



NEMO | etc.

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ENGINEER

EVALUATE

TEST

CONSULT

EVALUATION REPORT BY FLORIDA P.E.

SOPREMA, Inc.
1640 rue Haggerty
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(819) 478-2400

**Evaluation Report 3m-SOPC-21-FBCER.A-R2
FL2569-R24 (HVHZ)**
Date of Issuance: 2021-04-19
Revision 2: 2022-02-04

SCOPE:

This Evaluation Report is issued under **Rule 61G20-3** and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code and Florida Building Code, Residential Volume. The products described herein have been evaluated for compliance with the **7th Edition (2020) Florida Building Code, High Velocity Hurricane Zone** sections noted herein.

DESCRIPTION: SOPREMA Roof Underlayments for use in FBC HVHZ jurisdictions

LABELING: Labeling shall be in accordance with the requirements the Accredited Quality Assurance Agency noted herein and FBC 1507.1.1.

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

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

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

This Evaluation Report consists of pages 1 through 7.

Prepared by:

Robert J.M. Nieminen, P.E.
Florida Registration No. 59166, Florida DCA ANE1983



The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 2022-02-04. This does not serve as an electronically signed document.

CERTIFICATION OF INDEPENDENCE:

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

ROOFING COMPONENT EVALUATION:
1. SCOPE:

Product Category: Roofing
Sub-Category: Underlayment
Product Approval Method: Method 1, Option D – Codified Material, Evaluation by Engineer
Compliance Statement: **SOPREMA Roof Underlayments**, as produced by **SOPREMA, Inc.**, have demonstrated compliance with the following sections of the **7th Edition (2020) Florida Building Code, High Velocity Hurricane Zone** through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

2. STANDARDS:

SECTION	PROPERTY	STANDARD	YEAR
TAS 110	Material standard	ASTM D1970	2015
TAS 110	Material standard	ASTM D4601	2012
TAS 110	Material standard	TAS 103	2020
TAS 110	Accelerated Weathering	ASTM D4798	2011

3. REFERENCES:

ENTITY	EXAMINATION	REFERENCE	DATE
ERD (TST6049)	TAS 103 (MS)	S43530.02.14-1-R1	2014-02-21
ERD (TST6049)	ASTM D1970 (QC)	S44870.04.14-3	2014-04-02
ERD (TST6049)	ASTM D1970 (OH)	S44870.04.14-1	2014-04-10
ERD (TST6049)	ASTM D1970 (MS)	S44870.04.14-4	2014-04-10
ERD (TST6049)	ASTM D1970 (OH)	S40540.10.14	2014-10-31
ERD (TST6049)	Tensile Adhesion / Long Term Aging	SOPC-SC7645.02.15	02/13/2015
ERD (TST6049)	ASTM D4798	SOPC-SC8520.04.14	2015-02-13
NEMO (TST6049)	ASTM D1970 / TAS 110 (QC)	SOPC-SC8970.08.15-R1	2015-04-27
NEMO (TST6049)	Tile Slippage	4S-SOPC-18-002.09.18	2018-09-21
NEMO (TST6049)	ASTM D4601 (MS)	4q-SOP-19-SSMBB-01.A	2019-03-11
NEMO (TST6049)	ASTM D4601 (OH)	4q-SOP-19-SSMBB-01.B	2019-03-11
NEMO (TST6049)	ASTM D4798/D1970 (OH & MS)	4S-SOPC-18-002.05.19.A	2019-05-31
NEMO (TST6049)	Tensile Adhesion / Long Term Aging	4p-DOW-19-SSLAP-01.A.R2	2020-02-10
NEMO (TST6049)	Peel adhesion (existing underlayments)	4j-SOPC-19-SSUDL-04.A	2020-03-12
NEMO (TST6049)	Peel adhesion (existing underlayments)	4j-SOPC-20-SSUDL-01.A	2021-01-07
NEMO (TST6049)	ASTM D1970 (MS)	4j-SOPC-21-SSUDL-01.A	2021-04-19
PRI (TST5878)	ASTM D1970 (MS)	SOP-064-02-01	2013-12-03
Soprema, Inc. (PDM3511)	Equivalency Declaration	SA SMOOTH PLY 40	2015-06-29
NEMO	Traceability	FBC Cross-Listing (SRS)	2021-07-28
NEMO	Traceability	FBC Cross-Listing (EM)	2022-02-03
UL, LLC (QUA9625)	Quality Control	MLA File No. R16814	2015-12-10
UL, LLC (QUA9625)	Quality Control	MLA File No. R27605	2019-05-08
UL, LLC (QUA9625)	Quality Control	Service Confirmation	2020-06-29
UL, LLC (QUA9625)	Quality Control	Florida BCIS	Current

4. PRODUCT DESCRIPTION:

	PRODUCT	MATERIAL STANDARD	PLANT(S)	DESCRIPTION
4.1	LASTOBOND TU HT	ASTM D1970 and TAS 103	Gulfport, MS	self-adhering, non-woven polyester fabric surfaced, SBS modified bitumen roof underlayment
4.2	SRS TopShield DEFENDER TU	ASTM D1970 and FRSA/TRI 09-18	Gulfport, MS	self-adhering, non-woven polyester fabric surfaced, SBS modified bitumen roof underlayment
4.3	Tri-Built S/A HT TU Underlayment	ASTM D1970 and TAS 103	Gulfport, MS	self-adhering, non-woven polyester fabric surfaced, SBS modified bitumen roof underlayment

4. PRODUCT DESCRIPTION:

	PRODUCT	MATERIAL STANDARD	PLANT(S)	DESCRIPTION
4.4	LASTOBOND Shield	ASTM D1970	Drummondville, QC	self-adhering, woven polyethylene surfaced, SBS modified bitumen roof underlayment available in two widths; 36 and 45 inch
4.5	LASTOBOND Pro HT-N	ASTM D1970	Drummondville, QC	self-adhering, woven polyethylene surfaced, SBS modified bitumen roof underlayment available in two widths; 36 and 45 inch
4.6	RESISTO SA SMOOTH PLY 40	ASTM D1970	Drummondville, QC	self-adhering, woven polyethylene surfaced, SBS modified bitumen roof underlayment
4.7	LASTOBOND Shield HT	ASTM D1970	Drummondville, QC	self-adhering, woven polyethylene surfaced, high temperature, SBS modified bitumen roof underlayment
4.8	LASTOBOND Pro HT-S	ASTM D1970	Drummondville, QC	self-adhering, woven polyethylene surfaced, high temperature, SBS modified bitumen roof underlayment
4.9	EXCEPTIONAL HT	ASTM D1970	Drummondville, QC	self-adhering, woven polyethylene surfaced, high temperature, SBS modified bitumen roof underlayment
4.10	LASTOBOND Eco	ASTM D1970	Drummondville, QC Gulfport, MS Wadsworth, OH	self-adhering, glass-mat reinforced, sand-surfaced, SBS modified bitumen roof underlayment
4.11	LASTOBOND Smooth Seal HT	ASTM D1970	Gulfport, MS Wadsworth, OH	self-adhering, glass-mat reinforced, film-surfaced, SBS modified bitumen roof underlayment
4.12	Tri-Built Smooth HT S/A Underlayment	ASTM D1970	Gulfport, MS Wadsworth, OH	self-adhering, glass-mat reinforced, film-surfaced, SBS modified bitumen roof underlayment
4.13	PrimeSource Grip-Rite Smooth Seal HT	ASTM D1970	Gulfport, MS Wadsworth, OH	self-adhering, glass-mat reinforced, film-surfaced, SBS modified bitumen roof underlayment
4.14	RESISTO LB1236	ASTM D1970	Drummondville, QC Gulfport, MS Wadsworth, OH	self-adhering, glass-mat reinforced, sand-surfaced, SBS modified bitumen roof underlayment
4.15	TRI-BUILT Sand-R SA Shingle Underlayment	ASTM D1970	Drummondville, QC Gulfport, MS Wadsworth, OH	self-adhering, glass-mat reinforced, sand-surfaced, SBS modified bitumen roof underlayment
4.16	PrimeSource Grip-Rite Eave & Valley Protector	ASTM D1970	Drummondville, QC Gulfport, MS Wadsworth, OH	self-adhering, glass-mat reinforced, sand-surfaced, SBS modified bitumen roof underlayment
4.17	SRS TopShield ICE & WATER DEFENDER	ASTM D1970	Drummondville, QC Gulfport, MS Wadsworth, OH	self-adhering, glass-mat reinforced, sand-surfaced, SBS modified bitumen roof underlayment
4.18	RESISTO LB1244	ASTM D1970	Drummondville, QC Gulfport, MS Wadsworth, OH	self-adhering, glass-mat reinforced, sand-surfaced, SBS modified bitumen roof underlayment
4.19	MODIFIED SOPRA-G	ASTM D4601, Type II	Gulfport, MS Wadsworth, OH	Fiberglass reinforced, SBS modified asphaltic base sheet

5. LIMITATIONS:

- 5.1 This is a Building Code Evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.
- 5.2 This Evaluation Report is not for use in FBC Non-High Velocity Hurricane Zone jurisdictions (i.e., outside of Broward and Miami-Dade Counties).
- 5.3 This Evaluation Report 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.
- 5.4 This Evaluation Report does not include evaluation of fire classification. Refer to **FBC 1516** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.
- 5.5 **SOPREMA Roof Underlayments** may be used with any prepared roof cover where the product is specifically referenced within FBC 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.
- 5.6 Allowable Roof Covers:

TABLE 1: ROOF COVER OPTIONS						
FBC SECTION:	TAS 110(S10), RAS 115	TAS 110(S11), RAS 118, 119 & 120		RAS 133	TAS 110(S11)	RAS 130
UNDERLAYMENT	ASPHALT SHINGLES	CLAY AND CONCRETE TILE		METAL	SLATE OR SLATE- TYPE SHINGLES	WOOD
		Mechanical Attach	Adhesive- Set			
LASTOBOND TU HT, SRS TopShield DEFENDER TU, Tri-Built S/A HT TU Underlayment	Yes	Yes	Yes See 5.6.1	Yes	Yes	Yes
LASTOBOND Shield, LASTOBOND Pro HT-N, RESISTO SA SMOOTH PLY 40	Yes	No	No	Yes	Yes	Yes
LASTOBOND Shield HT, LASTOBOND Pro HT-S, EXCEPTIONAL HT	Yes	No	No	Yes	Yes	Yes
LASTOBOND ECO, RESISTO LB1236, TRI-BUILT Sand-R SA Shingle Underlayment, Grip-Rite Eave & Valley Protector, TopShield ICE & WATER DEFENDER, RESISTO LB1244	Yes	No	No	No	Yes	Yes
LASTOBOND Smooth Seal HT, Tri-Built Smooth HT S/A Underlayment, Grip-Rite Smooth Seal HT	Yes	No	No	Yes	Yes	Yes

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

TABLE 1A: ALLOWABLE UNDERLAYMENT / TILE-ADHESIVE COMBINATIONS ¹		
UNDERLAYMENT	ADHESIVE	FLORIDA PRODUCT APPROVAL
LASTOBOND TU HT, SRS TopShield DEFENDER TU, Tri-Built S/A HT TU Underlayment	Dupont "Tile Bond™ Roof Tile Adhesive"	FL22525
	ICP Adhesives and Sealants "Polysset® AH-160"	NOA 20-1124.07

¹ Refer to Tile Manufacturer's or Adhesive Manufacturer's Florida Product Approval for Overturning Moment Resistance Performance.

5.7 Allowable Substrates:

TABLE 2: 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, EXCEPTIONAL HT, LASTOBOND TU HT, SRS TopShield DEFENDER TU, Tri-Built S/A HT TU Underlayment, LASTOBOND ECO, RESISTO LB1236, TRI-BUILT Sand-R SA Shingle Underlayment, Grip-Rite Eave & Valley Protector, TopShield ICE & WATER DEFENDER, RESISTO LB1244, LASTOBOND Smooth Seal HT, Tri-Built Smooth HT S/A Underlayment or Grip-Rite Smooth Seal HT	self-adhering	Deck	ASTM D41	structural concrete
		Insulation	(Optional) Elastocol Stick Zero	Dens Deck Prime or SECUROCK Gypsum-Fiber Roof Board
		Base Sheet	(Optional) Elastocol Stick Zero	ASTM D226, Type II felt
LASTOBOND TU HT, SRS TopShield DEFENDER TU, Tri-Built S/A HT TU Underlayment, RESISTO LB1236, TRI-BUILT Sand-R SA Shingle Underlayment, Grip-Rite Eave & Valley Protector 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 LASTOBOND TU HT, SRS TopShield DEFENDER TU, Tri-Built S/A HT TU Underlayment, RESISTO LB1236, TRI-BUILT Sand-R SA Shingle Underlayment, Grip-Rite Eave & Valley Protector or TopShield ICE & WATER DEFENDER self-adhering underlayments, contact RESISTO technical support.

5.8 Attachment Limitations:


Refer to Section 6

5.9 Exposure Limitations:

TABLE 3: EXPOSURE LIMITATIONS

UNDERLAYMENT	PREPARED ROOF COVER INSTALLATION TYPE	MAXIMUM EXPOSURE (DAYS)
LASTOBOND Eco, RESISTO LB1236, TRI-BUILT Sand-R SA Shingle Underlayment, Grip-Rite Eave & Valley Protector, TopShield ICE & WATER DEFENDER or RESISTO LB1244	Mechanically attached	30
LASTOBOND Shield, LASTOBOND Pro HT-N, RESISTO SA SMOOTH PLY 40, LASTOBOND Shield HT, LASTOBOND Pro HT-S, EXCEPTIONAL HT, LASTOBOND Smooth Seal HT, Tri-Built Smooth HT S/A Underlayment or Grip-Rite Smooth Seal HT	Mechanically attached	90
LASTOBOND TU HT, SRS TopShield DEFENDER TU or Tri-Built S/A HT TU Underlayment	Mechanically attached or adhesive-set tile roof system	180

5.10 **Tile Slippage Limitations:** When loading roof tiles on the underlayment in direct-deck tile roof assemblies, the maximum roof slope shall be as follows. These slope limitations can only be exceeded by using battens during loading of the roof tiles.

TABLE 4: TILE SLIPPAGE LIMITATIONS FOR DIRECT-DECK TILE INSTALLATIONS				
UNDERLAYMENT	TILE PROFILE	STAGING METHOD	MAXIMUM SLOPE	
LASTOBOND TU HT, SRS TopShield DEFENDER TU, 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
				

6. INSTALLATION:

- 6.1 **SOPREMA Roof Underlayments** shall be installed in accordance with **SOPREMA** published installation instructions subject to the Limitations set forth in Section 5 herein and the specifics noted below.
- 6.2 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).

6.3 **Approved Assemblies:**

6.3.1	Deck Type 1:	Wood, Non-Insulated
	Deck Description:	Min. 19/32" plywood or wood plank
	System Type E:	Base sheet mechanically fastened to deck; underlayment adhered to base sheet
	Base Sheet:	One or more plies of FBC HVHZ Approved ASTM D226, Type II felt or MODIFIED SOPRA-G with a minimum 4-inch side lap and 6-inch end lap, mechanically fastened to deck.
	Fastening:	FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5), 6-inch o.c. at the lap-edges and 12-inch o.c. in a staggered grid-pattern between the overlaps.
	Cap Ply:	LASTOBOND TU HT, SRS TopShield DEFENDER TU or Tri-Built S/A HT TU Underlayment, self-adhering and back-nailed max. 12-inch o.c. using FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5).
	Surfacing:	FBC HVHZ Approved mechanically attached or adhesive-set tile roof system. Refer to Table 1A for allowable tile adhesives and Table 4 for tile staging limitations.

6.3.2	Deck Type 1:	Wood, Non-Insulated
	Deck Description:	Min. 19/32" plywood or wood plank
	System Type E:	Base sheet mechanically fastened to deck; underlayment adhered to base sheet
	Base Sheet:	One or more plies of FBC HVHZ Approved ASTM D226, Type II felt or MODIFIED SOPRA-G with a minimum 4-inch side lap and 6-inch end lap, mechanically fastened to deck.
	Fastening:	FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5), 6-inch o.c. at the lap-edges and 12-inch o.c. in a staggered grid-pattern between the overlaps.
	Cap Ply:	LASTOBOND Shield, LASTOBOND Pro HT-N, RESISTO SA SMOOTH PLY 40, LASTOBOND Shield HT, LASTOBOND Pro HT-S, EXCEPTIONAL HT, LASTOBOND TU HT, SRS TopShield DEFENDER TU, Tri-Built S/A HT TU Underlayment, LASTOBOND Smooth Seal HT, Tri-Built Smooth HT S/A Underlayment or Grip-Rite Smooth Seal HT, self-adhering.
	Surfacing:	FBC HVHZ Approved asphalt shingles, metal panels, metal shingles, slate, slate-type shingles, wood shakes or wood shingles.

6.3.3	Deck Type 1:	Wood, Non-Insulated
	Deck Description:	Min. 19/32" plywood or wood plank
	System Type E:	Base sheet mechanically fastened to deck; underlayment adhered to base sheet
	Base Sheet:	One or more plies of FBC HVHZ Approved ASTM D226, Type II felt or MODIFIED SOPRA-G with a minimum 4-inch side lap and 6-inch end lap, mechanically fastened to deck.
	Fastening:	FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5), 6-inch o.c. at the lap-edges and 12-inch o.c. in a staggered grid-pattern between the overlaps.
	Cap Ply:	LASTOBOND ECO, RESISTO LB1236, TRI-BUILT Sand-R SA Shingle Underlayment, Grip-Rite Eave & Valley Protector, TopShield ICE & WATER DEFENDER or RESISTO LB1244, self-adhering.
	Surfacing:	FBC HVHZ Approved asphalt shingles, slate, slate-type shingles, wood shakes or wood shingles.

7. BUILDING PERMIT REQUIREMENTS:

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

8. MANUFACTURING PLANTS:

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

9. QUALITY ASSURANCE ENTITY:

UL LLC – QUA9625; (360) 817-5512; Vinycia.Seman@ul.com

- END OF EVALUATION REPORT -