



**NEMO|etc.**

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ENGINEER

EVALUATE

TEST

CONSULT

**EVALUATION REPORT**

**Soprema, Inc.**  
1640 rue Haggerty  
Drummondville, Québec J2C 5P8 Canada  
**(819) 478-2400**

**Evaluation Report S18010.06.09-R19**  
**FL2569-R21**  
**Date of Issuance: 06/15/2009**  
**Revision 19: 12/16/2020**

**SCOPE:**

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

**DESCRIPTION: Soprema Roof Underlayments**

**LABELING:** Labeling shall be in accordance with the requirements of 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.

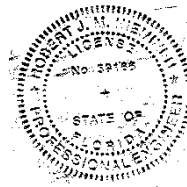
**ADVERTISEMENT:** The Florida Product Approval Number (FL#) preceded by the words "NEMO|etc. Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

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

This Evaluation Report consists of pages 1 through 9.

**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 12/16/2020. 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

**Compliance Statement:** **Soprema Roof Underlayments**, as produced by **Soprema**, have demonstrated compliance with the following sections of the **7<sup>th</sup> Edition (2020) Florida Building Code** through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

**2. STANDARDS:**

<b>Section</b>	<b>Property</b>	<b>Standard</b>	<b>Year</b>
1504.3.1	Wind resistance	FM 4474	2011
1504.3.1	Wind resistance	UL 1897	2015
1507.1.1, 1507.2.4, 1507.2.9.2 / R905.1.1, R905.2.8.2	Material standard	ASTM D1970	2015
1507.3.3 / R905.3.3	Material standard	FRSA/TRI, Sixth Edition	2018
1507.11.2 / R905.11.2	Material standard	ASTM D6163	2015
TAS 110	Accelerated Weathering	ASTM D4798	2011

**3. REFERENCES:**

<b>Entity</b>	<b>Examination</b>	<b>Reference</b>	<b>Date</b>
ERD (TST6049)	Wind Resistance	2778.07.05	07/15/2005
ERD (TST6049)	ASTM D1970 / TAS 110 (QC)	S31370.03.10-1-R1	04/07/2010
ERD (TST6049)	FRSA/TRI 04-12 (OH)	S11150.05.09-R2	10/05/2010
ERD (TST6049)	ASTM D1970 (OH)	S37210.11.11	11/09/2011
ERD (TST6049)	ASTM D1970 (MS)	S37210.12.11	12/01/2011
ERD (TST6049)	ASTM D1970 (MS)	S40540.02.13-1	02/19/2013
ERD (TST6049)	FRSA/TRI 04-12 (MS)	S43530.02.14-1-R1	02/21/2014
ERD (TST6049)	ASTM D1970 (BC)	S44870.04.14-2	04/02/2014
ERD (TST6049)	ASTM D1970 (QC)	S44870.04.14-3	04/02/2014
ERD (TST6049)	ASTM D1970 (OH)	S44870.04.14-1	04/10/2014
ERD (TST6049)	ASTM D1970 (MS)	S44870.04.14-4	04/10/2014
ERD (TST6049)	ASTM D1970 (OH)	S40540.10.14	10/31/2014
ERD (TST6049)	Tensile Adhesion / Long Term Aging	SOPC-SC7645.02.15	02/13/2015
ERD (TST6049)	Accelerated Weathering	SOPC-SC8520.04.14	04/27/2015
ERD (TST6049)	Wind Resistance	SOPC-SC14045.05.17-R1	06/07/2017
M-D (CER1592)	HVHZ Compliance	18-0329.03	06/28/2018
ICC-ES (EVL2396)	2015 IBC Compliance	ESR-1524	03/01/2017
NEMO (TST6049)	ASTM D1970 / TAS 110 (QC)	SOPC-SC8970.08.15-R1	04/25/2018
NEMO (TST6049)	Wind Resistance	4-SOPC-18-003.08.18	08/27/2018
NEMO (TST6049)	ASTM D4798/D1970 (OH & MS)	4S-SOPC-18-002.05.19.A	05/31/2019
NEMO (TST6049)	Tensile Adhesion / Long Term Aging	4p-DOW-19-SSLAP-01.A.R2	02/10/2020
NEMO (TST6049)	Peel adhesion (existing underlayments)	4j-SOPC-19-SSUDL-04.A	03/12/2020
NEMO (TST6049)	Peel adhesion (existing underlayments)	4j-SOPC-20-SSUDL-01	12/16/2020
PRI (TST5878)	ASTM D1970 (MS)	SOP-064-02-01	12/03/2013
Soprema, Inc. (PDM3511)	Equivalency Declaration	SA SMOOTH PLY 40	06/29/2015
UL, LLC (QUA9625)	Quality Control	MLA File No. R16814	12/10/2015
UL, LLC (QUA9625)	Quality Control	MLA File No. R27605	05/08/2019
UL, LLC (QUA9625)	Quality Control	Service Confirmation	06/29/2020
UL, LLC (QUA9625)	Quality Control	Florida BCIS	Current

**4. PRODUCT DESCRIPTION:**

	<b>Product</b>	<b>Material Standard</b>	<b>Plant(s)</b>	<b>Description</b>
4.1	Lastobond TU HT	ASTM D1970 and FRSA/TRI 09-18	Gulfport, MS	self-adhering, non-woven polyester fabric surfaced, SBS modified bitumen roof underlayment
4.2	Tri-Built S/A HT TU Underlayment	ASTM D1970 and FRSA/TRI 09-18	Gulfport, MS	self-adhering, non-woven polyester fabric surfaced, SBS modified bitumen roof underlayment
4.3	Lastobond Shield	ASTM D1970	Drummondville, QC	self-adhering, woven polyethylene surfaced, SBS modified bitumen roof underlayment available in two widths; 36 and 45 inch
4.4	RESISTO SA SMOOTH PLY 40	ASTM D1970	Drummondville, QC	self-adhering, woven polyethylene surfaced, SBS modified bitumen roof underlayment
4.5	Lastobond Shield HT	ASTM D1970	Drummondville, QC	self-adhering, woven polyethylene surfaced, high temperature, SBS modified bitumen roof underlayment
4.6	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
4.7	Lastobond Pro HT-S	ASTM D1970	Drummondville, QC	self-adhering, woven polyethylene surfaced, high temperature, SBS modified bitumen roof underlayment
4.8	EnviroShield	ASTM D1970	Drummondville, QC	self-adhering, woven polyethylene surfaced, high temperature, SBS modified bitumen roof underlayment
4.9	Lastobond 195	ASTM D1970	Gulfport, MS Wadsworth, OH	self-adhering, glass-mat reinforced, sand-surfaced, SBS modified bitumen roof underlayment
4.10	Lastobond Eaves Protection Sheet	ASTM D1970	Gulfport, MS Wadsworth, OH	self-adhering, glass-mat reinforced, sand-surfaced, SBS modified bitumen roof underlayment
4.11	Lastobond Eco	ASTM D1970	Drummondville, QC Gulfport, MS Wadsworth, OH	self-adhering, glass-mat reinforced, sand-surfaced, SBS modified bitumen roof underlayment
4.12	Lastobond Smooth Seal HT	ASTM D1970	Gulfport, MS Wadsworth, OH	self-adhering, glass-mat reinforced, film-surfaced, SBS modified bitumen roof underlayment
4.13	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
4.14	PrimeSource Grip-Rite Smooth Seal HT	ASTM D1970	Gulfport, MS Wadsworth, OH	self-adhering, glass-mat reinforced, film-surfaced, SBS modified bitumen roof underlayment
4.15	RESISTO LB1236	ASTM D1970	Drummondville, QC Gulfport, MS Wadsworth, OH	self-adhering, glass-mat reinforced, sand-surfaced, SBS modified bitumen roof underlayment
4.16	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

	Product	Material Standard	Plant(s)	Description
4.17	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
4.18	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
4.19	RESISTO LB1244	ASTM D1970	Drummondville, QC Gulfport, MS Wadsworth, OH	self-adhering, glass-mat reinforced, sand-surfaced, SBS modified bitumen roof underlayment
4.20	Colphene FR GR	ASTM D6163	Gulfport, MS Wadsworth, OH	self-adhering, fiberglass reinforced, granule-surfaced, SBS modified bitumen roof underlayment

## 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 High Velocity Hurricane Zone jurisdictions (i.e., 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 1505** 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:	1507.2	1507.3		1507.4 & 1507.5		1507.7	1507.8 & 1507.9
Underlayment	Asphalt Shingles	Clay and Concrete Tile		Metal		Slate or Slate-Type Shingles	Wood Shakes or Shingles
		Mechanical Attach	Adhesive-Set	Panels	Shingles		
Lastobond TU HT, Tri-Built S/A HT TU Underlayment	Yes	Yes	Yes See 5.6.1	Yes	Yes	Yes	Yes (joint strips, 1507.1.1.3 / R905.1.1.3)
Lastobond Shield, Pro HT-N, RESISTO SA SMOOTH PLY 40	Yes	No	No	No	No	Yes	Yes (joint strips, 1507.1.1.3 / R905.1.1.3)
Lastobond Shield HT, Pro HT-S	Yes	No	No	Yes	Yes	Yes	Yes (joint strips, 1507.1.1.3 / R905.1.1.3)
EnviroShield	Yes	No	No	Yes	Yes	Yes	Yes (joint strips, 1507.1.1.3 / R905.1.1.3)
Lastobond Eaves Protection Sheet, Lastobond 195	Yes	No	No	No	No	Yes	Yes (joint strips, 1507.1.1.3 / R905.1.1.3)

TABLE 1: ROOF COVER OPTIONS							
FBC Section:	1507.2	1507.3		1507.4 & 1507.5		1507.7	1507.8 & 1507.9
Underlayment	Asphalt Shingles	Clay and Concrete Tile		Metal		Slate or Slate-Type Shingles	Wood Shakes or Shingles
		Mechanical Attach	Adhesive-Set	Panels	Shingles		
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	No	Yes	Yes (joint strips, 1507.1.1.3 / R905.1.1.3)
Lastobond Smooth Seal HT, Tri-Built Smooth HT S/A Underlayment, Grip-Rite Smooth Seal HT	Yes	No	No	Yes	Yes	Yes	Yes (joint strips, 1507.1.1.3 / R905.1.1.3)
Colphene FR GR	Yes	Yes	No	No	No	Yes	Yes (joint strips, 1507.1.1.3 / R905.1.1.3)

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

TABLE 1A: ALLOWABLE TILE ADHESIVE / UNDERLAYMENT COMBINATIONS <sup>1</sup>		
Underlayment	Adhesive	Florida Product Approval
Lastobond TU HT, Tri-Built S/A HT TU Underlayment	Dupont "Tile Bond™ Roof Tile Adhesive"	FL22525
	ICP Adhesives and Sealants "Polyset® AH-160"	FL6332

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, EnviroShield, Lastobond TU HT, Tri-Built S/A HT TU Underlayment, Lastobond Eaves Protection Sheet, Lastobond 195, 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 / sheathing	(Optional) ASTM D41, Elastocol Stick, Elastocol Stick Zero	plywood, OSB or Southern Yellow Pine (SYP)
			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 or Modified Sopra-G
Colphene FR GR	self-adhering	Deck / sheathing	(Optional) ASTM D41	Plywood
			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 or Modified Sopra-G

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

**TABLE 2: SUBSTRATE OPTIONS FOR ADHERED UNDERLAYMENTS**

Underlayment	Application	Substrates (designed to meet wind loads for project)		
		Type	Primer	Material(s)
Lastobond TU HT, 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, 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.

5.7.1 Soprema recommends priming with Elastocol Stick, Elastocol 600c or RESISTO EXTERIOR PRIMER if the final roof cover is not slated for installation within 24 hours.

5.7.2 Soprema requires tongue-and-groove board decking be covered with plywood or OSB prior to installation of the self-adhering underlayment

**5.8 Attachment Limitations:**

5.8.1 For use under mechanically attached NON-TILE prepared roof coverings, attachment shall be in accordance with the manufacturer’s installation instructions, but – for mechanically attached underlayments or base sheets - not less than **FBC 1507.1.1** or **R905.1.1**.

5.8.2 For use under tile roof systems, attachment shall be in accordance with the manufacturer’s installation instructions, but – for mechanically attached base sheets - not less than:

- **FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition, Appendix A, Table 1 (for Two-Ply Asphalt Applied Hot Mop Underlayment)
- or
- Section 5.8.3 herein (for other underlayment systems).

**5.8.3 Wind Resistance for Underlayment Systems in Tile Roof Applications:**

The following wind uplift limitations apply to underlayment systems that are not prescriptive in the **FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition. The 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).

**5.8.3.1 Direct-to-Deck:**

The maximum design pressure for the selected assembly shall meet or exceed that required under **FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition, Appendix A, Table 1A or the critical (highest) design pressure determined in accordance with **FBC 1609** or **FBC Residential Chapter 3**.

**#1 Maximum Design Pressure = -45.0 psf:**

Deck: Min. 15/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.  
 Primer: (Optional) Elastocol Stick, Elastocol Stick Zero or RESISTO EXTERIOR PRIMER  
 Underlayment: Lastobond TU HT, Tri-Built S/A HT TU Underlayment, self-adhered.

**#2 Maximum Design Pressure = -67.5 psf:**

Deck: Structural concrete to meet project requirements to satisfaction of Authority Having Jurisdiction.  
 Primer: Elastocol Stick Zero  
 Underlayment: Lastobond TU HT, Tri-Built S/A HT TU Underlayment, self-adhered.

#3 **Maximum Design Pressure = -120.0 psf:**

- Deck: Min. 15/32-inch APA-rated CDX plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
- Primer: (Optional) RESISTO EXTERIOR PRIMER
- Base Ply: RESISTO SA SMOOTH PLY 40, self-adhered.
- Underlayment: Lastobond TU HT, Tri-Built S/A HT TU Underlayment, self-adhered.

#4 **Maximum Design Pressure = -150.0 psf:**

- Deck: Min. 15/32-inch APA-rated BCX plywood (may be installed C-side up) to meet project requirements to satisfaction of Authority Having Jurisdiction.
- Primer: (Optional) RESISTO EXTERIOR PRIMER
- Underlayment: Lastobond TU HT, Tri-Built S/A HT TU Underlayment, self-adhered.

#5 All other direct-deck, adhered underlayment systems beneath tile roof systems carry a Maximum Design Pressure of -45 psf.

5.8.3.2 **Mechanically-Attached Base Sheet:**

The maximum design pressure for the selected assembly shall meet or exceed that required under **FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual**, Sixth Edition, Appendix A, Table 1A or the critical (highest) design pressure determined in accordance with **FBC 1609** or **FBC Residential Chapter 3**.

Alternatively, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 design pressure determined in accordance with **FBC 1609** or **FBC Residential Chapter 3**. 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, Roofing Application Standard RAS 117 and Roofing Application Standard RAS 137. Assemblies marked with an asterisk\* carry the limitations set forth in Section 2.2.10.1 of FM Loss Prevention Data Sheet 1-29 (February 2020) for enhancements.

#6 **Maximum Design Pressure = -60.0 psf:**


- Deck: Min. 19/32-inch plywood to meet project requirements to satisfaction of Authority Having Jurisdiction.
- Base Sheet: Modified Sopra-G mechanically attached with nails (FBC 1517.5.1) and tin caps (FBC 1517.5.2) spaced 6-inch o.c. at the 4-inch laps and 6-inch o.c. in three (3), equally spaced rows in the center of the sheet.
- Underlayment: Lastobond TU HT, Tri-Built S/A HT TU Underlayment, self-adhered

5.8.4 For use over insulation or coverboard and under mechanically attached prepared roof coverings, underlayment attachment shall be in accordance with the manufacturer's installation instructions and attachment of the insulation or coverboard shall be in accordance with the prepared roof covering manufacturer's Product Approval.

5.9 **Exposure Limitations:**

TABLE 3: EXPOSURE LIMITATIONS		
Underlayment	Prepared Roof Cover Installation Type	Maximum Exposure (days)
Lastobond Eaves Protection Sheet, Lastobond 195, 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 TU HT, Tri-Built S/A HT TU Underlayment	Adhesive-set tile roof system	30
Lastobond Shield, Lastobond Pro HT-N, RESISTO SA SMOOTH PLY 40, Lastobond Shield HT, Lastobond Pro HT-S, EnviroShield, Lastobond Smooth Seal HT, Tri-Built Smooth HT S/A Underlayment or Grip-Rite Smooth Seal HT	Mechanically attached	90
Lastobond TU HT, Tri-Built S/A HT TU Underlayment or Colphene FR GR	Mechanically attached	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, Tri-Built S/A HT TU Underlayment	Flat	Max. 10-tile stack	6:12
	Lugged	Max. 10-tile stack	5:12
	Lugged	Max. 10-tile stack (bottom 2-tile stack shall be inverted, followed by 8 tiles high on slope, as shown below)	6:12
			
Colphene FR GR	Flat	Max. 10-tile stack	5:12
	Lugged	Max. 10-tile stack	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).
- 6.2.1 Installation of RESISTO LB1236, TRI-BUILT Sand-R SA Shingle Underlayment, Grip-Rite Eave & Valley Protector or TopShield ICE & WATER DEFENDER self-adhering underlayment in a reroof (tear-off) application atop an existing underlayment (per Table 2) requires priming of the existing substrate with RESISTO EXTERIOR PRIMER. 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 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.

**6.3 Lastobond TU HT, Tri-Built S/A HT TU Underlayment, Lastobond Shield, Lastobond Pro HT-N, RESISTO SA SMOOTH PLY 40, Lastobond Shield HT, Lastobond Pro HT-S, EnviroShield, Lastobond Eaves Protection Sheet, Lastobond 195, Lastobond Eco, Lastobond Smooth Seal HT, Tri-Built Smooth HT S/A Underlayment, Grip-Rite Smooth Seal HT, RESISTO LB1236, TRI-BUILT Sand-R SA Shingle Underlayment, Grip-Rite Eave & Valley Protector, TopShield ICE & WATER DEFENDER, RESISTO LB1244 or Colphene FR GR:**

6.3.1 **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 **1507.1.1.3** or **FBC Residential R905.1.1.1** or **R905.1.1.3** 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 FBC Approved ASTM D226, Type II felt the base sheet shall be fastened in accordance with **FBC 1507.1.1** or **R905.1.1**.



6.3.2 Tile Applications:

Limited to Lastobond TU HT, Tri-Built S/A HT TU Underlayment or Colphene FR GR.

Shall be installed in compliance with the requirements for Self-Adhered Membrane set forth in FRSA/TRI *Florida High Wind Concrete and Clay Roof Tile Installation Manual*, Sixth Edition and the manufacturer's installation instructions.

Refer to Section 5.8.3 herein for attachment limitations.

Refer to Table 4 herein for tile staging limitations.

**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; (314) 578-3406; k.chancellor@us.ul.com

**- END OF EVALUATION REPORT -**