure 1 OSB, min. 15/32" APA rated plywood or nominal 1" T&G wood plank	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, Duro-Guard ISO III-H, Multi-Max FA3 or Ultra-Max	DUOTACK 365, 12" o.c.	Min. 0.25-inch DensDeck Prime, DEXcell FA Glass Mat Roof Board or SECUROCK Gypsum Fiber Roof Board or Min. 7/16-inch DEXcell Cement Roof Board	DUOTACK 365, 12" o.c.	BB1-SB IV, BB2-SGSA, BB3-SGSA, BB4-WB II	-52.5
W-2.	Plywood, APA, 15/32", rating 32/16, Grade CDX	Min. 0.5-inch DEXcell Cement Roof Board	CR-20 splatter-applied at 5 lbs/sq.	None	N/A	BB1-SB IV, BB3-SGSA or BB4-WB II	-60.0
W-3.	Four (4) plies, plywood, APA, 19/32", rating 40/20, Grade CDX	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Trufast RA, 6-inch. o.c.	None	N/A	BB1-SB IV, BB2-SGSA, BB3-SGSA, BB4-WB II	-75.0
W-4.	APA rated, 7/16 CAT, 0.418 in., Exposure 1 OSB, min. 15/32" APA rated plywood or nominal 1" T&G wood plank	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, Duro-Guard ISO III-H, Multi-Max FA3 or Ultra-Max	DUOTACK 365, 6" o.c.	Min. 0.25-in. DensDeck Prime, DEXcell FA Glass Mat Roof Board or SECUROCK Gypsum-Fiber Roof Board or min. 7/16-inch DEXcell Cement Roof Board	DUOTACK 365, 6" o.c.	BB1-SB IV, BB2-SGSA, BB3-SGSA, BB4-WB II	-105.0
DURO-FLEECE OR DURO-FLEECE PLUS MEMBRANE APPLICATIONS:							
W-5.	APA rated, 7/16 CAT, 0.418 in., Exposure 1 OSB, min. 15/32" APA rated plywood or nominal 1" T&G wood plank	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, Duro-Guard ISO III-H, Multi-Max FA3 or Ultra-Max	DUOTACK 365, 12" o.c.	Min. 0.25-inch DensDeck Prime, DEXcell FA Glass Mat Roof Board or SECUROCK Gypsum Fiber Roof Board or Min. 7/16-inch DEXcell Cement Roof Board	DUOTACK 365, 12" o.c.	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-52.5
W-6.	Plywood, APA, 15/32", rating 32/16, Grade CDX	Min. 0.5-inch DEXcell Cement Roof Board	CR-20 splatter-applied at 5 lbs/sq.	None	N/A	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-60.0
W-7.	Four (4) plies, plywood, APA, 19/32", rating 40/20, Grade CDX	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Trufast RA, 6-inch. o.c.	None	N/A	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-75.0

TABLE 8A: WOOD DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER NOT FOR USE IN HVHZ JURISDICTIONS							
System No.	Deck (4.1.2)	Base Insulation Layer		Top Insulation Layer		Roof Cover (3.1.4)	MDP (psf)
		Type	Attach (3.1.3)	Type	Attach (3.1.3)		
W-8.	APA rated, 7/16 CAT, 0.418 in., Exposure 1 OSB, min. 15/32" APA rated plywood or nominal 1" T&G wood plank	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, Duro-Guard ISO III-H, Multi-Max FA3 or Ultra-Max	DUOTACK 365, 6" o.c.	Min. 0.25-in. DensDeck Prime, DEXcell FA Glass Mat Roof Board or SECUROCK Gypsum-Fiber Roof Board or min. 7/16-inch DEXcell Cement Roof Board	DUOTACK 365, 6" o.c.	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-105.0

TABLE 8B: WOOD 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 (4.1.2)	Base Insulation Layer			Top Insulation Layer		Roof Cover (3.1.4)	MDP (psf)
		Type	Fastener (4.2.2)	Attach (3.1.2)	Type	Attach (3.1.3)		
W-9.	Four (4) plies, plywood, APA, 19/32", rating 40/20, Grade CDX	Min. 3/8-inch DURO-GUARD XPS FAN FOLD followed by min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-H or Duro-Guard ISO III-A	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last 3-inch Metal Plate	1 per 2.0 ft²	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Trufast RA, 6-inch. o.c.	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-60.0

TABLE 8C: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER							
System No.	Deck (4.1.2)	Base Insulation Layer (3.1.2, 4.2.2)	Top Insulation Layer			Roof Cover (3.1.4)	MDP (psf)
			Type	Fastener (4.2.2)	Attach (3.1.2)		
BAREBACK MEMBRANE APPLICATIONS:							
W-10.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last 3-inch Metal Plate	1 per 2.0 ft²	BB1-SB IV, BB3-SGSA or BB4-WB II	-52.5
W-11.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination	Min. 7/16-inch DEXcell Cement Roof Board	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last 3-inch Metal Plate	1 per 2.0 ft²	BB1-SB IV, BB3-SGSA	-52.5
W-12.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination	Min. 7/16-inch DEXcell Cement Roof Board	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last 3-inch Metal Plate	1 per 2.0 ft²	BB3-SGSA, BB4-WB II	-60.0

TABLE 8C: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER							
System No.	Deck (4.1.2)	Base Insulation Layer (3.1.2, 4.2.2)	Top Insulation Layer			Roof Cover (3.1.4)	MDP (psf)
			Type	Fastener (4.2.2)	Attach (3.1.2)		
W-13.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last 3-inch Metal Plate	1 per 1.8 ft²	BB1-SB IV, BB3-SGSA or BB4-WB II	-67.5
W-14.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination	Min. 7/16-inch DEXcell Cement Roof Board	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last 3-inch Metal Plate	1 per 1.8 ft²	BB1-SB IV, BB3-SGSA	-67.5
W-15.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination	Min. 7/16-inch DEXcell Cement Roof Board	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last 3-inch Metal Plate	1 per 1.8 ft²	BB3-SGSA, BB4-WB II	-75.0
DURO-FLEECE OR DURO-FLEECE PLUS MEMBRANE APPLICATIONS:							
W-16.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last 3-inch Metal Plate	1 per 2.0 ft²	FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-52.5
W-17.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last 3-inch Metal Plate	1 per 2.0 ft²	FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB3-DF CR-20 (SPLATTER)	-60.0
W-18.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination	Min. 7/16-inch DEXcell Cement Roof Board	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last 3-inch Metal Plate	1 per 2.0 ft²	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-60.0
W-19.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last 3-inch Metal Plate	1 per 1.8 ft²	FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-67.5
W-20.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last 3-inch Metal Plate	1 per 1.8 ft²	FB3-DF CR-20 (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER) or FB7-PG1 ECO (SPLATTER)	-75.0
W-21.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination	Min. 7/16-inch DEXcell Cement Roof Board	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last 3-inch Metal Plate	1 per 1.8 ft²	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-75.0

TABLE 8D: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER						
System No.	Deck (4.1.2)	Insulation Layer (3.1.2, 4.2.2)	Attach		Roof Cover (3.1.4)	MDP (psf)
			Fastener (4.2.2)	Density (3.1.2)		
RHINOBOND INDUCTION WELD:						
W-22.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination; preliminarily attached	Duro-Last #14 HD with Duro-Bond Plate 1302	Fastener 12-inch o.c. in rows spaced 72-inch o.c. positioned atop wood trusses; minimum 0.9-inch fastener embedment into trusses	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-37.5 (NO HVHZ)
W-23.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination; preliminarily attached	Duro-Last #14 HD with Duro-Bond Plate 1302	Fastener 18-inch o.c. in rows spaced 48-inch o.c. positioned atop wood trusses; minimum 0.9-inch fastener embedment into trusses	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-37.5 (NO HVHZ)
W-24.	Four (4) plies, plywood, APA, 19/32", rating 40/20, Grade CDX	(Optional) One or more layers, any combination; preliminarily attached	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate or Duro-Bond Plate 1302	12-inch o.c. in rows spaced 48-inch o.c. along wood structural members	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-37.5 (NO HVHZ)
W-25.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination; preliminarily attached	Duro-Last #14 HD with Duro-Bond Plate 1302	Fastener 12-inch o.c. in rows spaced 48-inch o.c. positioned atop wood trusses; minimum 0.9-inch fastener embedment into trusses	Duro-Last (min. 60 mil) , Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-52.5
W-26.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination; preliminarily attached	Duro-Last #14 HD with Duro-Bond Plate 1302	Fastener 6-inch o.c. in rows spaced 96-inch o.c. positioned atop wood trusses; minimum 0.9-inch fastener embedment into trusses	Duro-Last (min. 60 mil) , Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-60.0
W-27.	Four (4) plies, plywood, APA, 19/32", rating 40/20, Grade CDX	(Optional) One or more layers, any combination; preliminarily attached	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate or Duro-Bond Plate 1302	1 per 2.25 ft^2 (18 x 18 inch grid pattern)	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-60.0

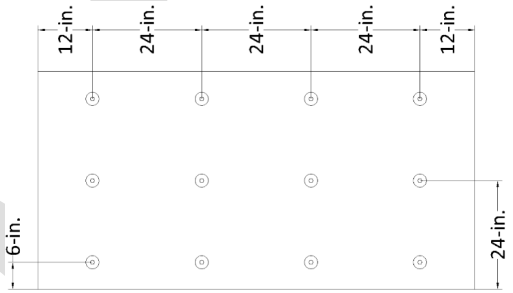
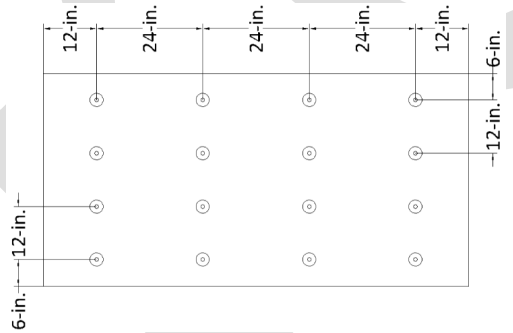
TABLE 8D: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER						
System No.	**Deck** (4.1.2)	**Insulation Layer** (3.1.2, 4.2.2)	**Attach**		**Roof Cover** (3.1.4)	**MDP** (psf)
			Fastener (4.2.2)	**Density** (3.1.2)		
W-28.	Plywood, APA, 19/32”, rating 32/16, Grade CDX	One or more layers, any combination; min. 1.5-inch, min. 16 psi	Duro-Last #14 HD with Duro-Bond Plate 1302	1 per 2.7 ft² (12 parts per 4 x 8 ft bird; Fastener engage wood trusses, minimum 0.9-inch embedment) 	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Tuff (min. 50 mil) or Duro-Last EV (min. 50-mil) induction welded using RHINOBOND Installation Tool	-60.0
W-29.	Plywood, APA, 19/32”, rating 32/16, Grade CDX	One or more layers, any combination; min. 1.5-inch, min. 16 psi	Duro-Last #14 HD with Duro-Bond Plate 1302	1 per 2.0 ft² (16 parts per 4 x 8 ft board; Fastener engage wood trusses, minimum 0.9-inch embedment) 	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Tuff (min. 50 mil) or Duro-Last EV (min. 50-mil) induction welded using RHINOBOND Installation Tool	-90.0

TABLE 8E: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER							
System No.	Deck (4.1.2)	Insulation (3.1.2, 4.2.2)		Roof Cover			MDP (psf)
		Type	Attach (3.1.2)	Membrane	Fastener (4.2.2)	Attach	
STANDARD LAP SYSTEMS, DURO-LAST MEMBRANE:							
W-30.	Plywood, APA, 15/32", rating 32/16, Grade CDX	One or more layers, any combination, min. 0.5-inch	Prelim. attached	Duro-Last, min. 40-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener and Duro-Last Poly-Plate or Duro-Last Cleat Plate	Standard Lap System fastened 6-inch o.c. within 3-inch wide tabs spaced 60-inch o.c.	-30.0 (NO HVHZ)
W-31.	Plywood, APA, 19/32", rating 32/16, Grade CDX	Min. 1-inch Duro-Guard ISO II-H, Duro-Guard ISO II-A, Duro-Guard ISO III-H or Duro-Guard ISO III-A	Prelim. attached	Duro-Last, min. 40-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last Poly-Plate or Duro-Last Cleat Plate	Standard Lap System fastened 12-inch o.c. within 6-inch wide tabs spaced 58-inch o.c.	-30.0 (NO HVHZ)
W-32.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination	Prelim. attached	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last 2.4-inch Barbed Metal Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide tabs spaced 57-inch o.c. *Screws located 2.7-inches from tab edge*	-52.5
W-33.	Plywood, APA, 19/32", rating 32/16, Grade CDX	Min. 1-inch Duro-Guard ISO II-H, Duro-Guard ISO II-A, Duro-Guard ISO III-H or Duro-Guard ISO III-A	Prelim. attached	Duro-Last, min. 40-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last Poly-Plate or Duro-Last Cleat Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide tabs spaced 58-inch o.c.	-52.5
W-34.	Plywood, APA, 15/32", rating 32/16, Grade CDX	One or more layers, any combination, min. 0.5-inch	Prelim. attached	Duro-Last, min. 40-mil	Duro-Last #15 Extra Heavy Duty Drill Point or Duro-Last #15 Heavy Duty Screw Fastener Fastener and Duro-Last Poly-Plate or Duro-Last Cleat Plate	Standard Lap System fastened 6-inch o.c. within 3-inch wide tabs spaced 28-inch o.c.	-60.0
STANDARD LAP SYSTEMS; DURO-LAST EV MEMBRANE:							
W-35.	Plywood, APA, 19/32", rating 32/16, Grade CDX	Min. 1-inch Duro-Guard ISO II-H, Duro-Guard ISO II-A, Duro-Guard ISO III-H or Duro-Guard ISO III-A	Prelim. attached	Duro-Last EV, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last Poly-Plate or Duro-Last Cleat Plate	Standard Lap System fastened 12-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Lap sealed with 1.5-inch heat weld	-30.0 (NO HVHZ)
W-36.	Plywood, APA, 19/32", rating 32/16, Grade CDX	Min. 1-inch Duro-Guard ISO II-H, Duro-Guard ISO II-A, Duro-Guard ISO III-H or Duro-Guard ISO III-A	Prelim. attached	Duro-Last EV, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last Poly-Plate or Duro-Last Cleat Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Lap sealed with 1.5-inch heat weld	-37.5 (NO HVHZ)

TABLE 8E: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER							
System No.	Deck (4.1.2)	Insulation (3.1.2, 4.2.2)		Roof Cover			MDP (psf)
		Type	Attach (3.1.2)	Membrane	Fastener (4.2.2)	Attach	
W-37.	Plywood, APA, 19/32", rating 32/16, Grade CDX	Min. 1-inch Duro-Guard ISO II-H, Duro-Guard ISO II-A, Duro-Guard ISO III-H or Duro-Guard ISO III-A	Prelim. attached	Duro-Last EV, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last Poly-Plate or Duro-Last Cleat Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Lap sealed with 1.5-inch heat weld	-52.5
STANDARD LAP SYSTEMS; DURO-TUFF OR DURO-LAST X MEMBRANE:							
W-38.	Four (4) plies, plywood, APA, 19/32", rating 40/20, Grade CDX	Min. 3/8-inch DURO-GUARD XPS FAN FOLD	Loose-laid	Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Poly-Plate or Duro-Last Cleat Plate	Standard Lap System fastened 12-inch o.c. within 4-inch wide laps spaced 60-inch o.c. Laps sealed with 1.5-inch heat weld.	-22.5 (NO HVHZ)
W-39.	Plywood, APA, 15/32", rating 32/16, Grade CDX	One or more layers, any combination, min. 0.5-inch	Prelim. attached	Duro-Tuff, min. 50-mil or Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last Poly-Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Lap sealed with 1.5-inch heat weld	-30.0 (NO HVHZ)
W-40.	Plywood, APA, 19/32", rating 32/16, Grade CDX	Min. 1-inch Duro-Guard ISO II-H, Duro-Guard ISO II-A, Duro-Guard ISO III-H or Duro-Guard ISO III-A	Prelim. attached	Duro-Tuff, min. 50-mil or Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last Cleat Plate	Standard Lap System fastened 12-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Lap sealed with 1.5-inch heat weld	-30.0 (NO HVHZ)
W-41.	Plywood, APA, 19/32", rating 32/16, Grade CDX	One or more layers, any combination, min. 0.5-inch	Prelim. attached	Duro-Tuff, min. 50-mil or Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last Poly-Plate	Standard Lap System fastened 12-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Lap sealed with 1.5-inch heat weld	-37.5 (NO HVHZ)
W-42.	Plywood, APA, 19/32", rating 32/16, Grade CDX	Min. 1-inch Duro-Guard ISO II-H, Duro-Guard ISO II-A, Duro-Guard ISO III-H or Duro-Guard ISO III-A	Prelim. attached	Duro-Tuff, min. 50-mil or Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last Cleat Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Lap sealed with 1.5-inch heat weld	-37.5 (NO HVHZ)
W-43.	Plywood, APA, 19/32", rating 32/16, Grade CDX	One or more layers, any combination, min. 0.5-inch	Prelim. attached	Duro-Tuff, min. 50-mil or Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last Poly-Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Lap sealed with 1.5-inch heat weld	-52.5
W-44.	Plywood, APA, 19/32", rating 32/16, Grade CDX	Min. 1-inch Duro-Guard ISO II-H, Duro-Guard ISO II-A, Duro-Guard ISO III-H or Duro-Guard ISO III-A	Prelim. attached	Duro-Tuff, min. 50-mil or Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last Cleat Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Lap sealed with 1.5-inch heat weld	-52.5

TABLE 8E: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER							
System No.	Deck (4.1.2)	Insulation (3.1.2, 4.2.2)		Roof Cover			MDP (psf)
		Type	Attach (3.1.2)	Membrane	Fastener (4.2.2)	Attach	
W-45.	Plywood, APA, 15/32", rating 32/16, Grade CDX	One or more layers, any combination, min. 0.5-inch	Prelim. attached	Duro-Tuff, min. 50-mil or Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last Poly-Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 24-inch o.c. Lap sealed with 1.5-inch heat weld	-60.0
W-46.	Plywood, APA, 19/32", rating 32/16, Grade CDX	One or more layers, any combination, min. 0.5-inch	Prelim. attached	Duro-Tuff, min. 50-mil or Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener and Duro-Last Poly-Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Lap sealed with 1.5-inch heat weld	-67.5
DURO-ROOF LAP SYSTEMS:							
W-47.	Plywood, APA, 19/32", rating 32/16, Grade CDX	(Optional) One or more layers, any combination	Prelim. attached	Duro-Last, min. 40 mil	Duro-Last #14 HD Fastener with Duro-Last 3-inch Metal Plate	Duro-Roof Lap System fastened 6-inch o.c. within 6-inch wide tabs spaced 57-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-52.5
W-48.	Nominal 1 x 6 –inch T&G board decking attached per FBC Section 2322.2.2	One or more layers, any combination, min. 1.5-inch	Prelim. Attached	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with OMG Eyehook Accuseam Plate	Duro-Roof Lap System fastened 6-inch o.c. within 6-inch wide tabs spaced 25-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-97.5

TABLE 8F: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE E-3: NON-INSULATED, MECHANICALLY ATTACHED AND INDUCTION WELDED ROOF COVER					
System No.	Substrate (4.1.2)	Roof Cover			MDP (psf)
		Attachment		Roof Cover (3.1.4)	
		Fastener (4.2.2)	Spacing		
W-49.	Four (4) plies, plywood, APA, 19/32", rating 40/20, Grade CDX	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate or Duro-Bond Plate 1302	18-inch o.c. in rows spaced 24-inch o.c. along wood structural members	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil), Duro-Last EV (min. 50 mil) or or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-30.0 (NO HVHZ)
W-50.	Four (4) plies, plywood, APA, 19/32", rating 40/20, Grade CDX	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate or Duro-Bond Plate 1302	1 per 3 ft^2 (18 x 24 inch staggered grid pattern)	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-30.0 (NO HVHZ)
W-51.	Four (4) plies, plywood, APA, 19/32", rating 40/20, Grade CDX	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate or Duro-Bond Plate 1302	12-inch o.c. in rows spaced 48-inch o.c. along wood structural members	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-52.5

TABLE 8F: WOOD DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE E-3: NON-INSULATED, MECHANICALLY ATTACHED AND INDUCTION WELDED ROOF COVER					
System No.	Substrate (4.1.2)	Roof Cover			MDP (psf)
		Attachment		Roof Cover (3.1.4)	
		Fastener (4.2.2)	Spacing		
W-52.	Four (4) plies, plywood, APA, 19/32", rating 40/20, Grade CDX	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate or Duro-Bond Plate 1302	18-inch o.c. in rows spaced 24-inch o.c. along wood structural members	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-60.0

TABLE 9A: STEEL DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER							
System No.	Deck (4.1.2)	Base Insulation Layer		Top Insulation Layer		Roof Cover (3.1.4)	MDP (psf)
		Type	Attach (3.1.3)	Type	Attach (3.1.3)		
BAREBACK MEMBRANE APPLICATIONS:							
S-1.	22 ga., Type B, Grade 60 steel	Min. 1.5-inch Duro-Guard ISO II-H	M-OSA, 12-inch o.c. (every-other deck flange)	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	M-OSA	BB1-SB IV, BB3-SGSA	-75.0
S-2.	22 ga., Type B, Grade 60 steel	Min. 1.5-inch Duro-Guard ISO II-H	M-OSA, 12-inch o.c. (every-other deck flange)	(Optional) Additional layer(s) base insulation	M-OSA	BB1-SB IV, BB3-SGSA	-82.5
S-3.	22 ga., Type B, Grade 60 steel	Min. 1.5-inch Duro-Guard ISO II-H	M-OSA, 12-inch o.c. (every-other deck flange)	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	M-OSA	BB3-SGSA, BB4-WB II	-75.0
S-4.	22 ga., Type B, Grade 60 steel	Min. 1.5-inch Duro-Guard ISO II-H	M-OSA, 12-inch o.c. (every-other deck flange)	(Optional) Additional layer(s) base insulation	M-OSA	BB3-SGSA, BB4-WB II	-82.5
DURO-FLEECE OR DURO-FLEECE PLUS MEMBRANE APPLICATIONS:							
S-5.	22 ga., Type B, Grade 60 steel	Min. 1.5-inch Duro-Guard ISO II-H	M-OSA, 12-inch o.c. (every-other deck flange)	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	M-OSA	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-75.0
S-6.	22 ga., Type B, Grade 60 steel	Min. 1.5-inch Duro-Guard ISO II-H	M-OSA, 12-inch o.c. (every-other deck flange)	(Optional) Additional layer(s) base insulation	M-OSA	FB3-DF CR-20 (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-82.5

TABLE 9B: STEEL OR STRUCTURAL CONCRE–E - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER								
System No.	Deck (4.1.2)	Base Insulation Layer			Top Insulation Layer		Roof Cover (3.1.4)	MDP (psf)
		Type	Fastener (4.2.2)	Attach (3.1.2)	Type	Attach (3.1.3)		
BAREBACK MEMBRANE APPLICATIONS:								
S-7.	Min. 26 ga., Type R-Panel, Grade 80 steel	Two (2) layers of min. 1-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3 or Duro-Guard ISO III-A	Section 3.1.1 (#15)	1 per 1.8 ft²	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Trufast RA, 6-inch o.c.	BB1-SB IV, BB2-SGSA, BB3-SGSA (Duro-Last, Duro-Last X or Duro-Tuff), BB4-WB II	-30.0 (NO HVHZ)
S-8.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 2-inch ACFoam-II, Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Section 3.1.1	1 per 4.0 ft²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Hot asphalt or Board-Max, CR-20 or Trufast RA	BB1-SB IV, BB3-SGSA or BB4-WB II	-37.5* (NO HVHZ)
S-9.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 2-inch ACFoam-II, Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Section 3.1.1	1 per 4.0 ft²	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	Hot asphalt, OB500 or M-OSA	BB1-SB IV (Duro-Last or Duro-Last X), BB3-SGSA	-37.5* (NO HVHZ)
S-10.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 2-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Section 3.1.1	1 per 4.0 ft²	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	Hot asphalt, OB500 or M-OSA	BB3-SGSA, BB4-WB II	-37.5* (NO HVHZ)
S-11.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3, Duro-Guard ISO III-A or Duro-Guard ISO III-H	Section 3.1.1	1 per 2.0 ft²	Additional layer(s) base insulation followed by min. 0.25-inch DEXcell FA Glass Mat Roof Board	CR-20 or Trufast RA, 6-inch o.c.	BB1-SB IV, BB2-SGSA, BB3-SGSA, BB4-WB II	-37.5* (NO HVHZ)
S-12.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 2-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Section 3.1.1	1 per 2.7 ft²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Hot asphalt or Board-Max, CR-20 or Trufast RA	BB1-SB IV, BB3-SGSA or BB4-WB II	-45.0*
S-13.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 2-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Section 3.1.1	1 per 2.7 ft²	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	Hot asphalt, OB500 or M-OSA	BB1-SB IV (Duro-Last or Duro-Last X), BB3-SGSA	-45.0*
S-14.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 2-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Section 3.1.1	1 per 2.7 ft²	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	Hot asphalt, OB500 or M-OSA	BB3-SGSA, BB4-WB II	-45.0*
S-15.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 2-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Section 3.1.1	1 per 1.3 ft²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Hot asphalt or Board-Max, CR-20 or Trufast RA, 6-inch o.c.	BB1-SB IV, BB3-SGSA or BB4-WB II	-60.0
S-16.	Min. 26 ga., Type R-Panel, Grade 80 steel	Nominal 1.5 pcf flute-fill EPS board	Section 3.1.1 (#15)	1 per 1.17 ft²	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Trufast RA, 6-inch o.c.	BB1-SB IV, BB2-SGSA, BB3-SGSA (Duro-Last, Duro-Last X or Duro-Tuff), BB4-WB II	-67.5

TABLE 9B: STEEL OR STRUCTURAL CONCRE–E - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER								
System No.	Deck (4.1.2)	Base Insulation Layer			Top Insulation Layer		Roof Cover (3.1.4)	MDP (psf)
		Type	Fastener (4.2.2)	Attach (3.1.2)	Type	Attach (3.1.3)		
S-17.	Min. 22 ga., Type B, Grade 33 steel	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3, Duro-Guard ISO III-A or Duro-Guard ISO III-H	Section 3.1.1	1 per 2.0 ft²	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	CR-20 or Trufast RA, 6-inch o.c.	BB1-SB IV, BB2-SGSA, BB3-SGSA, BB4-WB II	-67.5
DURO-FLEECE OR DURO-FLEECE PLUS MEMBRANE APPLICATIONS:								
S-18.	Min. 26 ga., Type R-Panel, Grade 80 steel	Two (2) layers of min. 1-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3, Duro-Guard ISO III-A	Section 3.1.1 (#15)	1 per 1.8 ft²	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Trufast RA, 6-inch o.c.	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-30.0 (NO HVHZ)
S-19.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 2-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Section 3.1.1	1 per 4.0 ft²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Hot asphalt or Board-Max, CR-20 or Trufast RA, 6-inch o.c.	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-37.5* (NO HVHZ)
S-20.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 2-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Section 3.1.1	1 per 4.0 ft²	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	Hot asphalt, OB500 or M-OSA	FB3-DF CR-20 (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-37.5* (NO HVHZ)
S-21.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3, Duro-Guard ISO III-A or Duro-Guard ISO III-H	Section 3.1.1	1 per 2.0 ft²	Additional layer(s) base insulation followed by min. 0.25-inch DEXcell FA Glass Mat Roof Board	Trufast RA, 6-inch o.c.	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-37.5* (NO HVHZ)
S-22.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 2-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Section 3.1.1	1 per 2.7 ft²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Hot asphalt or Board-Max, CR-20 or Trufast RA, 6-inch o.c.	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-45.0*
S-23.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 2-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Section 3.1.1	1 per 2.7 ft²	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	Hot asphalt, OB500 or M-OSA	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-45.0*
S-24.	Min. 22 ga., Type B, Grade 40 steel	Min. 1.5-inch Duro-Guard ISO III-E2, Duro-Guard ISO III-EG, ISO 95+ GL or RESISTA	Section 3.1.1	1 per 4 ft²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Hot asphalt	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-45.0*

TABLE 9B: STEEL OR STRUCTURAL CONCRE–E - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED ROOF COVER								
System No.	Deck (4.1.2)	Base Insulation Layer			Top Insulation Layer		Roof Cover (3.1.4)	MDP (psf)
		Type	Fastener (4.2.2)	Attach (3.1.2)	Type	Attach (3.1.3)		
S-25.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 2-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Section 3.1.1	1 per 1.3 ft²	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Hot asphalt or Board-Max, CR-20 or Trufast RA, 6-inch o.c.	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-60.0
S-26.	Min. 26 ga., Type R-Panel, Grade 80 steel	Nominal 1.5 pcf flute-fill EPS board	Section 3.1.1 (#15)	1 per 1.17 ft²	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Trufast RA, 6-inch o.c.	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-67.5
S-27.	Min. 22 ga., Type B, Grade 33 steel	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3, Duro-Guard ISO III-A or Duro-Guard ISO III-H	Section 3.1.1	1 per 2.0 ft²	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Trufast RA, 6-inch o.c.	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-67.5

TABLE 9C: STEEL OR STRUCTURAL CONCRETE - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE B-1: MECHANICALLY ATTACHED BASE INSULATION, BONDED TOP INSULATION, BONDED MULTI-PLY ROOF COVER										
System No.	Deck (4.1.2)	Base Insulation Layer			Top Insulation Layer		Roof Cover (3.1.4)			MDP (psf)
		Type	Fastener (4.2.2)	Attach (3.1.2)	Type	Attach (3.1.3)	Base Ply	Ply	Cap Ply	
S-28.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A, Duro-Guard ISO II-H or Duro-Guard ISO III-H	Section 3.1.1	1 per 1.8 ft²	Additional layer(s) base insulation followed by min. 0.125-inch SOPRABOARD	DUOTACK 365	SBS-TAF	(Optional) SBS-TAF	FB3-DF CR-20	-52.5
S-29.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	Min. 2.0-inch Duro-Guard ISO II-H	Section 3.1.1	1 per 1.0 ft²	Additional layer(s), min 2-inch base insulation followed by min. 0.25-inch SOPRABOARD	DUOTACK 365, 6-inch o.c.	SBS-TAF	(Optional) SBS-TAF	FB3-DF CR-20	-127.5

TABLE 9D: STEEL OR STRUCTURAL CONCRETE - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER							
System No.	Deck (4.1.2)	Base Insulation Layer (3.1.2, 4.2.2)	Top Insulation Layer			Roof Cover (3.1.4)	MDP (psf)
			Type	Fastener (4.2.2)	Attach (3.1.2)		
DURO-LAST MEMBRANE APPLICATIONS:							
S-30.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25-inch DensDeck or DensDeck Prime	Section 3.1.1	1 per 2.7 ft^2	BB1-SB IV, BB3-SGSA or BB4-WB II	-30.0* (NO HVHZ)
S-31.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. ½-inch DensDeck or DensDeck Prime	Section 3.1.1	1 per 3.2 ft^2	BB1-SB IV, BB3-SGSA or BB4-WB II	-30.0* (NO HVHZ)
S-32.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 5/8-inch DensDeck or DensDeck Prime	Section 3.1.1	1 per 4.0 ft^2	BB1-SB IV, BB3-SGSA or BB4-WB II	-30.0* (NO HVHZ)
S-33.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A	Section 3.1.1	1 per 2.7 ft^2	BB2-SGSA or BB3-SGSA	-37.5* (NO HVHZ)
S-34.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 1.0-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A or ACFoam Recover	Section 3.1.1	1 per 2.0 ft^2	BB4-WB II	-37.5* (NO HVHZ)
S-35.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 1.0-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A	Section 3.1.1	1 per 2.0 ft^2	BB1-SB IV, BB3-SGSA or BB4-WB II	-37.5* (NO HVHZ)
S-36.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Section 3.1.1	1 per 2.7 ft^2	BB1-SB IV, BB3-SGSA or BB4-WB II	-37.5* (NO HVHZ)
S-37.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 1.5-inch Duro-Guard ISO II-H or Duro-Guard ISO III-H	Section 3.1.1	1 per 2.7 ft^2	BB2-SGSA or BB3-SGSA	-45.0*
S-38.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A	Section 3.1.1	1 per 2.0 ft^2	BB1-SB IV, BB3-SGSA or BB4-WB II	-45.0*
S-39.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2-inch Duro-Guard ISO II-A or Duro-Guard ISO III-A	Section 3.1.1	1 per 4.0 ft^2	BB1-SB IV, BB3-SGSA or BB4-WB II	-45.0*
S-40.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	One or more layers, any combination, min. 1.5-inch thick	Min. 0.25-inch Invinsa Roof Board	Section 3.1.1	1 per 2.0 ft^2	BB1-SB IV (Duro-Last or Duro-Last X)	-45.0*
S-41.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25-inch DensDeck or DensDeck Prime	Section 3.1.1	1 per 2.0 ft^2	BB1-SB IV, BB3-SGSA or BB4-WB II	-45.0*

TABLE 9D: STEEL OR STRUCTURAL CONCRETE - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER							
System No.	Deck (4.1.2)	Base Insulation Layer (3.1.2, 4.2.2)	Top Insulation Layer			Roof Cover (3.1.4)	MDP (psf)
			Type	Fastener (4.2.2)	Attach (3.1.2)		
S-42.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.625-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	Section 3.1.1	1 per 5.3 ft^2	BB1-SB IV (Duro-Last or Duro-Last X), BB3-SGSA	-45.0*
S-43.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.625-inch DEXcell FA Glass Mat Roof Board	Section 3.1.1	1 per 5.3 ft^2	BB3-SGSA, BB4-WB II	-45.0*
S-44.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Section 3.1.1	1 per 4.0 ft^2	BB1-SB IV (Duro-Last or Duro-Last X), BB3-SGSA	-45.0*
S-45.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Section 3.1.1	1 per 4.0 ft^2	BB3-SGSA, BB4-WB II	-45.0*
S-46.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Section 3.1.1	1 per 3.2 ft^2	BB1-SB IV (Duro-Last or Duro-Last X), BB3-SGSA	-45.0*
S-47.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Section 3.1.1	1 per 3.2 ft^2	BB3-SGSA, BB4-WB II	-45.0*
S-48.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Section 3.1.1	1 per 2.0 ft^2	BB1-SB IV, BB3-SGSA or BB4-WB II	-45.0*
S-49.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 5/8-inch SECUROCK Gypsum-Fiber Roof Board	Section 3.1.1	1 per 4.0 ft^2	BB1-SB IV, BB3-SGSA or BB4-WB II	-45.0*
S-50.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2-inch Duro-Guard ISO II-A	SFS Dekfast DF-#15-PH3 with Dekfast PLT-H-2-7/8	1 per 2.0 ft^2	BB1-SB IV, BB3-SGSA or BB4-WB II	-60.0
S-51.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	One or more layers, any combination, min. 1.5-inch thick	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Section 3.1.1	1 per 1.3 ft^2	BB1-SB IV, BB3-SGSA or BB4-WB II	-67.5
S-52.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	One or more layers, any combination, min. 1.5-inch thick	Min. 0.25-inch DensDeck Prime	Section 3.1.1 (#15 only)	1 per 1.8 ft^2	BB1-SB IV, BB3-SGSA or BB4-WB II	-67.5
S-53.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25-inch DensDeck	SFS Dekfast DF-#15-PH3 with Dekfast PLT-H-2-7/8	1 per 2.0 ft^2	BB4-WB II	-75.0

TABLE 9D: STEEL OR STRUCTURAL CONCRETE - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER							
System No.	Deck (4.1.2)	Base Insulation Layer (3.1.2, 4.2.2)	Top Insulation Layer			Roof Cover (3.1.4)	MDP (psf)
			Type	Fastener (4.2.2)	Attach (3.1.2)		
S-54.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 15/32-inch APA Rated, Grade B-C plywood	OMG XHD with OMG Flat Bottom Metal Plate (3-inch square)	1 per 2.0 ft²	BB4-WB II	-90.0
S-55.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2-inch Duro-Guard ISO III-A	Section 3.1.1 (#15 only)	1 per 2.0 ft²	BB1-SB IV or BB4-WB II	-90.0
S-56.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 1.5-inch total thickness	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	Trufast #12 DP with Trufast 3" Metal Insulation Plate	1 per 1.0 ft²	BB1-SB IV, BB3-SGSA or BB4-WB II	-97.5
DURO-FLEECE OR DURO-FLEECE PLUS MEMBRANE APPLICATIONS:							
S-57.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25-inch DensDeck Prime	Section 3.1.1	1 per 2.7 ft²	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-30.0* (NO HVHZ)
S-58.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. ½-inch DensDeck or DensDeck Prime	Section 3.1.1	1 per 3.2 ft²	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-30.0* (NO HVHZ)
S-59.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 5/8-inch DensDeck or DensDeck Prime	Section 3.1.1	1 per 4.0 ft²	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-30.0* (NO HVHZ)
S-60.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Section 3.1.1	1 per 2.7 ft²	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-37.5* (NO HVHZ)
S-61.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 1.0-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A	Section 3.1.1	1 per 2.0 ft²	FB1-WB II, FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER)	-37.5* (NO HVHZ)

TABLE 9D: STEEL OR STRUCTURAL CONCRETE - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER							
System No.	Deck (4.1.2)	Base Insulation Layer (3.1.2, 4.2.2)	Top Insulation Layer			Roof Cover (3.1.4)	MDP (psf)
			Type	Fastener (4.2.2)	Attach (3.1.2)		
S-62.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A, Duro-Guard ISO II-H, Duro-Guard ISO III-H, ENRGY 3 or ISO 95+ GL	Section 3.1.1	1 per 2.0 ft^2	FB1-WB II, FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER)	-45.0*
S-63.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.625-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	Section 3.1.1	1 per 5.3 ft^2	FB3-DF CR-20 (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-45.0*
S-64.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.5-inch DEXcell FA Glass Mat Roof Board	Section 3.1.1	1 per 4.0 ft^2	FB3-DF CR-20 (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-45.0*
S-65.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Section 3.1.1	1 per 3.2 ft^2	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-45.0*
S-66.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Section 3.1.1	1 per 2.0 ft^2	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-45.0*
S-67.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 5/8-inch SECUROCK Gypsum-Fiber Roof Board	Section 3.1.1	1 per 4.0 ft^2	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-45.0*
S-68.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.5-inch DensDeck	Section 3.1.1	1 per 2.0 ft^2	FB1-WB II, FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER)	-45.0*
S-69.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A, Duro-Guard ISO III-E2 or ISO 95+ GL	Section 3.1.1	1 per 2.0 ft^2	FB2-DFA, FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER) or FB7-PG1 ECO (SPLATTER)	-45.0*
S-70.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 0.5-inch DensDeck	Section 3.1.1	1 per 2.0 ft^2	FB2-DFA	-45.0*

TABLE 9D: STEEL OR STRUCTURAL CONCRETE - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-1: MECHANICALLY ATTACHED INSULATION, BONDED ROOF COVER							
System No.	Deck (4.1.2)	Base Insulation Layer (3.1.2, 4.2.2)	Top Insulation Layer			Roof Cover (3.1.4)	MDP (psf)
			Type	Fastener (4.2.2)	Attach (3.1.2)		
S-71.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	One or more layers, any combination, min. 1.5-inch thick	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Section 3.1.1	1 per 1.3 ft²	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-67.5
S-72.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	One or more layers, any combination, min. 1.5-inch thick	Min. 0.25-inch DensDeck Prime	Section 3.1.1 (#15 Extra Heavy Duty only)	1 per 1.8 ft²	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-67.5
S-73.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination, min. 1.5-inch thick	Min. 0.25-inch DensDeck Prime	Section 3.1.1	1 per 1.3 ft²	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-67.5
S-74.	Min. 22 ga., Type B, Grade 33 steel or structural concrete	(Optional) One or more layers, any combination	Min. 2-inch Duro-Guard ISO III-A	Section 3.1.1 (#15 only)	1 per 2.0 ft²	FB1-WB II or FB3-DF CR-20 (SPLATTER)	-90.0
S-75.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 1.5-inch total thickness	Min. 0.5-inch SECUROCK Gypsum Fiber Roof Board	Trufast #12 DP with Trufast 3" Metal Insulation Plate	1 per 1.0 ft²	FB3-DF CR-20 (SPLATTER) or FB1-WB II	-97.5
S-76.	Min. 22 ga., Type B, Grade 40 steel	One or more layers, any combination, min. 1.5-inch total thickness	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Section 3.1.1	1 per 1.0 ft²	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-135.0

TABLE 9E: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER						
System No.	Deck (4.1.2)	Insulation Layer (3.1.2, 4.2.2)	Attach		Roof Cover (3.1.4)	MDP (psf)
			Fastener (4.2.2)	Density		
RHINOBOND INDUCTION WELD:						
S-77.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond Plate 1302	1 per 4.0 ft² (2 x 2-ft grid)	Duro-Last (min. 40-mil), Duro-Last X (min. 80 mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded using RHINOBOND Installation Tool	-37.5 (NO HVHZ)
S-78.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond Plate 1302	1 per 6 ft² (24 x 36 inch grid pattern)	Duro-Last (min. 40-mil), Duro-Last X (min. 80 mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded using RHINOBOND Installation Tool	-45.0*

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TABLE 9E: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER						
System No.	Deck (4.1.2)	Insulation Layer (3.1.2, 4.2.2)	Attach		Roof Cover (3.1.4)	MDP (psf)
			Fastener (4.2.2)	Density		
S-79.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond Plate 1302	1 per 2.25 ft^2 (18 x 18 inch grid pattern)	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-45.0
S-80.	Min. 20 ga., Type N, Grade 40 steel	One or more layers DURO-GUARD ISO II-A, DURO-GUARD ISO II-H, DURO-GUARD ISO III-A or DURO-GUARD ISO III-H; top layer min. 1-inch	OMG XHD with Duro-Bond Plate 1302	1 per 4.0 ft^2 (8 parts per 4 x 8 ft board) *Parts spaced 24" o.c. in rows spaced 24" o.c., while maintaining fastener engagement with the top flange of the Type N deck profile. Every-other set of two (2) rows is staggered 8-inches from the previous set.*	Duro-Last (min. 40-mil), Duro-Last X (min. 80 mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded using RHINOBOND Installation Tool	-52.5
S-81.	Min. 18 ga., Type B, Grade 33 steel	One or more layers, any combination, preliminarily attached (3.1.2)	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond Plate 1302	12-inch o.c. in rows spaced 60-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-30.0 (NO HVHZ)
S-82.	Min. 18 ga., Type B, Grade 33 steel	One or more layers, any combination, preliminarily attached (3.1.2)	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond Plate 1302	6-inch o.c. in rows spaced 120-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-45.0
S-83.	Min. 18 ga., Type B, Grade 33 steel	One or more layers, any combination, preliminarily attached (3.1.2)	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond Plate 1302	12-inch o.c. in rows spaced 48-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-45.0
S-84.	Min. 18 ga., Type B, Grade 33 steel	One or more layers, any combination, preliminarily attached (3.1.2)	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond Plate 1302	6-inch o.c. in rows spaced 72-inch o.c.	Duro-Last (min. 40-mil), Duro-Last X (min. 80 mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded using RHINOBOND Installation Tool	-52.5
S-85.	Min. 18 ga., Type B, Grade 33 steel	One or more layers, any combination, preliminarily attached (3.1.2)	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond Plate 1302	6-inch o.c. in rows spaced 96-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-52.5
S-86.	Min. 18 ga., Type B, Grade 33 steel	One or more layers, any combination, preliminarily attached (3.1.2)	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond Plate 1302	6-inch o.c. in rows spaced 48-inch o.c.	Duro-Last (min. 40-mil), Duro-Last X (min. 80 mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded using RHINOBOND Installation Tool	-82.5
S-87.	Min. 18 ga., Type B, Grade 33 steel	One or more layers, any combination, preliminarily attached (3.1.2)	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond Plate 1302	6-inch o.c. in rows spaced 60-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-82.5
S-88.	Min. 18 ga., Type B, Grade 33 steel	One or more layers, any combination, preliminarily attached (3.1.2)	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond Plate 1302	6-inch o.c. in rows spaced 48-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-90.0
ISOWELD INDUCTION WELD:						
S-89.	Min. 22 ga., Type B, Grade 40 steel	One or more layers, any combination, min. 1.5-inch	SFS Dekfast DF-#15-PH3 with *isoweld*® F1-P-6.8-PVC Plate	6 ft^2 per fastener 2 x 3-ft grid, staggered	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using SFS *isoweld*® 3000 stand-up tool	-37.5 (NO HVHZ)

TABLE 9E: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER						
System No.	Deck (4.1.2)	Insulation Layer (3.1.2, 4.2.2)	Attach		Roof Cover (3.1.4)	MDP (psf)
			Fastener (4.2.2)	Density		
S-90.	Min. 22 ga., Type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	SFS Dekfast DF-#12-PH3 or DF-#15-PH3 Fastener with *isoweld*® F1-P-6.8-PVC Plate	6 ft² per fastener 2 x 3-ft grid, staggered	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using SFS *isoweld*® 3000 stand-up tool	-37.5 (NO HVHZ)
S-91.	Min. 22 ga., Type B, Grade 40 steel	One or more layers, any combination, min. 1.5-inch	SFS Dekfast DF-#15-PH3 with *isoweld*® F1-P-6.8-PVC Plate	4 ft² per fastener 2 x 2-ft grid, staggered	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using SFS *isoweld*® 3000 stand-up tool	-52.5
S-92.	Min. 22 ga., Type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	SFS Dekfast DF-#12-PH3 or DF-#15-PH3 Fastener with *isoweld*® F1-P-6.8-PVC Plate	4 ft² per fastener 2 x 2-ft grid, staggered	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using SFS *isoweld*® 3000 stand-up tool	-52.5
S-93.	Min. 22 ga., Type B, Grade 40 steel	One or more layers, any combination, min. 1.5-inch	SFS Dekfast DF-#15-PH3 with *isoweld*® F1-P-6.8-PVC Plate	3 ft² per fastener 1.5 x 2-ft grid, staggered	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using SFS *isoweld*® 3000 stand-up tool	-82.5
S-94.	Min. 22 ga., Type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	SFS Dekfast DF-#12-PH3 or DF-#15-PH3 Fastener with *isoweld*® F1-P-6.8-PVC Plate	3 ft² per fastener 1.5 x 2-ft grid, staggered	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using SFS *isoweld*® 3000 stand-up tool	-82.5
S-95.	Min. 22 ga., Type B, Grade 40 steel	One or more layers, any combination, min. 1.5-inch, preliminarily attached (3.1.2)	SFS Dekfast DF-#15-PH3 with *isoweld*® F1-P-6.8-PVC Plate	12-inch o.c. in rows spaced 60-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using SFS *isoweld*® 3000 stand-up tool	-45.0
S-96.	Min. 22 ga., Type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch, preliminarily attached (3.1.2)	SFS Dekfast DF-#12-PH3 or DF-#15-PH3 Fastener with *isoweld*® F1-P-6.8-PVC Plate	12-inch o.c. in rows spaced 60-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using SFS *isoweld*® 3000 stand-up tool	-45.0
S-97.	Min. 22 ga., Type B, Grade 40 steel	One or more layers, any combination, min. 1.5-inch, preliminarily attached (3.1.2)	SFS Dekfast DF-#15-PH3 with *isoweld*® F1-P-6.8-PVC Plate	6-inch o.c. in rows spaced 60-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using SFS *isoweld*® 3000 stand-up tool	-90.0
S-98.	Min. 22 ga., Type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch, preliminarily attached (3.1.2)	SFS Dekfast DF-#12-PH3 or DF-#15-PH3 Fastener with *isoweld*® F1-P-6.8-PVC Plate	6-inch o.c. in rows spaced 60-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using SFS *isoweld*® 3000 stand-up tool	-90.0
TRUFAST INDUCTION WELD:						
S-99.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	1 per 5.3 ft² (6 parts per 4x8 ft board on a 24x36-inch pattern)	Duro-Last (min. 40 mil), Duro-Last X (min. 50 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-45.0*
S-100.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	1 per 4.0 ft² (8 parts per 4x8 ft board on a 24x24-inch pattern)	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-52.5
S-101.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	1 per 4.0 ft² (8 parts per 4x8 ft board on a 24x24-inch pattern)	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-60.0

TABLE 9E: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER						
System No.	Deck (4.1.2)	Insulation Layer (3.1.2, 4.2.2)	Attach		Roof Cover (3.1.4)	MDP (psf)
			Fastener (4.2.2)	Density		
S-102.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	1 per 3.2 ft^2 (10 parts per 4x8 ft board on a 24x20-inch pattern)	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-60.0
S-103.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	1 per 3.2 ft^2 (10 parts per 4x8 ft board on a 24x20-inch pattern)	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-67.5
S-104.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	1 per 2.7 ft^2 (12 parts per 4x8 ft board per FM LPDS 1-29)	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-67.5
S-105.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	1 per 2.7 ft^2 (12 parts per 4x8 ft board per FM LPDS 1-29)	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-82.5
S-106.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	1 per 2.0 ft^2 (16 parts per 4x8 ft board on a 12x24-inch pattern)	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-90.0
S-107.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	1 per 2.0 ft^2 (16 parts per 4x8 ft board on a 12x24-inch pattern)	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-112.5
S-108.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	1 per 1.8 ft^2 (18 parts per 4x8 ft board on an 18x16-inch pattern)	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-105.0
S-109.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	1 per 1.8 ft^2 (18 parts per 4x8 ft board on an 18x16-inch pattern)	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-120.0
S-110.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	1 per 1.3 ft^2 (24 parts per 4x8 ft board on a 12x16-inch pattern)	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-135.0
S-111.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	1 per 1.3 ft^2 (24 parts per 4x8 ft board on a 12x16-inch pattern)	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-172.5
S-112.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	1 per 1.0 ft^2 (32 parts per 4x8 ft board per FM LPDS 1-29)	Duro-Last (min. 40 mil) Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-142.5

TABLE 9E: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER						
System No.	Deck (4.1.2)	Insulation Layer (3.1.2, 4.2.2)	Attach		Roof Cover (3.1.4)	MDP (psf)
			Fastener (4.2.2)	Density		
S-113.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	1 per 1.0 ft^2 (32 parts per 4x8 ft board per FM LPDS 1-29)	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-217.5
S-114.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch, preliminarily attached	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	12-inch o.c. in rows spaced 60-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-45.0
S-115.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch, preliminarily attached	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	12-inch o.c. in rows spaced 48-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-52.5
S-116.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch, preliminarily attached	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	12-inch o.c. in rows spaced 48-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-60.0
S-117.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	12-inch o.c. in rows spaced 36-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-60.0
S-118.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	12-inch o.c. in rows spaced 36-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-82.5
S-119.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch, preliminarily attached	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	6-inch o.c. in rows spaced 72-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-67.5
S-120.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch, preliminarily attached	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	6-inch o.c. in rows spaced 72-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-75.0
S-121.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch, preliminarily attached	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	6-inch o.c. in rows spaced 60-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-75.0
S-122.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch, preliminarily attached	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	6-inch o.c. in rows spaced 60-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-90.0

TABLE 9E: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER						
System No.	Deck (4.1.2)	Insulation Layer (3.1.2, 4.2.2)	Attach		Roof Cover (3.1.4)	MDP (psf)
			Fastener (4.2.2)	Density		
S-123.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch, preliminarily attached	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	6-inch o.c. in rows spaced 48-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-90.0
S-124.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch, preliminarily attached	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	6-inch o.c. in rows spaced 48-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-112.5
S-125.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	6-inch o.c. in rows spaced 36-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-112.5
S-126.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 2-inch	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Bond PVC IW Plate	6-inch o.c. in rows spaced 36-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-150.0

TABLE 9F: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER							
System No.	Deck (4.1.2)	Insulation (3.1.2, 4.2.2)		Roof Cover (3.1.4)			MDP (psf)
		Type	Attach (3.1.2)	Membrane	Fastener (4.2.2)	Attach	
STANDARD LAP SYSTEMS; DURO-LAST MEMBRANE:							
S-127.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Cleat Plate	Standard Lap System fastened 12-inch o.c. within 5.75-inch wide tabs spaced 120-inch o.c.	-37.5 (NO HVHZ)
S-128.	Min. 18 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate or Duro-Last Cleat Plate	Standard Lap System fastened 9-inch o.c. within 3-inch wide tabs spaced 60-inch o.c.	-45.0
S-129.	Min. 22 ga., Type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last 2.4-inch Barbed Metal Plate	Standard Lap System fastened 6-inch o.c. within 3-inch wide tabs spaced 84-inch o.c.	-60.0
S-130.	Min. 22 ga., Type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Last, min. 40 mil	Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Cleat Plate	Duro-Roof Lap System fastened 6-inch o.c. within 6-inch wide tabs spaced 120-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-67.5

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TABLE 9F: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER							
System No.	Deck (4.1.2)	Insulation (3.1.2, 4.2.2)		Roof Cover (3.1.4)			MDP (psf)
		Type	Attach (3.1.2)	Membrane	Fastener (4.2.2)	Attach	
S-131.	Min. 22 ga., Type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Last, min. 40 mil	Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Cleat Plate	Duro-Roof Lap System fastened 6-inch o.c. within 6-inch wide tabs spaced 57-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-105.0
STANDARD LAP SYSTEMS; DURO-LAST EV MEMBRANE:							
S-132.	Min. 22 ga., Type B, 50 ksi steel	One or more layers, any combination, min. 1-inch	Prelim. attach	Duro-Last EV, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate	Standard Lap System fastened 18-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld.	-30.0 (NO HVHZ)
S-133.	Min. 22 ga., Type B, 50 ksi steel	One or more layers, any combination, min. 1-inch	Prelim. attach	Duro-Last EV, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Cleat Plate	Standard Lap System fastened 12-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld.	-37.5 (NO HVHZ)
S-134.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 1.5-inch	Loose-laid	Duro-Last EV, min. 50-mil	Duro-Last #14 HD Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate	Standard Lap System fastened 12-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld.	-37.5 (NO HVHZ)
S-135.	Min. 22 ga., Type B, 50 ksi steel	One or more layers, any combination, min. 1-inch	Prelim. attach	Duro-Last EV, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate	Standard Lap System fastened 12-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld.	-45.0
S-136.	Min. 22 ga., Type B, Grade 40 steel	One or more layers, any combination, min. 1-inch	Prelim. attach	Duro-Last EV, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld.	-45.0
S-137.	Min. 22 ga., Type B, 50 ksi steel	One or more layers, any combination, min. 1-inch	Prelim. attach	Duro-Last EV, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Cleat Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld.	-75.0
STANDARD LAP SYSTEMS; DURO-LAST X MEMBRANE:							
S-138.	Min. 22 ga., Type B, Grade 40 steel	One or more layers, any combination, min. 1.5-inch total thickness, min. 16-psi top layer	Prelim. attach	Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Cleat Plate	Standard Lap System fastened 12-inch o.c. within 4-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld.	-30.0 (NO HVHZ)
S-139.	Min. 22 ga., Type B, 50 ksi steel	One or more layers, any combination, min. 0.5-inch	Prelim. attach	Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld	-45.0

TABLE 9F: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER							
System No.	Deck (4.1.2)	Insulation (3.1.2, 4.2.2)		Roof Cover (3.1.4)			MDP (psf)
		Type	Attach (3.1.2)	Membrane	Fastener (4.2.2)	Attach	
S-140.	Min. 26 ga., Type R-Panel, Grade 80 steel	Nominal 1.5 pcf flute-fill EPS board followed by one or more layers, any combination, min. 0.5-inch	Loose-laid	Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld	-45.0
S-141.	Min. 22 ga., Type B, 50 ksi steel	One or more layers, any combination, min. 0.5-inch	Prelim. attach	Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener w or Duro-Last #15 Heavy Duty Screw Fastener ith Duro-Last Poly-Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld	-60.0
S-142.	Min. 26 ga., Type R-Panel, Grade 80 steel	Nominal 1.5 pcf flute-fill EPS board followed by one or more layers, any combination, min. 0.5-inch	Loose-laid	Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate	Standard Lap System fastened 12-inch o.c. within 6-inch wide laps spaced 24-inch o.c. Laps sealed with 1.5-inch heat weld	-52.5
S-143.	Min. 22 ga., Type B, 50 ksi steel	One or more layers, any combination, min. 0.5-inch	Prelim. attach	Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld	-67.5
STANDARD LAP SYSTEMS; DURO-TUFF MEMBRANE:							
S-144.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 1.5-inch total thickness, min. 16-psi top layer	Prelim. attach	Duro-Tuff, min. 50 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Cleat Plate	Standard Lap System fastened 12-inch o.c. within 4-inch wide laps spaced 116-inch o.c. Laps sealed with 1.5-inch heat weld.	-45.0
S-145.	Min. 22 ga., Type B, 50 ksi steel	One or more layers, any combination, min. 0.5-inch	Prelim. attach	Duro-Tuff, min. 50 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld	-45.0
S-146.	Min. 26 ga., Type R-Panel, Grade 80 steel	Nominal 1.5 pcf flute-fill EPS board followed by one or more layers, any combination, min. 0.5-inch	Loose-laid	Duro-Tuff, min. 50 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld	-45.0
S-147.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Tuff, min. 50 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate	Standard Lap System fastened 12-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Lap sealed with 1.5-inch heat weld	-45.0
S-148.	Min. 22 ga., Type B, 50 ksi steel	One or more layers, any combination, min. 0.5-inch	Prelim. attach	Duro-Tuff, min. 50 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld	-60.0

TABLE 9F: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER							
System No.	Deck (4.1.2)	Insulation (3.1.2, 4.2.2)		Roof Cover (3.1.4)			MDP (psf)
		Type	Attach (3.1.2)	Membrane	Fastener (4.2.2)	Attach	
S-149.	Min. 26 ga., Type R-Panel, Grade 80 steel	Nominal 1.5 pcf flute-fill EPS board followed by one or more layers, any combination, min. 0.5-inch	Loose-laid	Duro-Tuff, min. 50 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate	Standard Lap System fastened 12-inch o.c. within 6-inch wide laps spaced 24-inch o.c. Laps sealed with 1.5-inch heat weld	-52.5
S-150.	Min. 22 ga., Type B, 50 ksi steel	One or more layers, any combination, min. 0.5-inch	Prelim. attach	Duro-Tuff, min. 50 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld	-67.5
S-151.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 1.5-inch	Loose-laid	Duro-Tuff, min. 50 mil	Duro-Last #14 HD Fastener with Duro-Last Poly-Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 24-inch o.c. Laps sealed with 1.5-inch heat weld	-90.0
DURO-ROOF LAP SYSTEMS:							
S-152.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Cleat Plate	Duro-Roof Lap System fastened 12-inch o.c. within 5.75-inch wide tabs spaced 120-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-45.0
S-153.	Min. 22 ga., Type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last 3-inch Metal Plate	Duro-Roof Lap System fastened 12-inch o.c. within 6-inch wide tabs spaced 57-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-52.5
S-154.	Min. 22 ga., Type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Cleat Plate	Duro-Roof Lap System fastened 12-inch o.c. within 5.75-inch wide tabs spaced 84-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-52.5
S-155.	Min. 22 ga., Type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Cleat Plate	Duro-Roof Lap System fastened 12-inch o.c. within 5.75-inch wide tabs spaced 57-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-67.5
S-156.	Min. 22 ga., Type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Batten Bar	Duro-Roof Lap System fastened 6-inch o.c. within 3-inch wide tabs spaced 60-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-67.5
S-157.	Min. 22 ga., Type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last 3-inch Metal Plate	Duro-Roof Lap System fastened 6-inch o.c. within 6-inch wide tabs spaced 120-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-82.5
S-158.	Min. 22 ga., Type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Cleat Plate	Duro-Roof Lap System fastened 6-inch o.c. within 5.75-inch wide tabs spaced 120-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-82.5
S-159.	Min. 22 ga., Type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Cleat Plate	Duro-Roof Lap System fastened 6-inch o.c. within 5.75-inch wide tabs spaced 84-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-97.5

TABLE 9F: STEEL DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER							
System No.	Deck (4.1.2)	Insulation (3.1.2, 4.2.2)		Roof Cover (3.1.4)			MDP (psf)
		Type	Attach (3.1.2)	Membrane	Fastener (4.2.2)	Attach	
S-160.	Min. 22 ga., Type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Cleat Plate	Duro-Roof Lap System fastened 6-inch o.c. within 5.75-inch wide tabs spaced 57-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-135.0
S-161.	Min. 22 ga., Type B, Grade 80 steel	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with OMG Eyehook Accuseam Plate	Duro-Roof Lap System fastened 6-inch o.c. within 6-inch wide tabs spaced 25-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-142.5

TABLE 9G: STEEL DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE D-2: INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER									
System No.	Deck (4.1.2)	Base Insulation Layer (3.1.2, 4.2.2)	Top Insulation Layer		Base Sheet			Roof Cover (3.1.4)	MDP (psf)
			Type	Attach (3.1.3)	Membrane	Fastener (4.2.2)	Attach		
S-162.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 1.5-inch, loose laid.	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Loose-laid	Elevate SBS Base	Duro-Last #15 Extra Heavy Duty Drill Point Fastener and Duro-Last Cleat Plate	Standard Lap System fastened 12-inch o.c. within 4-inch wide torch-applied side laps.	Duro-Fleece / Trufast RA (SPLATTER)	-22.5 (NO HVHZ)
S-163.	Min. 22 ga., Type B, Grade 33 steel	One or more layers, any combination, min. 1.5-inch, loose laid.	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last 3-inch Metal Plate; 1 per 6.4 ft^2; 5 parts per 4x8 ft board	Elevate SBS Poly Torch Base	Duro-Last #15 Extra Heavy Duty Drill Point Fastener and Duro-Last Cleat Plate	Standard Lap System fastened 12-inch o.c. within 4-inch wide torch-applied side laps.	Duro-Fleece / Trufast RA (SPLATTER)	-60.0

TABLE 10A: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER REFER TO TABLE VB-1 FOR VAPOR BARRIER OPTIONS							
System No.	Deck (4.1.2)	Base Insulation Layer		Top Insulation Layer		Roof Cover (3.1.4)	MDP (psf)
		Type	Attach (3.1.3)	Type	Attach (3.1.3)		
DURO-LAST MEMBRANE APPLICATIONS:							
C-1.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Board-Max	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Board-Max	BB1-SB IV, BB3-SGSA or BB4-WB II	-247.5
C-2.	Structural concrete	Min. 0.75-inch Duro-Guard EPS Type IX	Board-Max	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Board-Max	BB1-SB IV, BB3-SGSA or BB4-WB II	-255.0

TABLE 10A: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER REFER TO TABLE VB-1 FOR VAPOR BARRIER OPTIONS							
System No.	Deck (4.1.2)	Base Insulation Layer		Top Insulation Layer		Roof Cover (3.1.4)	MDP (psf)
		Type	Attach (3.1.3)	Type	Attach (3.1.3)		
C-3.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	BB1-SB IV, BB3-SGSA or BB4-WB II	-247.5
C-4.	Structural concrete	Min. 0.75-inch Duro-Guard EPS Type II, VIII or IX	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	BB1-SB IV, BB3-SGSA or BB4-WB II	-255.0
C-5.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	CR-20	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	CR-20	BB1-SB IV (Duro-Last or Duro-Last X)	-300.0
C-6.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	CR-20	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	CR-20	BB4-WB II	-300.0
C-7.	Structural concrete (ASTM D41 primer)	Min. 1.5-inch Duro-Guard ISO II-A	Hot asphalt	(Optional) Additional layers of base insulation	Hot asphalt	BB1-SB IV, BB3-SGSA or BB4-WB II	-75.0
C-8.	Structural concrete (ASTM D41 primer)	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Hot asphalt	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Hot asphalt	BB1-SB IV, BB3-SGSA or BB4-WB II	-247.5
C-9.	Structural concrete (ASTM D41 primer)	Min. 1.5-inch Duro-Guard ISO II-A	Hot asphalt	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Hot asphalt	BB1-SB IV (Duro-Last or Duro-Last X)	-495.0
C-10.	Structural concrete (ASTM D41 primer)	Min. 1.5-inch Duro-Guard ISO II-A	Hot asphalt	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Hot asphalt	BB4-WB II	-495.0
C-11.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	M-OSA	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	M-OSA	BB1-SB IV (Duro-Last or Duro-Last X)	-382.5
C-12.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	M-OSA	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	M-OSA	BB4-WB II	-382.5
C-13.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	OB500	(Optional) Additional layers of base insulation	OB500	BB1-SB IV, BB3-SGSA or BB4-WB II	-82.5
C-14.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	BB1-SB IV, BB3-SGSA or BB4-WB II	-247.5
C-15.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	OB500	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	OB500	BB1-SB IV (Duro-Last or Duro-Last X)	-382.5
C-16.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	OB500	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	OB500	BB4-WB II	-382.5
C-17.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, Duro-Guard ISO III-A, Duro-Guard ISO III-H	Trufast RA	(Optional) Additional layers of base insulation	Trufast RA	BB1-SB IV, BB3-SGSA or BB4-WB II	-82.5

TABLE 10A: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER REFER TO TABLE VB-1 FOR VAPOR BARRIER OPTIONS							
System No.	Deck (4.1.2)	Base Insulation Layer		Top Insulation Layer		Roof Cover (3.1.4)	MDP (psf)
		Type	Attach (3.1.3)	Type	Attach (3.1.3)		
C-18.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	Trufast RA	(Optional) Additional layers of base insulation	Trufast RA	BB3-SGSA	-180.0
C-19.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-H, Duro-Guard ISO II-A, Duro-Guard ISO III-H	Trufast RA	(Optional) Additional layers of base insulation	Trufast RA	BB3-SGSA	-225.0
C-20.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-H, Duro-Guard ISO II-A, Duro-Guard ISO III-H	Trufast RA	(Optional) Additional layers of base insulation	Trufast RA	BB2-SGSA (Duro-Last or Duro-Last X)	-367.5
C-21.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-H, Duro-Guard ISO II-A, Duro-Guard ISO III-H	Trufast RA	(Optional) Additional layers of base insulation	Trufast RA	BB2-SGSA (Duro-Tuff)	-382.5
C-22.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	Trufast RA	Min. 7/16-inch DEXcell Cement Roof Board	Trufast RA	BB1-SB IV (Duro-Last or Duro-Last X)	-382.5
C-23.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	Trufast RA	Min. 7/16-inch DEXcell Cement Roof Board	Trufast RA	BB4-WB II	-382.5
DURO-FLEECE OR DURO-FLEECE PLUS MEMBRANE APPLICATIONS:							
C-24.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	CR-20	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	CR-20	FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER) or FB7-PG1 ECO (SPLATTER)	-165.0
C-25.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Board-Max	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Board-Max	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-247.5
C-26.	Structural concrete	Min. 0.75-inch Duro-Guard EPS Type IX	Board-Max	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Board-Max	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-255.0
C-27.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-247.5
C-28.	Structural concrete	Min. 0.75-inch Duro-Guard EPS Type II, VIII or IX	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-255.0

TABLE 10A: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER
REFER TO TABLE VB-1 FOR VAPOR BARRIER OPTIONS

System No.	Deck (4.1.2)	Base Insulation Layer		Top Insulation Layer		Roof Cover (3.1.4)	MDP (psf)
		Type	Attach (3.1.3)	Type	Attach (3.1.3)		
C-29.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	CR-20	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	CR-20	FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER) or FB7-PG1 ECO (SPLATTER)	-165.0
C-30.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	CR-20	Min. 7/16-inch DEXcell Cement Roof Board	CR-20	FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER) or FB7-PG1 ECO (SPLATTER)	-300.0
C-31.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	CR-20	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	CR-20	FB3-DF CR-20 (SPLATTER) or FB1-WB II	-300.0
C-32.	Structural concrete (ASTM D41 primer)	Min. 1.5-inch Duro-Guard ISO II-A	Hot asphalt	(Optional) Additional layers of base insulation	Hot asphalt	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-45.0
C-33.	Structural concrete (ASTM D41 primer)	Min. 1.5-inch Duro-Guard ISO II-A	Hot asphalt	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Hot asphalt	FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER) or FB7-PG1 ECO (SPLATTER)	-165.0
C-34.	Structural concrete (ASTM D41 primer)	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Hot asphalt	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Hot asphalt	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-247.5
C-35.	Structural concrete (ASTM D41 primer)	Min. 1.5-inch Duro-Guard ISO II-A	Hot asphalt	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Hot asphalt	FB3-DF CR-20 (SPLATTER) or FB1-WB II	-495.0
C-36.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	M-OSA	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	M-OSA	FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER) or FB7-PG1 ECO (SPLATTER)	-165.0
C-37.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	M-OSA	Min. 7/16-inch DEXcell Cement Roof Board	M-OSA	FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER) or FB7-PG1 ECO (SPLATTER)	-315.0
C-38.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	M-OSA	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	M-OSA	FB3-DF CR-20 (SPLATTER) or FB1-WB II	-382.5
C-39.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, Duro-Guard ISO III-A or Duro-Guard ISO III-H	OB500	(Optional) Additional layers of base insulation	OB500	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-45.0

TABLE 10A: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER
REFER TO TABLE VB-1 FOR VAPOR BARRIER OPTIONS

System No.	Deck (4.1.2)	Base Insulation Layer		Top Insulation Layer		Roof Cover (3.1.4)	MDP (psf)
		Type	Attach (3.1.3)	Type	Attach (3.1.3)		
C-40.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	OB500	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	OB500	FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER) or FB7-PG1 ECO (SPLATTER)	-165.0
C-41.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-247.5
C-42.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	OB500	Min. 7/16-inch DEXcell Cement Roof Board	OB500	FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER) or FB7-PG1 ECO (SPLATTER)	-315.0
C-43.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	OB500	Min. 0.25-inch DEXcell FA Glass Mat Roof Board or min. 7/16-inch DEXcell Cement Roof Board	OB500	FB3-DF CR-20 (SPLATTER) or FB1-WB II	-382.5
C-44.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, ENRGY 3 CGF, Duro-Guard ISO III-H	Trufast RA	Min. 0.5-inch Duro-Guard ISO HD-A or Duro-Guard ISO HD-H	Trufast RA	FB4-TRA (RIBBONS, 4” o.c.) FB5-OB500 (RIBBONS, 4” o.c.), FB6-TRA (RIBBONS, 4” o.c.) or FB7-PG1 ECO (RIBBONS, 4” o.c.)	-165.0
C-45.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, ENRGY 3 CGF, Duro-Guard ISO III-H	Trufast RA	Min. 0.25-inch DensDeck Prime, DEXcell FA Glass Mat Roof Board, SECUROCK Gypsum-Fiber Roof Board or min. 7/16” DEXcell Cement Roof Board	Trufast RA	FB5-OB500 (RIBBONS, 4” o.c.), FB6-TRA (RIBBONS, 4” o.c.) or FB7-PG1 ECO (RIBBONS, 4” o.c.)	-195.0
C-46.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, ENRGY 3 CGF, Duro-Guard ISO III-H	Trufast RA	Min. 0.25-inch DensDeck, DensDeck Prime, DEXcell FA Glass Mat Roof Board, SECUROCK Gypsum-Fiber Roof Board or SECUROCK Ultralight Glass-Mat Roof Board or min. 7/16” DEXcell Cement Roof Board	Trufast RA	FB4-TRA (RIBBONS, 4” o.c.)	-195.0
C-47.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, ENRGY 3 CGF, Duro-Guard ISO III-H	Trufast RA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Trufast RA	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER) or FB7-PG1 ECO (SPLATTER)	-195.0
C-48.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-H	Trufast RA	(Optional) Additional layers of base insulation	Trufast RA	FB5-OB500 (RIBBONS, 4” o.c.), FB6-TRA (RIBBONS, 4” o.c.) or FB7-PG1 ECO (RIBBONS, 4” o.c.)	-202.5
C-49.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	Trufast RA	Min. 7/16-inch DEXcell Cement Roof Board	Trufast RA	FB4-TRA (SPLATTER) or FB6-TRA (SPLATTER)	-315.0
C-50.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, ENRGY 3 CGF, Duro-Guard ISO III-H	Trufast RA	(Optional) Additional layers of base insulation	Trufast RA	FB4-TRA (RIBBONS, 4” o.c.)	-345.0

TABLE 10A: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER REFER TO TABLE VB-1 FOR VAPOR BARRIER OPTIONS							
System No.	Deck (4.1.2)	Base Insulation Layer		Top Insulation Layer		Roof Cover (3.1.4)	MDP (psf)
		Type	Attach (3.1.3)	Type	Attach (3.1.3)		
C-51.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A	Trufast RA	Min. 7/16-inch DEXcell Cement Roof Board	Trufast RA	FB3-DF CR-20 (SPLATTER), FB5-OB500 (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-382.5

TABLE 10B: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED MULTI-PLY ROOF COVER REFER TO TABLE VB-1 FOR VAPOR BARRIER OPTIONS										
System No.	Deck (4.1.2)	Base Insulation Layer		Top Insulation Layer		Primer	Roof Cover (3.1.4)			MDP (psf)
		Type	Attach (3.1.3)	Type	Attach (3.1.3)		Base Ply	Ply	Cap Ply	
C-52.	Structural concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A, Duro-Guard ISO II-H, Duro-Guard ISO III-H, ENRGY 3 or Multi-Max FA-3	CR-20	Min. 0.125-inch SOPRABOARD	CR-20	None	SBS-TAF	(Optional) SBS-TAF	FB3-DF CR-20	-157.5
C-53.	Structural concrete	(Optional) Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, Duro-Guard ISO III-H, Multi-Max FA-3 or Ultra-Max	Trufast RA	Min. 0.25-inch DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board	Trufast RA	Duro-Last VB Primer or ELASTOCOL Stick Zero	SBS-SA1	(Optional) SBS-SA1 or SBS-TAF	FB3-DF CR-20	-195.0

TABLE 10C: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER						
System No.	Deck (4.1.2)	Insulation Layer (3.1.2, 4.2.2)	Attach		Roof Cover (3.1.4)	MDP (psf)
			Fastener (4.2.2)	Density		
RHINOBOND INDUCTION WELD:						
C-54.	Structural concrete	One or more layers, any combination	Duro-Last #14 HD with Duro-Bond Plate 1302	1 per 2.7 ft² (12 parts per 4 x 8 ft board)	Duro-Last (min. 40-mil), Duro-Last X (min. 80 mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded using RHINOBOND Installation Tool	-52.5
C-55.	Structural concrete	One or more layers, any combination, preliminarily attached (3.1.2)	Duro-Last #14 HD with Duro-Bond Plate 1302	12-inch o.c. in rows spaced 60-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-37.5 (NO HVHZ)
C-56.	Structural concrete	One or more layers, any combination, preliminarily attached (3.1.2)	Duro-Last #14 HD with Duro-Bond Plate 1302	12-inch o.c. in rows spaced 48-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-37.5 (NO HVHZ)

TABLE 10C: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER						
System No.	Deck (4.1.2)	Insulation Layer (3.1.2, 4.2.2)	Attach		Roof Cover (3.1.4)	MDP (psf)
			Fastener (4.2.2)	Density		
C-57.	Structural concrete	One or more layers, any combination, preliminarily attached (3.1.2)	Duro-Last #14 HD with Duro-Bond Plate 1302	6-inch o.c. in rows spaced 60-inch o.c.	Duro-Last (min. 40-mil), Duro-Last X (min. 80 mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded using RHINOBOND Installation Tool	-45.0
C-58.	Structural concrete	One or more layers, any combination, preliminarily attached (3.1.2)	Duro-Last #14 HD with Duro-Bond Plate 1302	6-inch o.c. in rows spaced 48-inch o.c.	Duro-Last (min. 40-mil), Duro-Last X (min. 80 mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded using RHINOBOND Installation Tool	-52.5
***ISOWELD* INDUCTION WELD:**						
C-59.	Structural concrete	One or more layers, any combination, min. 1.5-inch	SFS Dekfast DF-#14-PH3 or DF-#15-PH3 with *isoweld*® F1-P-6.8-PVC Plate	6 ft² per fastener 2 x 3-ft grid, staggered	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using SFS *isoweld*® 3000 stand-up tool	-37.5 (NO HVHZ)
C-60.	Structural concrete	One or more layers, any combination, min. 1.5-inch	SFS Dekfast DF-#14-PH3 or DF-#15-PH3 with *isoweld*® F1-P-6.8-PVC Plate	4 ft² per fastener 2 x 2-ft grid, staggered	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using SFS *isoweld*® 3000 stand-up tool	-52.5
C-61.	Structural concrete	One or more layers, any combination, min. 1.5-inch	SFS Dekfast DF-#14-PH3 or DF-#15-PH3 with *isoweld*® F1-P-6.8-PVC Plate	3 ft² per fastener 1.5 x 2-ft grid, staggered	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using SFS *isoweld*® 3000 stand-up tool	-82.5
C-62.	Structural concrete	One or more layers, any combination, min. 1.5-inch, preliminarily attached (3.1.2)	SFS Dekfast DF-#14-PH3 or DF-#15-PH3 with *isoweld*® F1-P-6.8-PVC Plate	12-inch o.c. in rows spaced 60-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using SFS *isoweld*® 3000 stand-up tool	-45.0
C-63.	Structural concrete	One or more layers, any combination, min. 1.5-inch, preliminarily attached (3.1.2)	SFS Dekfast DF-#14-PH3 or DF-#15-PH3 with *isoweld*® F1-P-6.8-PVC Plate	6-inch o.c. in rows spaced 60-inch o.c.	Duro-Last (min. 40 mil) or Duro-Last X (min. 80 mil) induction welded using SFS *isoweld*® 3000 stand-up tool	-90.0
TRUFAST INDUCTION WELD:						
C-64.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	1 per 5.3 ft² (6 parts per 4x8 ft board on a 24x36-inch pattern)	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-45.0*
C-65.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	1 per 4.0 ft² (8 parts per 4x8 ft board on a 24x24-inch pattern)	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-52.5
C-66.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	1 per 4.0 ft² (8 parts per 4x8 ft board on a 24x24-inch pattern)	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-60.0

TABLE 10C: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER						
System No.	Deck (4.1.2)	Insulation Layer (3.1.2, 4.2.2)	Attach		Roof Cover (3.1.4)	MDP (psf)
			Fastener (4.2.2)	Density		
C-67.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	1 per 3.2 ft^2 (10 parts per 4x8 ft board on a 24x20-inch pattern)	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-60.0
C-68.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	1 per 3.2 ft^2 (10 parts per 4x8 ft board on a 24x20-inch pattern)	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-67.5
C-69.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	1 per 2.7 ft^2 (12 parts per 4x8 ft board per FM LPDS 1-29)	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-67.5
C-70.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	1 per 2.7 ft^2 (12 parts per 4x8 ft board per FM LPDS 1-29)	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-82.5
C-71.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	1 per 2.0 ft^2 (16 parts per 4x8 ft board on a 12x24-inch pattern)	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-90.0
C-72.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	1 per 2.0 ft^2 (16 parts per 4x8 ft board on a 12x24-inch pattern)	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-112.5
C-73.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	1 per 1.8 ft^2 (18 parts per 4x8 ft board on an 18x16-inch pattern)	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-105.0
C-74.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	1 per 1.8 ft^2 (18 parts per 4x8 ft board on an 18x16-inch pattern)	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-120.0
C-75.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	1 per 1.3 ft^2 (24 parts per 4x8 ft board on a 12x16-inch pattern)	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-135.0
C-76.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	1 per 1.3 ft^2 (24 parts per 4x8 ft board on a 12x16-inch pattern)	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-172.5

TABLE 10C: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER						
System No.	Deck (4.1.2)	Insulation Layer (3.1.2, 4.2.2)	Attach		Roof Cover (3.1.4)	MDP (psf)
			Fastener (4.2.2)	Density		
C-77.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	1 per 1.0 ft^2 (32 parts per 4x8 ft board per FM LPDS 1-29)	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-142.5
C-78.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	1 per 1.0 ft^2 (32 parts per 4x8 ft board per FM LPDS 1-29)	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-217.5
C-79.	Structural concrete	One or more layers, any combination, min. 2-inch, preliminarily attached	Trufast #14 HD with Duro-Bond PVC IW Plate	12-inch o.c. in rows spaced 60-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets	-45.0
C-80.	Structural concrete	One or more layers, any combination, min. 2-inch, preliminarily attached	Trufast #14 HD with Duro-Bond PVC IW Plate	12-inch o.c. in rows spaced 48-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-52.5
C-81.	Structural concrete	One or more layers, any combination, min. 2-inch, preliminarily attached	Trufast #14 HD with Duro-Bond PVC IW Plate	12-inch o.c. in rows spaced 48-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-60.0
C-82.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	12-inch o.c. in rows spaced 36-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-60.0
C-83.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	12-inch o.c. in rows spaced 36-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-82.5
C-84.	Structural concrete	One or more layers, any combination, min. 2-inch, preliminarily attached	Trufast #14 HD with Duro-Bond PVC IW Plate	6-inch o.c. in rows spaced 72-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-67.5
C-85.	Structural concrete	One or more layers, any combination, min. 2-inch, preliminarily attached	Trufast #14 HD with Duro-Bond PVC IW Plate	6-inch o.c. in rows spaced 72-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-75.0
C-86.	Structural concrete	One or more layers, any combination, min. 2-inch, preliminarily attached	Trufast #14 HD with Duro-Bond PVC IW Plate	6-inch o.c. in rows spaced 60-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-75.0

TABLE 10C: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE C-2: MECHANICALLY ATTACHED INSULATION, INDUCTION WELDED ROOF COVER						
System No.	Deck (4.1.2)	Insulation Layer (3.1.2, 4.2.2)	Attach		Roof Cover (3.1.4)	MDP (psf)
			Fastener (4.2.2)	Density		
C-87.	Structural concrete	One or more layers, any combination, min. 2-inch, preliminarily attached	Trufast #14 HD with Duro-Bond PVC IW Plate	6-inch o.c. in rows spaced 60-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-90.0
C-88.	Structural concrete	One or more layers, any combination, min. 2-inch, preliminarily attached	Trufast #14 HD with Duro-Bond PVC IW Plate	6-inch o.c. in rows spaced 48-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-90.0
C-89.	Structural concrete	One or more layers, any combination, min. 2-inch, preliminarily attached	Trufast #14 HD with Duro-Bond PVC IW Plate	6-inch o.c. in rows spaced 48-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-112.5
C-90.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	6-inch o.c. in rows spaced 36-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-112.5
C-91.	Structural concrete	One or more layers, any combination, min. 2-inch	Trufast #14 HD with Duro-Bond PVC IW Plate	6-inch o.c. in rows spaced 36-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-150.0

TABLE 10D: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER							
System No.	Deck (4.1.2)	Insulation (3.1.2, 4.2.2)		Roof Cover			MDP (psf)
		Type	Attach (3.1.2)	Membrane	Fastener (4.2.2)	Attach	
STANDARD LAP SYSTEMS, DURO-LAST MEMBRANE:							
C-92.	Structural concrete	(Optional) One or more layers, any combination	Prelim. attached	Duro-Last, min. 40 mil	Duro-Last #14 HD Fastener with Duro-Last Cleat Plate	Standard Lap System fastened 9-inch o.c. within 3-inch wide tabs spaced 60-inch o.c.	-37.5 (NO HVHZ)
C-93.	Structural concrete	(Optional) One or more layers, any combination	Prelim. attached	Duro-Last, min. 40 mil	Duro-Last Concrete Screws or Duro-Last Fluted Concrete Nail with Duro-Last 2.4-inch Barbed Metal Plate	Standard Lap System fastened 6-inch o.c. within 3-inch wide tabs spaced 84-inch o.c.	-60.0
STANDARD LAP SYSTEMS, DURO-LAST EV MEMBRANE:							
C-94.	Min. 3,000 psi structural concrete	One or more layers, any combination, min. 1-inch	Prelim. attach	Duro-Last EV, min. 50-mil	Duro-Last Concrete Screw with Duro-Last Poly-Plate	Standard Lap System fastened 12-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld.	-45.0
C-95.	Min. 3,000 psi structural concrete	One or more layers, any combination, min. 1-inch	Prelim. attach	Duro-Last EV, min. 50-mil	Duro-Last Concrete Screw with Duro-Last Cleat Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld.	-75.0

TABLE 10D: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER							
System No.	Deck (4.1.2)	Insulation (3.1.2, 4.2.2)		Roof Cover			MDP (psf)
		Type	Attach (3.1.2)	Membrane	Fastener (4.2.2)	Attach	
STANDARD LAP SYSTEMS, DURO-TUFF OR DURO-LAST X MEMBRANE:							
C-96.	Min. 3,000 psi structural concrete	One or more layers, any combination, min. 0.5-inch	Prelim. attach	Duro-Tuff, min. 50 mil or Duro-Last X, min. 50-mil	Duro-Last Concrete Screw with Duro-Last Poly-Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld	-45.0
C-97.	Min. 3,000 psi structural concrete	One or more layers, any combination, min. 0.5-inch	Prelim. attach	Duro-Tuff, min. 50 mil or Duro-Last X, min. 50-mil	Duro-Last Concrete Screw with Duro-Last Poly-Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld	-67.5
DURO-ROOF LAP SYSTEMS:							
C-98.	Structural concrete	(Optional) One or more layers, any combination	Prelim. attached	Duro-Last, min. 60 mil	Duro-Last #14 HD Fastener with Duro-Last Cleat Plate	Duro-Roof Lap System fastened 6-inch o.c. within 6-inch wide tabs spaced 120-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-37.5 (NO HVHZ)
C-99.	Structural concrete	(Optional) One or more layers, any combination	Prelim. attached	Duro-Last, min. 40 mil	Duro-Last Concrete Screws or Duro-Last Fluted Concrete Nail with Duro-Last 3-inch Metal Plate	Duro-Roof Lap System fastened 12-inch o.c. within 6-inch wide tabs spaced 57-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-52.5
C-100.	Structural concrete	(Optional) One or more layers, any combination	Prelim. attached	Duro-Last, min. 40 mil	Duro-Last Concrete Screws or Duro-Last Fluted Concrete Nail with Duro-Last Batten Bar	Duro-Roof Lap System fastened 6-inch o.c. within 3-inch wide tabs spaced 60-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-67.5
C-101.	Structural concrete	(Optional) One or more layers, any combination	Prelim. attached	Duro-Last, min. 40 mil,	Duro-Last Concrete Screws or Duro-Last Fluted Concrete Nail with Duro-Last 3-inch Metal Plate	Duro-Roof Lap System fastened 6-inch o.c. within 6-inch wide tabs spaced 120-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-82.5
C-102.	Structural concrete	(Optional) One or more layers, any combination	Prelim. attached	Duro-Last, min. 40 mil	Duro-Last Concrete Screws or Duro-Last Fluted Concrete Nail with OMG Eyehook Accuseam Plate	Duro-Roof Lap System fastened 6-inch o.c. within 6-inch wide tabs spaced 25-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal.	-142.5

TABLE 10E: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER					
System No.	Deck (4.1.2)	Primer	Vapor Barrier	Roof Cover (3.1.4)	MDP (psf)
C-103.	Structural concrete	None	Duro-Last Vapor Barrier, self-adhering	FB3-DF CR-20 (SPLATTER)	-502.5
C-104.	Structural concrete	ASTM D41	Duro-Last Torch Down Vapor Barrier, torch-applied	FB3-DF CR-20 (SPLATTER)	-502.5
C-105.	Structural concrete	None	None	FB1-WB II	-673.0
C-106.	Structural concrete	None	None	FB3-DF CR-20 (SPLATTER)	-1,025.0

TABLE 11A: LIGHTWEIGHT CONCRETE OVER STEEL DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER								
System No.	Deck (4.1.2)	Lightweight Concrete (3.1.2)	Base Insulation Layer		Coverboard		Roof Cover (3.1.4)	MDP (psf)
			Type	Attach (3.1.3)	Type	Attach (3.1.3)		
PRE-EXISTENT CELLULAR LWIC:								
BAREBACK MEMBRANE APPLICATIONS:								
LWC-1.	Min. 22 ga., Type BV steel	Min. 200 psi, min. 2-inch thick cellular lightweight insulating concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A	CR-20	(Optional) Additional layers of base insulation	CR-20	BB1-SB IV, BB3-SGSA or BB4-WB II	-45.0
DURO-FLEECE AND DURO-FLEECE PLUS MEMBRANE APPLICATIONS:								
LWC-2.	Min. 22 ga., Type BV steel	Min. 200 psi, min. 2-inch thick cellular lightweight insulating concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A	CR-20	(Optional) Additional layers of base insulation	CR-20	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-45.0

TABLE 11B: LIGHTWEIGHT CONCRETE OVER STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER								
System No.	Deck (4.1.2)	Lightweight Concrete (3.1.2)	Base Insulation Layer		Coverboard		Roof Cover (3.1.4)	MDP (psf)
			Type	Attach (3.1.3)	Type	Attach (3.1.3)		
PRE-EXISTENT CELLULAR LWIC:								
BAREBACK MEMBRANE APPLICATIONS:								
LWC-3.	Structural concrete	Min. 200 psi, min. 2-inch thick cellular lightweight insulating concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A	CR-20	(Optional) Additional layers of base insulation	CR-20	BB1-SB IV, BB3-SGSA or BB4-WB II	-45.0
DURO-FLEECE AND DURO-FLEECE PLUS MEMBRANE APPLICATIONS:								
LWC-4.	Structural concrete	Min. 200 psi, min. 2-inch thick cellular lightweight insulating concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A	CR-20	(Optional) Additional layers of base insulation	CR-20	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER) or FB1-WB II	-45.0
CELCORE:								
BAREBACK MEMBRANE APPLICATIONS:								
LWC-5.	Structural concrete	Min. 200 psi, min. 2-inch thick Celcore Cellular Concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A	CR-20	(Optional) Additional layers of base insulation	CR-20	BB1-SB IV, BB3-SGSA, BB4-WB II	-82.5
LWC-6.	Structural concrete	Min. 200 psi, min. 2-inch thick Celcore Cellular Concrete	Min. 1.5-inch Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	BB1-SB IV, BB3-SGSA or BB4-WB II	-222.5

TABLE 11B: LIGHTWEIGHT CONCRETE OVER STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER								
System No.	Deck (4.1.2)	Lightweight Concrete (3.1.2)	Base Insulation Layer		Coverboard		Roof Cover (3.1.4)	MDP (psf)
			Type	Attach (3.1.3)	Type	Attach (3.1.3)		
DURO-FLEECE AND DURO-FLEECE PLUS MEMBRANE APPLICATIONS:								
LWC-7.	Structural concrete	Min. 200 psi, min. 2-inch thick Celcore Cellular Concrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	FB3-DF CR-20 (SPLATTER) or FB1-WB II	-222.5
ELASTIZELL:								
BAREBACK MEMBRANE APPLICATIONS:								
LWC-8.	Structural concrete	Min. 200 psi, min. 2-inch thick Elastizell	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A	CR-20	(Optional) Additional layers of base insulation	CR-20	BB1-SB IV, BB3-SGSA or BB4-WB II	-82.5
LWC-9.	Structural concrete	Min. 200 psi, min. 2-inch thick Elastizell	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	BB1-SB IV, BB3-SGSA or BB4-WB II	-180.0
DURO-FLEECE AND DURO-FLEECE PLUS MEMBRANE APPLICATIONS:								
LWC-10.	Structural concrete	Min. 200 psi, min. 2-inch thick Elastizell	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER) or FB1-WB II	-180.0
MEARLCRETE:								
BAREBACK MEMBRANE APPLICATIONS:								
LWC-11.	Structural concrete	Min. 200 psi, min. 2-inch thick Mearlcrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A	CR-20	(Optional) Additional layers of base insulation	CR-20	BB1-SB IV, BB3-SGSA or BB4-WB II	-82.5
LWC-12.	Structural concrete	Min. 200 psi, min. 2-inch thick Mearlcrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	BB1-SB IV, BB3-SGSA or BB4-WB II	-240.0
DURO-FLEECE AND DURO-FLEECE PLUS MEMBRANE APPLICATIONS:								
LWC-13.	Structural concrete	Min. 200 psi, min. 2-inch thick Mearlcrete	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-240.0

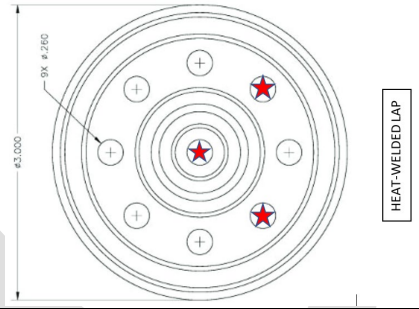
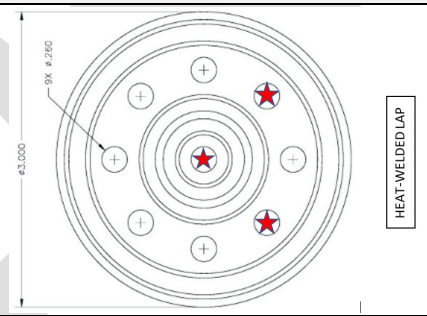
TABLE 11C: LIGHTWEIGHT CONCRETE OVER STEEL DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE E-1: MECHANICALLY ATTACHED ROOF COVER							
System No.	Deck (4.1.2)	Lightweight Concrete (3.1.2)	Roof Cover				MDP (psf)
			Membrane	Fastener (4.2.2)		Attach	
PRE-EXISTENT CELLULAR LWIC:							
LWC-14.	Min. 26 ga., Type HVF, Grade 80 steel; 5 ft span; 5/8" puddle weld with weld-washer at each flute.	Min. 330 psi, min. 2-inch thick pre-existent cellular lightweight insulating concrete	Duro-Tuff, min. 50 mil or Duro-Last X, min. 50 mil	Trufast Versa-Fast Metal Plate with minimum three (3) min. 2¼" long Trufast Versa-Fast Fastener installed forming a triangle pattern with the center-fastener as the apex to the triangle base, which runs parallel to the machine direction of the roll, and closest to the heat-welded lap.		Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld.	-30.0 (NO HVHZ)
	Note:	**Field withdrawal resistance testing (4.2.2) shall yield minimum 285 lbf for the 3-fastener-per-plate configuration. Additional Trufast Versa-Fast Fastener within each Versa-Fast Plate may be utilized to produce withdrawal resistance.*					
LWC-15.	Min. 26 ga., Type HVF, Grade 80 steel; 5 ft span; 5/8" puddle weld with weld-washer at each flute.	Min. 480 psi, min. 2-inch thick pre-existent cellular lightweight insulating concrete	Duro-Tuff, min. 50 mil or Duro-Last X, min. 50 mil	Trufast Versa-Fast Metal Plate with minimum three (3) min. 2¼" long Trufast Versa-Fast Fastener installed forming a triangle pattern with the center-fastener as the apex to the triangle base, which runs parallel to the machine direction of the roll, and closest to the heat-welded lap.		Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld.	-37.5 (NO HVHZ)
	Note:	**Field withdrawal resistance testing (4.2.2) shall yield minimum 169 lbf for the 3-fastener-per-plate configuration. Additional Trufast Versa-Fast Fastener within each Versa-Fast Plate may be utilized to produce withdrawal resistance.*					

TABLE 11D: LIGHTWEIGHT CONCRETE OVER STEEL DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE E-2: MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER							
System No.	Deck (4.1.2)	Lightweight Concrete (3.1.2)	Base Sheet			Roof Cover (3.1.4)	MDP (psf)
			Type	Fastener (4.2.2)	Attach		
ELASTIZELL:							
LWC-16.	Min. 22 ga., Type BV, Grade 33 steel at max. 7 ft spans	Min. 320 psi, min. 2-inch thick Elastizell cellular lightweight concrete cast with Zell Fibers in the mix.	CertainTeed Flexiglas Base Sheet, GAFGLAS #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet	Trufast FM-90	7.5-inch o.c. at the 3-inch laps and 7.5-inch o.c. in one staggered row in the center of the sheet	FB3-DF CR-20 (SPLATTER)	-22.5 (NO HVHZ)
LWC-17.	Min. 22 ga., Type BV, Grade 33 steel at max. 7 ft spans	Min. 380 psi, min. 2-inch thick Elastizell cellular lightweight concrete cast with Zell Fibers in the mix.	CertainTeed Flexiglas Base Sheet, GAFGLAS #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, JM PermaPly 28	Trufast Twin-Loc Nails (min. 1.8-in)	7.5-inch o.c. at the 3-inch laps and 7.5-inch o.c. in one staggered row in the center of the sheet	FB3-DF CR-20 (SPLATTER)	-37.5 (NO HVHZ)
LWC-18.	Min. 22 ga., Type BV, Grade 33 steel at max. 7 ft spans	Min. 350 psi, min. 2-inch thick Elastizell cellular lightweight concrete cast with Zell Fibers in the mix.	CertainTeed Flexiglas Base Sheet, GAFGLAS #75 Base Sheet, GAFGLAS Stratavent Nailable Venting Base Sheet, JM PermaPly 28	Trufast Twin-Loc Nails (min. 1.8-in)	7.5-inch o.c. at the 3-inch laps and 7.5-inch o.c. in two, equally spaced, staggered row in the center of the sheet	FB3-DF CR-20 (SPLATTER)	-67.5

TABLE 11E: LIGHTWEIGHT CONCRETE OVER STEEL DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER				
System No.	Deck (4.1.2)	Lightweight Concrete (3.1.2)	Roof Cover (3.1.4)	MDP (psf)
CELCORE:				
LWC-19.	Min. 22 ga., Type BV, Grade 33 steel deck at max. 4 ft spans	Min. 350 psi, min. 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture, with optional 1-inch thick, 1.0 pcf EPS holey board and surfacing of Celcore PVA Curing Compound.	FB2-DFA	-37.5 (NO HVHZ)
LWC-20.	Min. 22 ga., Type BV, Grade 33 steel deck at max. 5 ft spans	Min. 343 psi, 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture, with optional 1-inch thick, 1.0 pcf EPS holey board and surfacing of Celcore PVA Curing Compound over a min. 1/8-inch slurry coat.	FB3-DF CR-20 (SPLATTER)	-45.0
LWC-21.	Min. 22 ga., Type BV, Grade 33 steel deck at max. 6 ft spans	Min. 350 psi, min. 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture, with optional 1-inch thick, 1.0 pcf EPS holey board and surfacing of Celcore PVA Curing Compound.	FB1-WB II	-60.0
ELASTIZELL:				
LWC-22.	Min. 22 ga., Type BV, Grade 33 steel at max. 7 ft spans	Min. 350 psi, min. 2-inch thick Elastizell cellular lightweight concrete cast with Zell Fibers in the mix.	FB3-DF CR-20 (SPLATTER)	-52.5

TABLE 11F: LIGHTWEIGHT CONCRETE OVER STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF) SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER				
System No.	**Deck (4.1.2)**	**Lightweight Concrete (3.1.2)**	**Roof Cover (3.1.4)**	**MDP (psf)**
PRE-EXISTENT CELLULAR LWIC:				
LWC-23.	Structural concrete	Min. 440 psi, min. 2-inch thick pre-existent cellular lightweight concrete. No EPS holey board. *To qualify the LWIC under this assembly, an OMG CR Assembled Base Sheet Fastener (1.7") shall achieve an average withdrawal of 128 lbf when tested per 4.2.3.*	BB1-SB IV	-407.5
LWC-24.	Structural concrete	Min. 440 psi, min. 2-inch thick pre-existent cellular lightweight concrete. No EPS holey board. *To qualify the LWIC under this assembly, an OMG CR Assembled Base Sheet Fastener (1.7") shall achieve an average withdrawal of 128 lbf when tested per 4.2.3.*	FB3-DF CR-20 at 5 lbs/square.	-477.5
LWC-25.	Structural concrete	Min. 440 psi, min. 2-inch thick pre-existent cellular lightweight concrete. No EPS holey board. *To qualify the LWIC under this assembly, an OMG CR Assembled Base Sheet Fastener (1.7") shall achieve an average withdrawal of 128 lbf when tested per 4.2.3.*	BB4-WB II	-502.5
CELCORE:				
LWC-26.	Structural concrete	Min. 350 psi, min. 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture, with optional 1-inch thick, 1.0 pcf EPS holey board and surfacing of Celcore PVA Curing Compound.	FB1-WB II	-82.5
LWC-27.	Structural concrete	Min. 350 psi, min. 2-inch thick Celcore MF Cellular Concrete with Celcore HS Rheology Modifying Admixture, with optional 1-inch thick, 1.0 pcf EPS holey board and surfacing of Celcore PVA Curing Compound.	FB2-DFA at 4-inch o.c.	-232.5
CONCRECEL:				
LWC-28.	Structural concrete	Min. 440 psi, min. 2-inch thick Concrecel Lightweight Insulating Concrete. No EPS holey board.	BB4-WB II	-372.5
LWC-29.	Structural concrete	Min. 440 psi, min. 2-inch thick Concrecel Lightweight Insulating Concrete. No EPS holey board.	BB1-SB IV	-490.0
LWC-30.	Structural concrete	Min. 440 psi, min. 2-inch thick Concrecel Lightweight Insulating Concrete. No EPS holey board.	FB3-DF CR-20 at 5 lbs/square.	-492.5
LWC-31.	Structural concrete	Min. 440 psi, min. 2-inch thick Concrecel Lightweight Insulating Concrete. No EPS holey board.	FB1-WB II	-502.5
ELASTIZELL:				
LWC-32.	Structural concrete	Min. 310 psi, min. 2-inch thick Elastizell Lightweight Insulating Concrete. No EPS holey board.	BB4-WB II	-412.5
LWC-33.	Structural concrete	Min. 310 psi, min. 2-inch thick Elastizell Lightweight Insulating Concrete. No EPS holey board.	FB3-DF CR-20 at 5 lbs/square.	-462.5
LWC-34.	Structural concrete	Min. 310 psi, min. 2-inch thick Elastizell Lightweight Insulating Concrete. No EPS holey board.	BB1-SB IV	-492.5
LWC-35.	Structural concrete	Min. 310 psi, min. 2-inch thick Elastizell Lightweight Insulating Concrete. No EPS holey board.	FB1-WB II	-502.5

TABLE 12A: CEMENTITIOUS WOOD FIBER DECKS - REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED MULTI-PLY ROOF COVER									
System No.	Deck (4.1.2, 4.2.2)	Base Insulation Layer		Top Insulation Layer		Roof Cover (3.1.4)			MDP (psf)
		Type	Attach (3.1.3)	Type	Attach (3.1.3)	Base Ply	Ply	Cap Ply	
CWF-1.	Min. 3-inch Tectum I	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, Duro-Guard ISO III-A, Duro-Guard ISO III-H	Trufast RA, 6-inch o.c.	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	Trufast RA, 6-inch o.c.	Elevate SBS Poly Torch Base	None	FB4-TRA (SPLATTER)	-60.0
CWF-2.	Min. 2.5-inch Tectum Plank	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A, Duro-Guard ISO II-H or Duro-Guard ISO III-H	DUOTACK 365, 4-inch o.c.	Min. 0.25-inch DEXcell FA Glass Mat Roof Board	DUOTACK 365	SBS-TAF	(Optional) SBS-TAF	FB3-DF CR-20	-163.0

TABLE 12B: CEMENTITIOUS WOOD FIBER DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER							
System No.	Deck (4.1.2)	Insulation		Roof Cover			MDP (psf)
		Type	Attach (3.1.2)	Membrane	Fastener (4.2.2)	Attach	
CWF-3.	Min. 5-inch Tectum III-W	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board, DensDeck Prime, or min. 1-inch Duro-Guard EPS FGF, Duro-Guard ISO II-A, Duro-Guard ISO II-H	Loose laid	Duro-Last, min. 40-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Poly-Plateor Duro-Last Cleat Plate	Standard Lap System fastened 12-inch o.c. within 3-inch wide laps spaced 60-inch o.c.	-37.5 (NO HVHZ)
CWF-4.	Min. 3-inch Tectum I	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Last, min. 40-mil	Duro-Last Auger Fastener (min. 2-inch embedment) with 2” Auger Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide tabs spaced 57-inch o.c.	-45.0
CWF-5.	Min. 3-inch Tectum I	One or more layers, any combination, min. 1.5-inch	Prelim. attach	Duro-Last, min. 40-mil	Duro-Last Auger Fastener (min. 2-inch embedment) with 2” Auger Plate	Duro-Roof Lap System fastened 6-inch o.c. within 6-inch wide tabs spaced 57-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal	-52.5

TABLE 12C: CEMENTITIOUS WOOD FIBER DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE E-1: NON-INSULATED, MECHANICALLY ATTACHED ROOF COVER						
System No.	Deck (4.1.2)	Roof Cover				MDP (psf)
		Membrane	Fastener (4.2.2)		Attach	
			Type	ENERFOAM Installation		
CWF-6.	Min. 2-inch Tectum I	Duro-Last, min. 40-mil	Duro-Last Auger Fastener (min. 2-inch embedment)	N/A	Standard Lap System fastened 6-inch o.c. at 3-inch wide tabs spaced 60-inch o.c.	-30.0 (NO HVHZ)
CWF-7.	Min. 3-inch Tectum I	Duro-Last, min. 40-mil	Duro-Last Auger Fastener (min. 2-inch embedment) with 2” Auger Plate and Dupont ENERFOAM™	7/16-inch diameter x 2.5-inch deep pilot holt filled with Dupont ENERFOAM followed by fastener installation within 20-40 seconds after dispensing the foam	Standard Lap System fastened 6-inch o.c. at 3-inch wide tabs spaced 60-inch o.c.	-37.5 (NO HVHZ)

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TABLE 12C: CEMENTITIOUS WOOD FIBER DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE E-1: NON-INSULATED, MECHANICALLY ATTACHED ROOF COVER						
System No.	Deck (4.1.2)	Roof Cover				MDP (psf)
		Membrane	Fastener (4.2.2)		Attach	
			Type	ENERFOAM Installation		
CWF-8.	Min. 5-inch Tectum III-W with existing single ply roof cover	Duro-Tuff, min. 50 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate	N/A	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Side laps sealed with 1.5-inch heat-weld	-52.5
CWF-9.	Min. 3-inch Tectum I with existing single ply roof cover	Duro-Tuff, min. 50 mil	Versa-Fast Fastener and Versa-Fast Metal Plate	N/A	Versa-Fast Metal Plate, with minimum three (3) min. 2¼" long Versa-Fast Fasteners, spaced 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Laps sealed with 1.5-inch heat weld. Fasteners installed forming a triangle pattern with the center-fastener as the apex to the triangle base, which runs parallel to the machine direction of the roll, and closest to the heat-welded lap	-60.0
	Note:	**Field withdrawal resistance testing (4.2.2) shall yield minimum 90 lbf for the 3-fastener-per-plate configuration. Additional Trufast Versa-Fast Fastener within each Versa-Fast Plate may be utilized to produce withdrawal resistance.*				

TABLE 12D: CEMENTITIOUS WOOD FIBER DECKS - NEW CONSTRUCTION, REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE E-2: NON-INSULATED, MECHANICALLY ATTACHED BASE SHEET, BONDED ROOF COVER						
System No.	Deck (4.1.2)	Base Sheet			Roof Cover (3.1.4)	MDP (psf)
		Type	Fastener (4.2.2)	Attach		
CWF-10.	Min. 3-inch Tectum I	GAFGLAS #75 Base Sheet	Min. 1.4-inch. Trufast Twin Loc-Nail Assembled Fastener	7-inch o.c. at the 2-inch laps and 7-inch o.c. in two, equally spaced, staggered row in the center of the sheet	FB4-TRA (SPLATTER)	-22.5 (NO HVHZ)

TABLE 13A: GYPSUM DECKS - REROOF (TEAR-OFF) SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER							
System No.	Deck (4.1.2, 4.2.2)	Base Insulation Layer		Top Insulation Layer		Roof Cover (3.1.4)	MDP (psf)
		Type	Attach (3.1.3)	Type	Attach (3.1.3)		
BAREBACK MEMBRANE APPLICATIONS:							
G-1.	Existing poured gypsum or gypsum plank	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, Duro-Guard ISO III-A or Duro-Guard ISO III-H	CR-20	(Optional) Additional layers of base insulation	CR-20	BB1-SB IV, BB3-SGSA or BB4-WB II	-82.5
G-2.	Existing poured gypsum or gypsum plank	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	BB1-SB IV, BB3-SGSA or BB4-WB II	-247.5
DURO-FLEECE OR DURO-FLEECE PLUS MEMBRANE APPLICATIONS:							
G-3.	Existing poured gypsum or gypsum plank	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, Duro-Guard ISO III-A or Duro-Guard ISO III-H	CR-20	(Optional) Additional layers of base insulation	CR-20	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-45.0
G-4.	Existing poured gypsum or gypsum plank	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-247.5
G-5.	Existing poured gypsum or gypsum plank	Min. 1.5-inch Duro-Guard ISO II-A, ENRGY 3 CGF or Duro-Guard ISO III-H	Trufast RA	Min. 0.5-inch Duro-Guard ISO HD-A or Duro-Guard ISO HD-H	Trufast RA	FB4-TRA (RIBBONS, 4" o.c.)	-165.0
G-6.	Existing poured gypsum or gypsum plank	Min. 1.5-inch Duro-Guard ISO II-A, ENRGY 3 CGF or Duro-Guard ISO III-H	Trufast RA	Min. 0.25-inch DensDeck Prime, DEXcell FA Glass Mat Roof Board, SECUROCK Gypsum-Fiber Roof Board or min. 7/16" DEXcell Cement Roof Board	Trufast RA	FB3-DF CR-20 (RIBBONS, 4" o.c.), FB4-TRA (RIBBONS, 4" o.c.), FB5-OB500 (RIBBONS, 4" o.c.), FB6-TRA (RIBBONS, 4" o.c.) or FB7-PG1 ECO (RIBBONS, 4" o.c.)	-165.0
G-7.	Existing poured gypsum or gypsum plank	Min. 1.5-inch Duro-Guard ISO II-A, ENRGY 3 CGF or Duro-Guard ISO III-H	Trufast RA	Min. 0.25-inch DensDeck, DensDeck Prime, DEXcell FA Glass Mat Roof Board, SECUROCK Gypsum-Fiber Roof Board or SECUROCK Ultralight Glass-Mat Roof Board or min. 7/16" DEXcell Cement Roof Board	Trufast RA	FB4-TRA (RIBBONS, 4" o.c.)	-195.0
G-8.	Existing poured gypsum or gypsum plank	Min. 1.5-inch Duro-Guard ISO II-A, ENRGY 3 CGF or Duro-Guard ISO III-H	Trufast RA	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Trufast RA	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER) or FB7-PG1 ECO (SPLATTER)	-195.0
G-9.	Existing poured gypsum or gypsum plank	Min. 1.5-inch Duro-Guard ISO II-A, H-Shield CG, Duro-Guard ISO III-H	Trufast RA	(Optional) Additional layers of base insulation	Trufast RA	FB5-OB500 (RIBBONS, 4" o.c.), FB6-TRA (RIBBONS, 4" o.c.) or FB7-PG1 ECO (RIBBONS, 4" o.c.)	-202.5
G-10.	Existing poured gypsum or gypsum plank	Min. 1.5-inch Duro-Guard ISO II-A, ENRGY 3 CGF or Duro-Guard ISO III-H	Trufast RA	(Optional) Additional layers of base insulation	Trufast RA	FB4-TRA (RIBBONS, 4" o.c.)	-217.5

TABLE 13B: GYPSUM DECKS - REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, MECHANICALLY ATTACHED ROOF COVER							
System No.	Deck (4.1.2)	Insulation		Roof Cover			MDP (psf)
		Type	Attach	Membrane	Fastener (4.2.2)	Attach	
G-11.	Existing poured gypsum or gypsum plank	One or more layers, any combination	Prelim. Attached	Duro-Last, min. 40 mil,	Duro-Last Auger Fastener with 2" Auger Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide tabs spaced 57-inch o.c.	-45.0
G-12.	Existing poured gypsum or gypsum plank	One or more layers, any combination	Prelim. attached	Duro-Last, min. 40 mil,	Duro-Last Auger Fastener with 2" Auger Plate	Duro-Roof Lap System fastened 6-inch o.c. within 6-inch wide tabs spaced 57-inch o.c. Tab Sealer 4725 at max. 60 ft2/gal	-60.0

TABLE 13C: GYPSUM DECKS - REROOF (TEAR-OFF) OR RECOVER SYSTEM TYPE E-1: NON-INSULATED, MECHANICALLY ATTACHED ROOF COVER					
System No.	Deck (4.1.2)	Roof Cover			MDP (psf)
		Membrane	Fastener (4.2.2)	Attach	
G-13.	Existing poured gypsum or gypsum plank	Duro-Tuff, min. 50 mil,	Min. 1.8-inch Trufast Twin Loc-Nail Assembled Fastener	6-inch o.c. in rows max. 60-inch o.c. A 10-inch side coverstrip of Duro-Tuff membrane is heat-welded, 1.5-inch to encapsulate the batten rows.	-30.0 (NO HVHZ)
G-14.	Existing poured gypsum or gypsum plank	Duro-Tuff, min. 50 mil,	Duro-Last Auger Fastener with 2" Auger Plate	6-inch o.c. in rows max. 48-inch o.c. A 10-inch side coverstrip of Duro-Tuff membrane is heat-welded, 1.5-inch to encapsulate the batten rows.	-45.0
G-15.	Existing poured gypsum or gypsum plank	Duro-Tuff, min. 50 mil,	Min. 1.8-inch Trufast Twin Loc-Nail Assembled Fastener	6-inch o.c. in rows max. 48-inch o.c. A 10-inch side coverstrip of Duro-Tuff membrane is heat-welded, 1.5-inch to encapsulate the batten rows.	-60.0

TABLE 14A: RECOVER APPLICATIONS SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER							
[A] The reported MDP documents the allowable maximum design pressure of the new insulation and roof cover when installed atop the substrate, irrespective of the deck type (See Section 4.1.2) or performance of the substrate (See Section 4.2.2). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.							
System No.	Substrate (4.1.2, 4.2.2)	Base Insulation Layer		Top Insulation Layer		Roof Cover (3.1.4)	MDP (psf)[A]
		Type	Attach (3.1.2)	Type	Attach (3.1.2)		
BAREBACK MEMBRANE APPLICATIONS:							
R-1.	Existing asphaltic BUR or mineral surface cap sheet	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A	Board-Max	(Optional) Additional layers of base insulation	Board-Max	BB1-SB IV, BB3-SGSA or BB4-WB II	-82.5
R-2.	Existing smooth surface BUR or granule surface modified bitumen	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Board-Max	None	N/A	BB1-SB IV, BB3-SGSA or BB4-WB II	-245.0
R-3.	Existing smooth surface BUR or granule surface modified bitumen	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Board-Max	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Board-Max	BB1-SB IV, BB3-SGSA or BB4-WB II	-247.5
R-4.	Existing smooth-surface asphalt BUR or granule-surface modified bitumen	Min. 0.75-inch Duro-Guard EPS Type IX	Board-Max	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Board-Max	BB1-SB IV, BB3-SGSA or BB4-WB II	-255.0
R-5.	Existing asphaltic BUR or mineral surface cap sheet	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A	CR-20	(Optional) Additional layers of base insulation	CR-20	BB1-SB IV, BB3-SGSA or BB4-WB II	-82.5

TABLE 14A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

[A] The reported MDP documents the allowable maximum design pressure of the new insulation and roof cover when installed atop the substrate, irrespective of the deck type (See Section 4.1.2) or performance of the substrate (See Section 4.2.2). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (4.1.2, 4.2.2)	Base Insulation Layer		Top Insulation Layer		Roof Cover (3.1.4)	MDP (psf)[A]
		Type	Attach (3.1.2)	Type	Attach (3.1.2)		
R-6.	Existing smooth surface modified bitumen	(Optional) Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	BB1-SB IV, BB3-SGSA or BB4-WB II	-222.5
R-7.	Existing smooth-surface SBS modified bitumen	Min. 0.75-inch Duro-Guard EPS Type II, VIII or IX	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	BB1-SB IV, BB3-SGSA or BB4-WB II	-222.5
R-8.	Existing smooth surface BUR or granule surface modified bitumen	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	None	N/A	BB1-SB IV, BB3-SGSA or BB4-WB II	-245.0
R-9.	Existing smooth surface BUR or granule surface modified bitumen	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	BB1-SB IV, BB3-SGSA or BB4-WB II	-247.5
R-10.	Existing smooth-surface asphalt BUR or granule-surface modified bitumen	Min. 0.75-inch Duro-Guard EPS Type II, VIII or IX	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	BB1-SB IV, BB3-SGSA or BB4-WB II	-255.0
R-11.	Existing asphaltic BUR or mineral surface cap sheet	Min. 1.5-inch Duro-Guard ISO II-A	Hot asphalt	(Optional) Additional layers of base insulation	Hot asphalt	BB1-SB IV, BB3-SGSA or BB4-WB II	-75.0
R-12.	Existing asphalt built-up roof	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A	OB500	(Optional) Additional layers of base insulation	OB500	BB1-SB IV, BB3-SGSA or BB4-WB II	-82.5
R-13.	Existing asphalt built-up roof	(Optional) Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3, Duro-Guard ISO III-A or Duro-Guard ISO III-H	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	BB1-SB IV, BB3-SGSA or BB4-WB II	-120.0
DURO-FLEECE OR DURO-FLEECE PLUS MEMBRANE APPLICATIONS:							
R-14.	Existing asphaltic BUR or mineral surface cap sheet	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A	Board-Max	(Optional) Additional layers of base insulation	Board-Max	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-45.0
R-15.	Existing smooth surface BUR or granule surface modified bitumen	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Board-Max	None	N/A	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-245.0
R-16.	Existing smooth surface BUR or granule surface modified bitumen	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	Board-Max	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Board-Max	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-247.5
R-17.	Existing smooth-surface asphalt BUR or granule-surface modified bitumen	Min. 0.75-inch Duro-Guard EPS Type IX	Board-Max	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	Board-Max	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-255.0

TABLE 14A: RECOVER APPLICATIONS
SYSTEM TYPE A-1: BONDED INSULATION, BONDED ROOF COVER

[A] The reported MDP documents the allowable maximum design pressure of the new insulation and roof cover when installed atop the substrate, irrespective of the deck type (See Section 4.1.2) or performance of the substrate (See Section 4.2.2). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.

System No.	Substrate (4.1.2, 4.2.2)	Base Insulation Layer		Top Insulation Layer		Roof Cover (3.1.4)	MDP (psf)[A]
		Type	Attach (3.1.2)	Type	Attach (3.1.2)		
R-18.	Existing asphaltic BUR or mineral surface cap sheet	Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO III-A	CR-20	(Optional) Additional layers of base insulation	CR-20	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-45.0
R-19.	Existing smooth surface modified bitumen	(Optional) Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, ENRGY 3	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-222.5
R-20.	Existing smooth-surface SBS modified bitumen	Min. 0.75-inch Duro-Guard EPS Type II, VIII or IX	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-222.5
R-21.	Existing smooth surface BUR or granule surface modified bitumen	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	None	N/A	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-245.0
R-22.	Existing smooth surface BUR or granule surface modified bitumen	Min. 1.5-inch Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-247.5
R-23.	Existing smooth-surface asphalt BUR or granule-surface modified bitumen	Min. 0.75-inch Duro-Guard EPS Type II, VIII or IX	CR-20	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	CR-20	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-255.0
R-24.	Existing asphaltic BUR or mineral surface cap sheet	Min. 1.5-inch Duro-Guard ISO II-A	Hot asphalt	(Optional) Additional layers of base insulation	Hot asphalt	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-45.0
R-25.	Existing asphalt built-up roof	(Optional) Min. 1.5-inch Duro-Guard ISO II-A, Duro-Guard ISO II-H, Duro-Guard ISO III-A or Duro-Guard ISO III-H	OB500	(Optional) Additional layers of base insulation	OB500	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-45.0
R-26.	Existing asphalt built-up roof	(Optional) Min. 1.5-inch Duro-Guard ISO II-A, H-Shield, Duro-Guard ISO II-H, ENRGY 3, Duro-Guard ISO III-A or Duro-Guard ISO III-H	OB500	Min. 0.25-inch SECUROCK Gypsum-Fiber Roof Board	OB500	FB3-DF CR-20 (SPLATTER), FB4-TRA (SPLATTER), FB5-OB500 (SPLATTER), FB6-TRA (SPLATTER), FB7-PG1 ECO (SPLATTER) or FB1-WB II	-120.0

TABLE 14B: RECOVER OVER STEEL SUBSTRATE SYSTEM TYPE C-2: INDUCTION WELDED 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 (4.1.2)	Insulation Layer (3.1.2)	Attachment		Roof Cover (3.1.4)	MDP (psf)
			Fastener (4.2.2)	Spacing		
RHINOBOND INDUCTION WELD:						
R-27.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 60-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond Plate 1302	12-inch o.c. along purlins 60-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-30.0 (NO HVHZ)
R-28.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 120-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond Plate 1302	6-inch o.c. along purlins 120-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-45.0
R-29.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 48-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond Plate 1302	12-inch o.c. along purlins 48-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-45.0
R-30.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 72-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond Plate 1302	6-inch o.c. along purlins 72-inch o.c.	Duro-Last (min. 40-mil), Duro-Last X (min. 80 mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded using RHINOBOND Installation Tool	-52.5
R-31.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 96-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond Plate 1302	6-inch o.c. along purlins 96-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-52.5
R-32.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 48-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond Plate 1302	6-inch o.c. along purlins 48-inch o.c.	Duro-Last (min. 40-mil), Duro-Last X (min. 80 mil), Duro-Tuff (min. 50-mil) or Duro-Last EV (min. 50-mil) induction welded using RHINOBOND Installation Tool	-82.5
R-33.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 60-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond Plate 1302	6-inch o.c. along purlins 60-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-82.5
R-34.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 48-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond Plate 1302	6-inch o.c. along purlins 48-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 80-mil) induction welded using RHINOBOND Installation Tool	-90.0
***ISOWELD* INDUCTION WELD:**						
R-35.	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 DEKFAST DF-#12-PC-SQ3 with *isoweld*® F1-P-6.8-PVC Plate	12-inch o.c. along purlins 60-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using SFS *isoweld*® 3000 stand-up tool	-45.0

TABLE 14B: RECOVER OVER STEEL SUBSTRATE SYSTEM TYPE C-2: INDUCTION WELDED 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 (4.1.2)	Insulation Layer (3.1.2)	Attachment		Roof Cover (3.1.4)	MDP (psf)
			Fastener (4.2.2)	Spacing		
R-36.	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 DEKFAST DF-#12-PC-SQ3 with *isoweld*® F1-P-6.8-PVC Plate	6-inch o.c. along purlins 60-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 80 mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using SFS *isoweld*® 3000 stand-up tool	-90.0
TRUFAST INDUCTION WELD:						
R-37.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 60-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond PVC IW Plate	12-inch o.c. along purlins 60-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-45.0
R-38.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 48-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond PVC IW Plate	12-inch o.c. along purlins 48-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-52.5
R-39.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 48-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond PVC IW Plate	12-inch o.c. along purlins 48-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-60.0
R-40.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 36-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond PVC IW Plate	12-inch o.c. along purlins 36-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-60.0
R-41.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 36-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond PVC IW Plate	12-inch o.c. along purlins 36-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-82.5
R-42.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 72-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond PVC IW Plate	6-inch o.c. along purlins 72-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-67.5
R-43.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 72-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond PVC IW Plate	6-inch o.c. along purlins 72-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-75.0
R-44.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 60-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond PVC IW Plate	6-inch o.c. along purlins 60-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-75.0
R-45.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 60-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond PVC IW Plate	6-inch o.c. along purlins 60-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-90.0

TABLE 14B: RECOVER OVER STEEL SUBSTRATE
SYSTEM TYPE C-2: INDUCTION WELDED 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 (4.1.2)	Insulation Layer (3.1.2)	Attachment		Roof Cover (3.1.4)	MDP (psf)
			Fastener (4.2.2)	Spacing		
R-46.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 48-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond PVC IW Plate	6-inch o.c. along purlins 48-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-90.0
R-47.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 48-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond PVC IW Plate	6-inch o.c. along purlins 48-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-112.5
R-48.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 36-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond PVC IW Plate	6-inch o.c. along purlins 36-inch o.c.	Duro-Last (min. 40 mil), Duro-Last X (min. 50-mil) or Duro-Tuff (min. 50 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-112.5
R-49.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced **max. 36-inch o.c.**	One or more layers, any combination, preliminarily fastened	Trufast #12 Purlin Fastener with Duro-Bond PVC IW Plate	6-inch o.c. along purlins 36-inch o.c.	Duro-Last (min. 60 mil), Duro-Last X (min. 80-mil), Duro-Last EV (min. 50 mil) or Duro-Tuff (min. 60 mil) induction welded using Trufast Induction Welding Tool and Magnets or RHINOBOND Installation Tool	-150.0

TABLE 14C: RECOVER OVER STEEL SUBSTRATE
SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, 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.	Substrate (4.1.2)	Insulation (3.1.2, 4.2.2)		Roof Cover (3.1.4)			MDP (psf)
		Type	Attach (3.1.2)	Membrane	Fastener (4.2.2)	Attachment	
STANDARD LAP SYSTEMS, DURO-LAST MEMBRANE:							
R-50.	Min. 22 ga., Type B, Grade 60 steel with existing single ply roof cover	One or more layers, any combination	Prelim. attached	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Cleat Plate	Standard Lap System fastened 12-inch o.c. within 3-inch wide tabs spaced 60-inch o.c.	-30.0 (NO HVHZ)
R-51.	Min. 22 ga., Type B, Grade 60 steel with existing single ply roof cover	One or more layers, any combination	Prelim. attached	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Cleat Plate	Standard Lap System fastened 12-inch o.c. within 6-inch wide tabs spaced 120-inch o.c.	-30.0 (NO HVHZ)
R-52.	Existing standing seam or lap seam metal roof covers having min. 16 gauge (0.0598 inch), 50 ksi or min. 12 gauge (0.105 in.), 36 ksi steel purlins spaced max. 120-inch o.c.	One or more layers, any combination	Prelim. attached	Duro-Last, min. 40 mil	Trufast #12 Purlin Fastener with Duro-Last Poly-Plateor Duro-Last Cleat Plate	Standard Lap System fastened 9-inch o.c. within 3-inch wide tabs spaced 60-inch o.c. along purlins	-45.0
R-53.	Min. 22 ga., Type B, Grade 40 steel with existing asphalt built-up roof (BUR)	Min. 3/8-inch DURO-GUARD XPS FAN FOLD	Duro-Last #14 Heavy Duty with Duro-Last 3-inch Metal Plate; 1 per 5.3 ft^2; 6 parts per 4x8 ft section	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Poly-Plate or Duro-Last Cleat Plate	Standard Lap System fastened 12-inch o.c. within 3-inch wide tabs spaced 60-inch o.c.	-52.5

TABLE 14C: RECOVER OVER STEEL SUBSTRATE SYSTEM TYPE D-1: PRELIMINARILY ATTACHED INSULATION, 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.	Substrate (4.1.2)	Insulation (3.1.2, 4.2.2)		Roof Cover (3.1.4)			MDP (psf)
		Type	Attach (3.1.2)	Membrane	Fastener (4.2.2)	Attachment	
R-54.	Min. 26 ga., Type HVF, Grade 80 steel; 5 ft span; 5/8" puddle weld with weld-washer at each flute followed by min. 330 psi, min. 2-inch thick cellular lightweight insulating concrete and existing single ply roof membrane	Min. 3/8-inch DURO-GUARD XPS FAN FOLD	Loose-laid	Duro-Last, min. 40 mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate or Duro-Last Cleat Plate	Standard Lap System fastened 6-inch o.c. within 3-inch wide tabs spaced 60-inch o.c.	-60.0
STANDARD LAP SYSTEMS, DURO-TUFF OR DURO-LAST X MEMBRANE:							
R-55.	Min. 22 ga., Type B, Grade 60 steel with existing single ply roof cover	One or more layers, any combination	Prelim. attached	Duro-Tuff, min. 50 mil or Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate	Standard Lap System fastened 12-inch o.c. within 6-inch wide laps spaced 114-inch o.c. Laps sealed with 1.5-inch heat weld.	-22.5 (NO HVHZ)
R-56.	Min. 22 ga., Type B, Grade 40 steel with existing asphalt built-up roof (BUR)	Min. 3/8-inch DURO-GUARD XPS FAN FOLD	Duro-Last #14 Heavy Duty with Duro-Last 3-inch Metal Plate; 1 per 5.3 ft^2; 6 parts per 4x8 ft section	Duro-Tuff, min. 50 mil or Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate or Duro-Last Cleat Plate	Standard Lap System fastened 12-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Side laps sealed with 1.5-inch heat-weld	-52.5
R-57.	Min. 26 ga., Type HVF, Grade 80 steel; 5 ft span; 5/8" puddle weld with weld-washer at each flute followed by min. 330 psi, min. 2-inch thick cellular lightweight insulating concrete and existing single ply roof membrane	Min. 3/8-inch DURO-GUARD XPS FAN FOLD	Loose-laid	Duro-Tuff, min. 50 mil or Duro-Last X, min. 50-mil	Duro-Last #15 Extra Heavy Duty Drill Point Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Poly-Plate or Duro-Last Cleat Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 54-inch o.c. Side laps sealed with 1.5-inch heat-weld	-60.0
R-58.	Min. 22 ga., Type B, Grade 33 steel with existing single ply roof cover	(Optional) One or more layers, any combination	Loose-laid	Duro-Tuff, min. 50 mil	Duro-Last #14 HD Fastener or Duro-Last #15 Heavy Duty Screw Fastener with Duro-Last Cleat Plate	Standard Lap System fastened 6-inch o.c. within 6-inch wide laps spaced 24-inch o.c. Laps sealed with 1.5-inch heat weld	-82.5

TABLE 14D: RECOVER OVER CEMENTITIOUS WOOD FIBER SUBSTRATE SYSTEM TYPE E-1: NON-INSULATED, MECHANICALLY ATTACHED ROOF COVER						
[A] The reported MDP documents the allowable maximum design pressure of the new roof cover when installed atop the substrate, irrespective of the deck type (See Section 4.1.2) or performance of the substrate (See Section 4.2.2). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.						
System No.	Substrate (4.1.2)	Roof Cover				MDP (psf)
		Membrane	Fastener (4.2.2)		Attach	
			Type	ENERFOAM Installation		
R-59.	Min. 2-inch Tectum I with existing single ply roof cover	Duro-Last, min. 40-mil	Duro-Last Auger Fastener (min. 2-inch embedment)	N/A	Through-fastened 6-inch o.c. in rows 48-inch o.c. Fastener rows sealed with 10-inch wide strip of Duro-Last, with a 1.5-inch heat weld on all sides	-30.0 (NO HVHZ)

TABLE 14D: RECOVER OVER CEMENTITIOUS WOOD FIBER SUBSTRATE SYSTEM TYPE E-1: NON-INSULATED, MECHANICALLY ATTACHED ROOF COVER						
[A] The reported MDP documents the allowable maximum design pressure of the new roof cover when installed atop the substrate, irrespective of the deck type (See Section 4.1.2) or performance of the substrate (See Section 4.2.2). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.						
System No.	**Substrate (4.1.2)**	**Roof Cover**				**MDP (psf)**
		Membrane	**Fastener (4.2.2)**		**Attach**	
			Type	**ENERFOAM Installation**		
R-60.	Min. 3-inch Tectum I with existing single ply roof cover	Duro-Last, min. 40-mil	Duro-Last Auger Fastener (min. 2-inch embedment) with 2" Auger Plate and Dupont ENERFOAM™	7/16-inch diameter x 2.5-inch deep pilot holt filled with Dupont ENERFOAM followed by fastener installation within 20-40 seconds after dispensing the foam	Through-fastened 6-inch o.c. in rows 96-inch o.c. Fastener rows sealed with 10-inch wide strip of Duro-Last, with a 1.5-inch heat weld on all sides	-67.5

TABLE 14E: RECOVER APPLICATIONS SYSTEM TYPE F: NON-INSULATED, BONDED ROOF COVER				
[A] The reported MDP documents the allowable maximum design pressure of the new roof cover when installed atop the substrate, irrespective of the deck type (See Section 4.1.2) or performance of the substrate (See Section 4.2.2). The deck and substrate shall be capable of resisting the project design pressure requirements, not to exceed the noted MDP, to the satisfaction of the Authority Having Jurisdiction.				
System No.	**Substrate (4.1.2, 4.2.2)**	**Primer / Treatment**	**Roof Cover (3.1.4)**	**MDP (psf)[A]**
R-61.	Existing asphaltic roof system with mechanically fastened and/or adhered underlying components (insulation, coverboard or base sheet) and with existing granule-surface BUR or granule-surface SBS or APP modified bitumen cap sheet	None	FB3-DF CR-20 (SPLATTER)	-150.0
R-62.	Existing asphaltic roof system with adhered underlying components (insulation, coverboard or base sheet) over monolithic deck and with existing smooth- or granule-surface BUR or granule-surface SBS or APP modified bitumen cap sheet	None	FB3-DF CR-20 (SPLATTER)	-370.0