



NEMO EVALUATION REPORT (NER)



SOPREMA, Inc.

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Wadsworth, OH 44281
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SUBJECT: SOPREMA® Roof Underlayments

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
2023 Florida Building Code, Residential, 8th Edition

JURISDICTION: Non-HVHZ and HVHZ

NEMO CATEGORY: Steep-Slope

FBC CATEGORY: Roofing

FBC SUB-CATEGORY: Underlayments

CSI DIVISION: 07 00 00 Thermal and Moisture Protection
07 30 05 Roofing Felt and Underlayment

METHOD: Method 1, Option C – Codified Material, Evaluation by Evaluation Entity

COMPLIANCE STATEMENT: **SOPREMA Roof Underlayments**, as produced by **SOPREMA, Inc.**, 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 require, 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 ETC, LLC does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products it evaluates.
- ✓ NEMO ETC, LLC is not owned, operated or controlled by any company manufacturing or distributing products it evaluates.
- ✓ This is a building code evaluation. NEMO ETC, 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.



1. CODES, PROPERTIES AND STANDARDS:

CODE	SECTION	PROPERTY	STANDARD
2023 Florida Building Code, 8 th Edition	1504.2.1.4	Wind resistance	UL 1897
	1504.2.1.4	Wind resistance	UL 1897
	1507.1.1, 1507.2.9.2, 1507.2.9.3, 1518.2, TAS 110	Material standard	ASTM D1970
	1507.3.3	Material standard	FRSA/TRI Manual
	1507.10.2, TAS 110	Material standard	ASTM D4601
	1523.6.5.2.1, TAS 110	Material standard	TAS 103
	TAS 110	Accelerated Weathering	ASTM D4798
2023 Florida Building Code, Residential, 8 th Edition	R905.1.1, R905.2.8.2, R905.2.8.5	Material standard	ASTM D1970
	R905.3.3	Material standard	FRSA/TRI Manual

2. PRODUCTS:

PRODUCT	MATERIAL STANDARD	MFG LOCATION(S) ¹	DESCRIPTION
LASTOBOND TU HT	ASTM D1970, FRSA/TRI and TAS 103	ML2	self-adhering, non-woven polyester fabric surfaced, SBS modified bitumen roof underlayment
SRS TopShield Ice & Water Defender TU			
Tri-Built S/A HT TU Underlayment			
LASTOBOND PRO TU HT	ASTM D1970, FRSA/TRI and TAS 103	ML2	self-adhering, non-woven polyester fabric surfaced, SBS modified bitumen roof underlayment
LASTOBOND Shield	ASTM D1970	ML1	self-adhering, woven polyethylene surfaced, SBS modified bitumen roof underlayment available in two widths; 36 and 45 inch
LASTOBOND Pro HT-N			
RESISTO SA SMOOTH PLY 40			
LASTOBOND Shield HT	ASTM D1970	ML1	self-adhering, woven polyethylene surfaced, high temperature, SBS modified bitumen roof underlayment
LASTOBOND Pro HT-S			
LASTOBOND Smooth Seal HT ²	ASTM D1970	ML2, ML3	self-adhering, glass-mat reinforced, film-surfaced, SBS modified bitumen roof underlayment
Tri-Built Smooth HT S/A Underlayment ²			
LASTOBOND Reinforced HT ²	ASTM D1970	ML2	self-adhering, glass-mat reinforced, film-surfaced, SBS modified bitumen roof underlayment
RESISTO LB1236 ² or LB1244	ASTM D1970	ML2, ML3	self-adhering, glass-mat reinforced, sand-surfaced, SBS modified bitumen roof underlayment
LASTOBOND ECO			
BITUTAK SA Base			
SRS TopShield Ice & Water Defender ²			
TRI-BUILT Sand-R SA Shingle Underlayment ²			

¹ Building officials, Designers of Record and other Authorities Having Jurisdiction may contact info@nemoetc.com to obtain manufacturing location information for products evaluated herein.

² NEMO Certified.



3. INSTALLATION:

- 3.1 **SOPREMA Roof Underlayments** shall be installed in accordance with **SOPREMA, Inc.** published installation instructions, subject to the [Limitations of Use](#) noted herein. In case of conflict between published installation instructions and this NER, this report governs.
- 3.2 Roof decks shall be in accordance with codified requirements to the satisfaction of the Authority Having Jurisdiction. Re-fasten any loose decking panels, and check for protruding nail heads. Sweep the substrate thoroughly to remove any dust and debris prior to application, and prime the substrate (if applicable).

3.3 LASTOBOND TU HT, SRS TopShield Ice & Water Defender TU, Tri-Built S/A HT TU Underlayment or LASTOBOND PRO TU HT:

3.3.1 FBC (NON-HVHZ) and FBC Residential:

3.3.1.1 Non-Tile Applications:

Shall be installed in compliance with requirements for an approved self-adhering underlayment, ASTM D1970, in FBC 1507.1.1.1 or FBC Residential R905.1.1.1 for the type of prepared roof covering to be installed, and the manufacturer’s installation instructions.

When installed over a mechanically attached base sheet of Approved ASTM D226 felt or ASTM D4869 felt, the base sheet shall be fastened in accordance with FBC 1507.1.1.1 or FBC Residential R905.1.1.1.

3.3.1.2 Mechanically Attached or Adhesive-Set Tile Applications:

Refer to [Table 3c](#) herein for allowable tile-adhesives.

Refer to [Section 4.7.2](#) herein for attachment and design pressure limitations.

Refer to [Table 7](#) herein for tile staging limitations.

3.3.1.3 As Valley Liner:

May be used as a valley lining material in a closed valley condition or a valley flashing material in accordance with FBC Chapter 15 or FBC Residential Chapter 9.

3.3.2 FBC HVHZ:

3.3.2.1 Non-Tile Applications:

DECK TYPE 1:	Wood, Non-Insulated
DECK DESCRIPTION:	Min. 19/32-inch plywood
SYSTEM TYPE E-1:	Self-adhering strips to plywood joints; underlayment mechanically fastened to deck
SECONDARY WATER BARRIER:	Min. 3¾-inch wide strips of LASTOBOND TU HT, SRS TopShield Ice & Water Defender TU, Tri-Built S/A HT TU Underlayment or LASTOBOND PRO TU HT self-adhered over joints of the plywood roof deck prior to installation of subsequent layer(s) in accordance with FBC HVHZ 1518.2.1(2). Do not overlap end-joints or T-joints. All end-joints and T-joints shall be butted firmly side by side, flush with each other but not overlapped.
UNDERLAYMENT:	FBC HVHZ Approved, mechanically attached underlayment in accordance with FBC HVHZ Table 1518.2.1.
SURFACING:	FBC HVHZ Approved metal shingles, slate, slate type shingles, wood shingles or wood shakes.



DECK TYPE 1:	Wood, Non-Insulated
DECK DESCRIPTION:	Min. 19/32-inch plywood
SYSTEM TYPE E-2:	Optional self-adhering strips to plywood joints; base sheet mechanically fastened to deck; underlayment adhered to base sheet
SECONDARY WATER BARRIER:	(Optional) Min. 3/4-inch wide strips of LASTOBOND TU HT, SRS TopShield Ice & Water Defender TU, Tri-Built S/A HT TU Underlayment or LASTOBOND PRO TU HT self-adhered over joints of the plywood roof deck prior to installation of subsequent layer(s) in accordance with FBC HVHZ 1518.2.1(2). Do not overlap end-joints or T-joints. All end-joints and T-joints shall be butted firmly side by side, flush with each other but not overlapped.
BASE SHEET:	FBC HVHZ Approved, ASTM D226, Type II felt or ASTM D4869, Type III or IV felt in accordance with FBC HVHZ Table 1518.2.1.
FASTENING:	Grid pattern of 12-inches between the overlaps, with 6-inch spacing at the overlaps, in accordance with FBC HVHZ Table 1518.2.1.
UNDERLAYMENT:	LASTOBOND TU HT, SRS TopShield Ice & Water Defender TU, Tri-Built S/A HT TU Underlayment or LASTOBOND PRO TU HT , self-adhered.
SURFACING:	FBC HVHZ Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles.

DECK TYPE 1:	Wood, Non-Insulated
DECK DESCRIPTION:	Min. 19/32-inch plywood
SYSTEM TYPE F:	Underlayment adhered to deck
UNDERLAYMENT:	LASTOBOND TU HT, SRS TopShield Ice & Water Defender TU, Tri-Built S/A HT TU Underlayment or LASTOBOND PRO TU HT , self-adhered.
SURFACING:	FBC HVHZ Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles.

3.3.2.2 Mechanically Attached or Adhesive-Set Tile Applications:

Refer to [Table 3c](#) herein for allowable tile-adhesives.

Refer to [Section 4.7.2](#) herein for attachment and design pressure limitations.

Refer to [Table 7](#) herein for tile staging limitations.

3.4 **LASTOBOND Shield, LASTOBOND Pro HT-N, RESISTO SA SMOOTH PLY 40, LASTOBOND Shield HT, LASTOBOND Pro HT-S, LASTOBOND ECO, BITUTAK SA Base, LASTOBOND Smooth Seal HT, Tri-Built Smooth HT S/A Underlayment, LASTOBOND Reinforced HT, RESISTO LB1236 or LB1244, TRI-BUILT Sand-R SA Shingle Underlayment or TopShield Ice & Water Defender:**

3.4.1 **FBC (NON-HVHZ) and FBC Residential:**

3.4.1.1 **Non-Tile Applications:**

Shall be installed in compliance with requirements for an approved self-adhering underlayment, ASTM D1970, in FBC 1507.1.1.1 or FBC Residential R905.1.1.1 for the type of prepared roof covering to be installed, and the manufacturer’s installation instructions.

When installed over a mechanically attached base sheet of Approved ASTM D226 felt or ASTM D4869 felt, the base sheet shall be fastened in accordance with FBC 1507.1.1.1 or FBC Residential R905.1.1.1.

3.4.1.2 **As Valley Liner:**

May be used as a valley lining material in a closed valley condition or a valley flashing material in accordance with FBC Chapter 15 or FBC Residential Chapter 9.



3.4.2 FBC HVHZ:

3.4.2.1 Non-Tile Applications:

DECK TYPE 1:	Wood, Non-Insulated
DECK DESCRIPTION:	Min. 19/32-inch plywood
SYSTEM TYPE E-1:	Self-adhering strips to plywood joints; underlayment mechanically fastened to deck
SECONDARY WATER BARRIER:	Min. 3¾-inch wide strips of LASTOBOND Shield, LASTOBOND Pro HT-N, RESISTO SA SMOOTH PLY 40, LASTOBOND Shield HT, LASTOBOND Pro HT-S, LASTOBOND ECO, BITUTAK SA Base, LASTOBOND Smooth Seal HT, Tri-Built Smooth HT S/A Underlayment, LASTOBOND Reinforced HT, RESISTO LB1236 or LB1244, TRI-BUILT Sand-R SA Shingle Underlayment or TopShield Ice & Water Defender self-adhered over joints of the plywood roof deck prior to installation of subsequent layer(s) in accordance with FBC HVHZ 1518.2.1(2). Do not overlap end-joints or T-joints. All end-joints and T-joints shall be butted firmly side by side, flush with each other but not overlapped.
UNDERLAYMENT:	FBC HVHZ Approved, mechanically attached underlayment in accordance with FBC HVHZ Table 1518.2.1.
SURFACING:	FBC HVHZ Approved metal shingles, slate, slate type shingles, wood shingles or wood shakes.

DECK TYPE 1:	Wood, Non-Insulated
DECK DESCRIPTION:	Min. 19/32-inch plywood
SYSTEM TYPE E-2:	Optional self-adhering strips to plywood joints; base sheet mechanically fastened to deck; underlayment adhered to base sheet
SECONDARY WATER BARRIER:	(Optional) Min. 3¾-inch wide strips of LASTOBOND Shield, LASTOBOND Pro HT-N, RESISTO SA SMOOTH PLY 40, LASTOBOND Shield HT, LASTOBOND Pro HT-S, LASTOBOND ECO, BITUTAK SA Base, LASTOBOND Smooth Seal HT, Tri-Built Smooth HT S/A Underlayment, LASTOBOND Reinforced HT, RESISTO LB1236 or LB1244, TRI-BUILT Sand-R SA Shingle Underlayment or TopShield Ice & Water Defender self-adhered over joints of the plywood roof deck prior to installation of subsequent layer(s) in accordance with FBC HVHZ 1518.2.1(2). Do not overlap end-joints or T-joints. All end-joints and T-joints shall be butted firmly side by side, flush with each other but not overlapped.
BASE SHEET:	FBC HVHZ Approved, ASTM D226, Type II felt or ASTM D4869, Type III or IV felt in accordance with FBC HVHZ Table 1518.2.1.
FASTENING:	Grid pattern of 12-inches between the overlaps, with 6-inch spacing at the overlaps, in accordance with FBC HVHZ Table 1518.2.1.
UNDERLAYMENT:	LASTOBOND Shield, LASTOBOND Pro HT-N, RESISTO SA SMOOTH PLY 40, LASTOBOND Shield HT, LASTOBOND Pro HT-S, LASTOBOND ECO, BITUTAK SA Base, LASTOBOND Smooth Seal HT, LASTOBOND Reinforced HT, Tri-Built Smooth HT S/A Underlayment, RESISTO LB1236 or LB1244, TRI-BUILT Sand-R SA Shingle Underlayment or TopShield Ice & Water Defender , self-adhered.
SURFACING:	FBC HVHZ Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles.

DECK TYPE 1:	Wood, Non-Insulated
DECK DESCRIPTION:	Min. 19/32-inch plywood
SYSTEM TYPE F:	Underlayment adhered to deck
UNDERLAYMENT:	LASTOBOND Shield, LASTOBOND Pro HT-N, RESISTO SA SMOOTH PLY 40, LASTOBOND Shield HT, LASTOBOND Pro HT-S, LASTOBOND ECO, BITUTAK SA Base, LASTOBOND Smooth Seal HT, Tri-Built Smooth HT S/A Underlayment, LASTOBOND Reinforced HT, RESISTO LB1236 or LB1244, TRI-BUILT Sand-R SA Shingle Underlayment or TopShield Ice & Water Defender , self-adhered.
SURFACING:	FBC HVHZ Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles.

3.4.3 Installation of RESISTO LB1236 or LB1244, TRI-BUILT Sand-R SA Shingle Underlayment or TopShield Ice & Water Defender self-adhering underlayment in a reroof (tear-off) application atop an existing underlayment requires priming of the existing substrate with RESISTO EXTERIOR PRIMER. Final acceptance of any existing substrate is at the discretion of the installer and the Authority Having Jurisdiction. Should a question arise as to the suitability of an existing substrate to receive RESISTO LB1236 or LB1244, TRI-BUILT Sand-R SA Shingle Underlayment or TopShield Ice & Water Defender self-adhering underlayments, contact [SOPREMA technical support](#).



4. LIMITATIONS OF USE:

- 4.1 This is a building code evaluation. NEMO ETC, 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 ETC, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.
- 4.2 This NER pertains to above-deck roof components. Roof decks and structural members shall be in accordance with the applicable Code requirements to the satisfaction of the Authority Having Jurisdiction.
- 4.3 **SOPREMA Roof Underlayments** may be used with any prepared roof cover where the product is specifically referenced within applicable approval documents. If not listed, a request may be made to the Authority Having Jurisdiction for approval based on this evaluation combined with supporting data for the prepared roof covering.
- 4.4 **Fire Classification:**
SOPREMA Roof Underlayments may be used in non-classified roof coverings or as a component of a classified roofing assembly when specifically recognized as such in a listing approved by the Authority Having Jurisdiction. Refer to [UL File TGDY.R21824](#) for the applicant’s baseline fire classification listings.
- 4.5 **Allowable Roof Covers:**
Table 3 lists allowable roof cover types, subject to fire classification documentation set forth in [Section 4.4](#) herein (if applicable).

TABLE 3: ROOF COVER OPTIONS

UNDERLAYMENT	ROOF COVER	FBC AND FBC-R SECTION(S)		FBC HVHZ SECTIONS	
		SECTION	ALLOWABLE USE	SECTION	ALLOWABLE USE
LASTOBOND TU HT, SRS TopShield Ice & Water Defender TU, Tri-Built S/A HT TU Underlayment or LASTOBOND PRO TU HT	Asphalt Shingles	1507.2, R905.2	Yes ³	RAS 115, 1518.2.1	Yes ⁴
	Roof Tile	1507.3, R905.3		RAS 118, RAS 119 or RAS 120	
	Metal Shingles or Panels	1507.4, 1507.5, R905.4, R905.10		RAS 133, 1518.2.1	
	Slate or Slate-Type Shingles	1507.7, R905.6		1518.2.1	
	Wood Shingles or Shakes	1507.8, 1507.9, R905.7, R905.8		RAS 130, 1518.10	
LASTOBOND Shield, LASTOBOND Pro HT-N, RESISTO SA SMOOTH PLY 40, LASTOBOND Shield HT, LASTOBOND Pro HT-S, LASTOBOND ECO, BITUTAK SA Base, LASTOBOND Smooth Seal HT, Tri-Built Smooth HT S/A Underlayment, LASTOBOND Reinforced HT, RESISTO LB1236 or LB1244, TRI-BUILT Sand-R SA Shingle Underlayment or TopShield Ice & Water Defender	Asphalt Shingles	1507.2, R905.2	Yes ⁵	RAS 115, 1518.2.1	Yes ⁶
	Roof Tile	1507.3, R905.3	No	RAS 118, RAS 119 or RAS 120	No
	Metal Shingles or Panels	1507.4, 1507.5, R905.4, R905.10	Yes ⁵	RAS 133, 1518.2.1	Yes ⁶
	Slate or Slate-Type Shingles	1507.7, R905.6	Yes ⁵	1518.2.1	Yes ⁶
	Wood Shingles or Shakes	1507.8, 1507.9, R905.7, R905.8	Yes ⁵	RAS 130, 1518.10	Yes ⁶

³ Product used as ASTM D1970 compliant material. For roof tile, used with mechanically fastened tile or adhesive-set tile using adhesive options set forth in Table 3c. For wood shakes and shingles, product is used as min. 3 3/4-inch wide joint-strips per FBC 1507.1.1.1(2) / FBC R905.1.1.1(2) or installed in full-coverage atop ASTM D226, Type II felt or ASTM D4869 Type III or IV felt mechanically attached in accordance with FBC Table 1507.1.1.1 or FBC Residential Table R905.1.1.1.

⁴ Product used as ASTM D1970 and TAS 103 compliant material. For roof tile, used with mechanically fastened tile or adhesive-set tile using adhesive options set forth in Table 3c. For wood shakes and shingles, product is limited to use per RAS 130.

⁵ Product used as ASTM D1970 compliant material. For wood shakes and shingles, product is used as min. 3 3/4-inch wide joint-strips per FBC 1507.1.1.1(2) / FBC R905.1.1.1(2) or installed in full-coverage atop ASTM D226, Type II felt or ASTM D4869 Type III or IV felt mechanically attached in accordance with FBC Table 1507.1.1.1 or FBC Residential Table R905.1.1.1.

⁶ Product used as ASTM D1970 compliant material. For wood shakes and shingles, product is limited to use per RAS 130.



4.5.1 Adhesive-set tile is limited to use of the following Approved underlayment / tile-adhesive combinations.

TABLE 3C: ALLOWABLE UNDERLAYMENT / TILE-ADHESIVE COMBINATIONS ⁷			
UNDERLAYMENT	ADHESIVE	CODE COMPLIANCE REPORT	
		FBC FPA	FBC HVHZ
LASTOBOND TU HT, SRS TopShield Ice & Water Defender TU, Tri-Built S/A HT TU Underlayment or LASTOBOND PRO TU HT	Dupont "TILE BOND Roof Tile Adhesive"	FL22525	NOA 22-0614.05
	ICP "APOC POLYSET AH-160"	FL6332	NOA 22-0614.10

4.6 Allowable Substrates:

TABLE 4: SUBSTRATE OPTIONS FOR ADHERED UNDERLAYMENTS				
UNDERLAYMENT	APPLICATION	SUBSTRATES (DESIGNED TO MEET WIND LOADS FOR PROJECT)		
		TYPE	PRIMER	MATERIAL(S)
LASTOBOND Shield, LASTOBOND Pro HT-N, RESISTO SA SMOOTH PLY 40, LASTOBOND Shield HT, LASTOBOND Pro HT-S, LASTOBOND TU HT, SRS TopShield Ice & Water Defender TU, Tri-Built S/A HT TU Underlayment, LASTOBOND PRO TU HT, LASTOBOND ECO, BITUTAK SA Base, RESISTO LB1236 or LB1244, TRI-BUILT Sand-R SA Shingle Underlayment, TopShield Ice & Water Defender, LASTOBOND Smooth Seal HT, Tri-Built Smooth HT S/A Underlayment or LASTOBOND Reinforced HT	self-adhering	Deck / sheathing	(Optional) ASTM D41, Elastocol Stick, Elastocol Stick Zero	plywood, OSB or Southern Yellow Pine (SYP)
		Insulation	ASTM D41	structural concrete
		Base Sheet	(Optional) Elastocol Stick Zero	Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board
LASTOBOND TU HT, SRS TopShield Ice & Water Defender TU, Tri-Built S/A HT TU Underlayment, LASTOBOND PRO TU HT, RESISTO LB1236 or LB1244, TRI-BUILT Sand-R SA Shingle Underlayment or TopShield Ice & Water Defender	self-adhering	Existing substrate	RESISTO EXTERIOR PRIMER	Existing sand-surfaced, glass-fiber surfaced, mineral-surfaced or film-surfaced roof underlayment*

* Final acceptance of any existing substrate in a reroof (tear-off) installation is at the discretion of the installer and the Authority Having Jurisdiction. Should a question arise as to the suitability of an existing substrate to receive the selected self-adhering underlayment, contact [SOPREMA technical support](#).

⁷ Refer to Tile Manufacturer's or Adhesive Manufacturer's Florida Product Approval or Miami-Dade NOA for Overturning Moment Resistance Performance.



4.7 Attachment Limitations:

4.7.1 For use under the FBC and FBC Residential, refer to [Section 3](#) herein and the applicable Code requirements.

4.7.2 Wind Resistance for Underlayment Systems in Tile Roof Applications under the FBC and FBC Residential:

The following wind uplift limitations apply to tile underlayment systems per FBC 1504.2.1.4 and Section 7 of TAS 103. The Maximum Design Pressure ('MDP') 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 has already been applied).

TABLE 5A: ALLOWABLE DESIGN PRESSURES, DIRECT-TO-DECK ADHERED UNDERLAYMENT IN TILE ROOF APPLICATIONS					
SYSTEM No.	DECK	PRIMER	UNDERLAYMENT		MAX. DESIGN PRESSURE (PSF)
			BASE PLY	TOP PLY	
UDL-1.	Structural concrete	Elastocol Stick Zero	None	LASTOBOND TU HT, SRS TopShield Ice & Water Defender TU, Tri-Built S/A HT TU Underlayment or LASTOBOND PRO TU HT, self-adhered and back-nailed within the selvedge-edge side laps using FBC Approved concrete fasteners and stress plates spaced 12-inch o.c.	-67.5
UDL-2.	Plywood, APA rated sheathing, 32/16, Exposure 1, PS1, 15/32 category	(Optional) RESISTO EXTERIOR PRIMER	LASTOBOND Shield or RESISTO SA SMOOTH PLY 40, self-adhered	LASTOBOND TU HT, SRS TopShield Ice & Water Defender TU, Tri-Built S/A HT TU Underlayment or LASTOBOND PRO TU HT, self-adhered and back-nailed within the selvedge-edge side laps using 12 ga. x 1 1/4" ring shank nails through 32 ga., 1-5/8" diameter tin caps spaced 12-inch o.c.	-120.0
UDL-3.	Plywood, APA rated sheathing, 32/16, Exposure 1, PS1, 15/32 category	(Optional) RESISTO EXTERIOR PRIMER	None	LASTOBOND TU HT, SRS TopShield Ice & Water Defender TU, Tri-Built S/A HT TU Underlayment or LASTOBOND PRO TU HT, self-adhered and back-nailed within the selvedge-edge side laps using 12 ga. x 1 1/4" ring shank nails through 32 ga., 1-5/8" diameter tin caps spaced 12-inch o.c.	-150.0
UDL-4.	Plywood, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category	RESISTO EXTERIOR PRIMER	LASTOBOND Reinforced HT, self-adhered	LASTOBOND PRO TU HT, self-adhered and back-nailed within the selvedge-edge side laps using 12 ga. x 1 1/4" ring shank nails through 32 ga., 1-5/8" diameter tin caps spaced 12-inch o.c.	-150.0
UDL-5.	Plywood, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category	RESISTO EXTERIOR PRIMER	None	LASTOBOND PRO TU HT, self-adhered and back-nailed within the selvedge-edge side laps using 12 ga. x 1 1/4" ring shank nails through 32 ga., 1-5/8" diameter tin caps spaced 12-inch o.c.	-202.5

TABLE 5B: ALLOWABLE DESIGN PRESSURES, MECHANICALLY ATTACHED BASE SHEET FOLLOWED BY ADHERED UNDERLAYMENT IN TILE ROOF APPLICATIONS							
SYSTEM No.	DECK	BASE SHEET			UNDERLAYMENT		MAX. DESIGN PRESSURE (PSF)
		TYPE	FASTEN	ATTACH	BASE PLY	TOP PLY	
UDL-6.	Plywood, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category	Modified SOPRA-G	12 ga. x 1 1/4" ring shank nails through 32 ga., 1-5/8" diameter tin caps	6-inch o.c. at the 4-inch laps and 6-inch o.c. at three (3), equally spaced center rows	None	LASTOBOND TU HT, SRS TopShield Ice & Water Defender TU, Tri-Built S/A HT TU Underlayment or LASTOBOND PRO TU HT, self-adhered and back-nailed within the selvedge-edge side laps using 12 ga. x 1 1/4" ring shank nails through 32 ga., 1-5/8" diameter tin caps spaced 12-inch o.c.	-60.0





4.8 Exposure Limitations:

TABLE 6: EXPOSURE LIMITATIONS		
UNDERLAYMENT	PREPARED ROOF COVER TYPE (OVERTOP OF UNDERLAYMENT)	MAXIMUM EXPOSURE (DAYS)
LASTOBOND ECO, BITUTAK SA Base, RESISTO LB1236 or LB1244, TRI-BUILT Sand-R SA Shingle Underlayment or TopShield Ice & Water Defender	Mechanically attached	30
LASTOBOND Shield, LASTOBOND Pro HT-N, RESISTO SA SMOOTH PLY 40, LASTOBOND Shield HT, LASTOBOND Pro HT-S, LASTOBOND Smooth Seal HT, Tri-Built Smooth HT S/A Underlayment or LASTOBOND Reinforced HT	Mechanically attached	90
LASTOBOND TU HT, SRS TopShield Ice & Water Defender TU, Tri-Built S/A HT TU Underlayment or LASTOBOND PRO TU HT	Mechanically attached or adhesive-set tile roof system	180

4.9 Tile Slippage Limitations:

When loading roof tiles on the underlayment, the maximum roof slope shall be as follows. Slopes in excess of these limitations require the use of battens or loading boards during loading of the roof tiles, in which case the maximum staging method is a 10-tile stack.

TABLE 7: TILE SLIPPAGE LIMITATIONS				
UNDERLAYMENT	TILE PROFILE	STAGING METHOD	MAXIMUM SLOPE	
LASTOBOND TU HT, SRS TopShield Ice & Water Defender TU or Tri-Built S/A HT TU Underlayment	Flat	Max. 10-tile stack	6:12	
	Lugged	Max. 10-tile stack	5:12	
	Lugged	Double-tile stacking method, as shown below		6:12
				
LASTOBOND PRO TU HT	Flat	Max. 10-tile stack	6:12	
	Lugged	Max. 6-tile stack (4 over 2), as shown below		6:12
				

4.10 For use under the FBC, all components in the roof assembly shall have quality assurance audit in accordance with F.A.C. Rule 61G20-3. Refer to the Product Approval of the component manufacturer for components mentioned herein that are produced by a Product Manufacturer other than this report holder.

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