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

ENGINEER TEST CONSULT

P.E. EVALUATION REPORT (PEER)

Beacon Sales Acquisition, Inc.
505 Huntmar Park Drive, Suite 300
Herndon, VA 20170
(610) 893-5400

PEER-CTRBSA-002.B.R2
FL30541-R6 (HVHZ)
Date of Issuance: 09/29/2023
Revision 2: 04/17/2025

SCOPE:
This P.E. Evaluation Report (henceforth 'PEER') is issued under **F.A.C. 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 **8th Edition (2023) Florida Building Code, High Velocity Hurricane Zone** sections noted herein.

DESCRIPTION: TRI-BUILT Roof Underlayments (HVHZ)

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

ADVERTISEMENT: "NEMO P.E. Evaluated" may be displayed in advertising literature. If any portion of the PEER is displayed, then it shall be in its entirety.

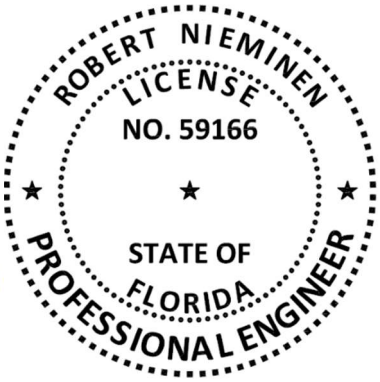
INSPECTION: Upon request, a copy of this entire PEER shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This PEER consists of pages 1 through 9.

Prepared by:

Digitally signed by Robert Nieminen
Date: 2025.04.17 '15:46:04 -04'00

This item has been digitally signed and sealed by Robert Nieminen, P.E.
Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.
Robert Nieminen, Florida P.E. 59166, FBC ANE1983
NEMO ETC, LLC, Florida CA #32455



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

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2022 FBC HVHZ

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: **TRI-BUILT Roof Underlayments**, as produced by **Beacon Sales Acquisition, Inc.**, have demonstrated compliance with the following sections of the **8th Edition (2023) Florida Building Code, High Velocity Hurricane Zone (HVHZ)** through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations of Use set forth herein.

2. STANDARDS:

SECTION	PROPERTY	STANDARD
TAS 110	Material standard	ASTM D1970
TAS 110	Material standard	TAS 103
TAS 110	Material standard	ASTM D4601
TAS 110	Material standard	ASTM D6164
TAS 110	Material standard	ASTM D6222
TAS 110	Accelerated Weathering	ASTM D4798

3. REFERENCES:

ENTITY	EXAMINATION	REFERENCE	DATE
NEMO (TST6049)	TAS 103	4j-CTR-23-SSUDL-01.A	03/07/2025
NEMO (TST6049)	ASTM D1970	4q-CTR-SSMBB-002.A	01/06/2025
NEMO CERT (EVL13843)	NER	NER-CTR-002.R1	05/29/2024
NEMO	Traceability	FBC Product Cross Listing 1	09/27/2023
NEMO	Traceability	FBC Product Cross Listing 2	09/27/2023
UL, LLC. (QUA9625)	Quality Control	Service Confirmation	11/13/2019
UL, LLC. (QUA9625)	Quality Control	Florida BCIS	current

4. PRODUCT DESCRIPTION:

TABLE 1: EVALUATED UNDERLAYMENTS

PRODUCT	MATERIAL STANDARD	PLANT(S)	DESCRIPTION
TRI-BUILT Fiberglass Base Sheet 3SQ	ASTM D4601	Pryor, OK Shafter, CA	mechanically attached, glass-mat reinforced, asphaltic base sheet for use in multi-ply underlayment systems
TRI-BUILT SA NailBase	ASTM D4601	Little Rock, AR	Mechanically attached, glass-mat reinforced, film-surfaced, SBS modified bitumen base sheet for use in multi-ply underlayment systems
TRI-BUILT SAT Base	ASTM D1970	Pryor, OK Shakopee, MN	self-adhering, glass mat reinforced, fine-mineral surfaced, SBS modified membrane
TRI-BUILT SA Cap	ASTM D1970 ASTM D6164 TAS 103	Little Rock, AR	self-adhering, polyester reinforced, granule-mineral surfaced, SBS modified membrane
TRI-BUILT Granulated Torch	ASTM D6222 TAS 103 (partial)	Little Rock, AR	torch-applied, polyester reinforced, granule-surfaced, APP modified membrane
TRI-BUILT SBS Cap	ASTM D6164 TAS 103 (partial)	Little Rock, AR	asphalt-applied, polyester reinforced, granule-surfaced, SBS modified membrane

2023 FBC HVHZ

5. LIMITATIONS:

5.1 This is a building code evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this PEER, or previous versions thereof, is/was used for permitting or design guidance. PEERs are not to be construed as representing any attributes not specifically listed, nor are PEERs to be construed as an endorsement of the subject, or a recommendation for its use. There is no warranty by NEMO ETC, LLC or Robert Nieminen, P.E., express or implied, as to any finding or other matter in this PEER, or as to any product covered by the PEER.

5.2 This PEER is exclusively for use in FBC High Velocity Hurricane Zone jurisdictions, as defined in FBC Chapter 2 (Broward and Miami-Dade Counties).

5.3 This PEER 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 PEER 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 **TRI-BUILT 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 2: ROOF COVER OPTIONS

FBC HVHZ:	*RAS 115*	*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- OR MORTAR-SET			
TRI-BUILT SAT Base	Yes	No	No	No	Yes	Yes[1]
TRI-BUILT SA Cap	Yes	Yes	Yes (Table 2A)	No	Yes	No
TRI-BUILT Granulated Torch	No	Yes	Yes (Table 2A)	No	No	No
TRI-BUILT SBS Cap	No	Yes	Yes (Table 2A)	No	No	No

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

TABLE 2A: ALLOWABLE UNDERLAYMENT / TILE-ADHESIVE OR MORTAR COMBINATIONS[2]

UNDERLAYMENT	ADHESIVE / MORTAR	FBC HVHZ
TRI-BUILT SA Cap or TRI-BUILT SBS Cap	Dupont de Nemours "Tile Bond™ Roof Tile Adhesive"	22-0614.05
TRI-BUILT SA Cap, TRI-BUILT Granulated Torch or TRI-BUILT SBS Cap	ICP Construction "Polyset® AH-160"	23-0614.01
TRI-BUILT SA Cap	ICP Construction "APOC® Polyset® RTA-1"	22-0614.08
TRI-BUILT SA Cap, TRI-BUILT Granulated Torch or TRI-BUILT SBS Cap	Mortar holding current Florida HVHZ Product Approval.	

[1] *Used atop ASTM D226, Type II felt, or equivalent base sheet, mechanically attached in accordance with FBC HVHZ Table 1518.2.1.*

[2] *Refer to Tile Manufacturer's or Adhesive Manufacturer's Florida Product Approval or NOA for Overturning Moment Resistance Performance*

5.7 Allowable Substrates:

TABLE 3: SUBSTRATE OPTIONS FOR ADHERED UNDERLAYMENTS				
UNDERLAYMENT	APPLICATION	SUBSTRATES (DESIGNED TO MEET WIND LOADS FOR PROJECT)		
		TYPE	PRIMER	MATERIAL(S)
TRI-BUILT SAT Base	Self-adhering	Deck / sheathing	(Optional) ASTM D41	plywood
			ASTM D41	structural concrete
		Base Sheet	None	TRI-BUILT Fiberglass Base Sheet 3SQ or Approved, ASTM D226 Type II or ASTM D4869 Type III or IV
TRI-BUILT SA Cap	Self-adhering	Deck / sheathing	(Optional) ASTM D41	plywood
			ASTM D41	structural concrete
		Base Sheet	None	TRI-BUILT Fiberglass Base Sheet 3SQ, TRI-BUILT SA NailBase or Approved, ASTM D226 Type II or ASTM D4869 Type III or IV
		Base Ply	None	TRI-BUILT SA PlyBase
TRI-BUILT SBS Cap	Hot asphalt	Deck	ASTM D41	structural concrete
		Base Sheet	None	TRI-BUILT Fiberglass Base Sheet 3SQ or Approved, ASTM D226 Type II
		Base Ply	None	TRI-BUILT SAT Base
TRI-BUILT Granulated Torch	Torch-applied	Deck	ASTM D41	structural concrete
		Base Ply	None	TRI-BUILT SAT Base, TRI-BUILT SA Plybase

5.8 **Attachment Limitations:**

5.8.1 Refer to Section 6 for codified prescriptive systems.

5.8.2 Refer to Tables 4A and 4B for underlayment systems which have documented compliance with Section 7 of TAS 103. 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 has already been applied). No extrapolation or rational analysis is permitted for assemblies marked with an asterisk*.

5.8.3 Unless otherwise noted, referenced back-nailing shall utilize corrosion resistant "nails and tin caps" meeting the specifications set forth in **FBC HVHZ 1517.5**.

TABLE 4A: ALLOWABLE DESIGN PRESSURES, ADHERED, DIRECT-TO-DECK UNDERLAYMENT SYSTEMS						
For wood deck, referenced back-nailing shall utilize corrosion resistant "nails and tin caps" meeting the specifications set forth in **FBC HVHZ 1517.5**.						
SYSTEM NO.	DECK	PRIMER	JOINT TREATMENT	BASE PLY	CAP PLY	MDP (PSF)
UDL-1.	**New:** Plywood, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category **Reroof:** Plywood, APA rated sheathing, 32/16, Exposure 1, PS1, 15/32 category	(Optional) ASTM D41	None	(Optional) TRI-BUILT SA Plybase, self-adhered and back-nailed max. 12-inch o.c.	TRI-BUILT SA Cap, self-adhered and back-nailed max. 12-inch o.c.	-105.0*
UDL-2.	**Plywood**, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category	ASTM D41	TRI-BUILT SA Plybase	(Optional) TRI-BUILT SA Plybase, self-adhered and back-nailed max. 12-inch o.c.	TRI-BUILT SA Cap, self-adhered and back-nailed max. 12-inch o.c.	-127.5*
UDL-3.	**New:** Plywood, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category **Reroof:** Plywood, APA rated sheathing, 32/16, Exposure 1, PS1, 15/32 category	(Optional) ASTM D41	None	TRI-BUILT SA Plybase, self-adhered and back-nailed max. 12-inch o.c.	TRI-BUILT SA Cap, self-adhered and back-nailed max. 12-inch o.c.	-127.5*
UDL-4.	**Plywood**, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category	None	None	None	TRI-BUILT SA Cap, self-adhered and back-nailed max. 12-inch o.c.	-217.5*
UDL-5.	Structural concrete	ASTM D41	N/A	TRI-BUILT SAT Base, self-adhered and back-nailed using FBC HVHZ Approved fasteners and plates max. 12-inch o.c.	TRI-BUILT SBS Cap, applied in hot asphalt and back-nailed using FBC HVHZ Approved fasteners and plates max. 12-inch o.c.	-240.0*

TABLE 4A: ALLOWABLE DESIGN PRESSURES, ADHERED, DIRECT-TO-DECK UNDERLAYMENT SYSTEMS						
For wood deck, referenced back-nailing shall utilize corrosion resistant "nails and tin caps" meeting the specifications set forth in FBC HVHZ 1517.5.						
SYSTEM NO.	DECK	PRIMER	JOINT TREATMENT	BASE PLY	CAP PLY	MDP (PSF)
UDL-6.	Structural concrete	ASTM D41 primer	N/A	TRI-BUILT SAT Base or TRI-BUILT SA Plybase, self-adhered and back-nailed using FBC HVHZ Approved fasteners and plates max. 12-inch o.c.	TRI-BUILT Granulated Torch, torch-applied and back-nailed using FBC HVHZ Approved fasteners and plates max. 12-inch o.c.	-240.0*
UDL-7.	Structural concrete	ASTM D41 primer	N/A	(Optional) TRI-BUILT SA Plybase, self-adhered and back-nailed using FBC HVHZ Approved fasteners and plates max. 12-inch o.c.	TRI-BUILT SA Cap, self-adhered and back-nailed using FBC HVHZ Approved fasteners and plates max. 12-inch o.c.	-240.0*

TABLE 4B: ALLOWABLE DESIGN PRESSURES, MECHANICALLY ATTACHED, MULTI-PLY UNDERLAYMENT SYSTEMS							
*Nails shall be corrosion resistant and be of sufficient length to penetrate through the sheathing by min. 3/16-inch							
Referenced back-nailing shall utilize corrosion resistant "nails and tin caps" meeting the specifications set forth in FBC HVHZ 1517.5.							
SYSTEM NO.	DECK	BASE SHEET			BASE PLY	CAP PLY	MDP (PSF)
		TYPE	FASTENERS	ATTACH			
UDL-8.	**Plywood**, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category	TRI-BUILT Fiberglass Base Sheet 3SQ	12 ga. annular ring shank nails* through 32ga., 1-5/8-inch diameter tin caps	6-inch o.c. at the min. 4-inch laps and 9-inch o.c. at three (3) equally spaced center rows	None	TRI-BUILT SBS Cap, applied in hot asphalt and back-nailed max 12-inch o.c.	-45.0
UDL-9.	**Plywood**, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category	One (1) layer, FBC HVHZ Approved ASTM D226 Type II	12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps	6-inch o.c. at the min. 4-inch laps and 9-inch o.c. at three (3) equally spaced, staggered center rows	None	TRI-BUILT SBS Cap, applied in hot asphalt and back-nailed max. 12-inch o.c.	-52.5
UDL-10.	**Plywood**, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category	TRI-BUILT SA NailBase	12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps	8-inch o.c. at the min. 2-inch laps and 8-inch o.c. at three (3) equally spaced, staggered center rows	(Optional) TRI-BUILT SA Plybase, self-adhered and back-nailed max. 12-inch o.c.	TRI-BUILT SA Cap, self-adhered and back-nailed max. 12-inch o.c.	-60.0
UDL-11.	**Plywood**, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category	TRI-BUILT SA NailBase	12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps	6-inch o.c. at the min. 2-inch laps and 6-inch o.c. at four (4) equally spaced, staggered center rows	(Optional) TRI-BUILT SA Plybase, self-adhered and back-nailed max. 12-inch o.c.	TRI-BUILT SA Cap, self-adhered and back-nailed max. 12-inch o.c.	-75.0

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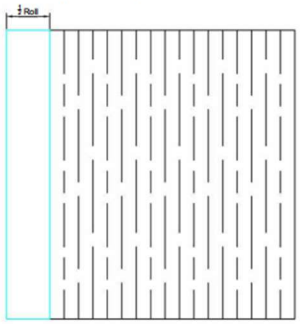
TABLE 4B: ALLOWABLE DESIGN PRESSURES, MECHANICALLY ATTACHED, MULTI-PLY UNDERLAYMENT SYSTEMS

*Nails shall be corrosion resistant and be of sufficient length to penetrate through the sheathing by min. 3/16-inch

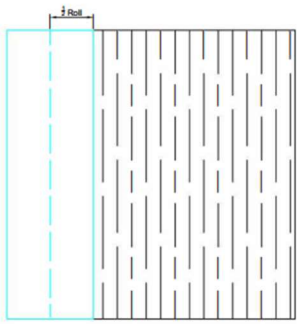
Referenced back-nailing shall utilize corrosion resistant "nails and tin caps" meeting the specifications set forth in FBC HVHZ 1517.5.

SYSTEM NO.	DECK	BASE SHEET			BASE PLY	CAP PLY	MDP (PSF)
		TYPE	FASTENERS	ATTACH			
UDL-12.	**Plywood**, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category	Double-layer application, FBC HVHZ Approved ASTM D226 Type II**	12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps	Start 6-inch o.c. with centerline 1-inch from the start-edge, followed by one (1) row in the centerline of the half-width, 9-inch o.c. Repeat this pattern of 6, 9, at the lap-edge and center-row, respectively.	None	TRI-BUILT SBS Cap, applied in hot asphalt and back-nailed max. 12-inch o.c.	-82.5
	** Base sheet applied in double-layer application:						
UDL-13.	**Plywood**, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category	TRI-BUILT SA NailBase	12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps	4-inch o.c. at the min. 2-inch laps and 4-inch o.c. at four (4) equally spaced, staggered center rows	(Optional) TRI-BUILT SA Plybase, self-adhered and back-nailed max. 12-inch o.c.	TRI-BUILT SA Cap, self-adhered and back-nailed max. 12-inch o.c.	-105.0
UDL-14.	**Plywood**, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category	One (1) layer, FBC HVHZ Approved ASTM D226 Type II	12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps	4-inch o.c. at the min. 4-inch laps and 4-inch o.c. at four (4) equally spaced, staggered center rows	None	TRI-BUILT SBS Cap, applied in hot asphalt and back-nailed max. 12-inch o.c.	-157.5

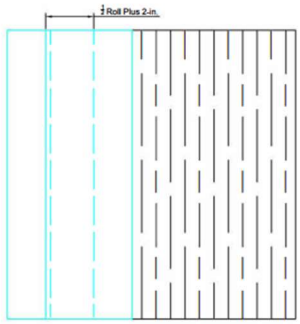
Apply a strip of base sheet for the first course that is half the width of a full sheet, fastened sufficiently to hold in place.



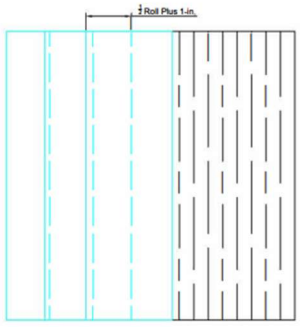
Apply a full sheet of base sheet for the second course, fully overlapping the first half-width course.



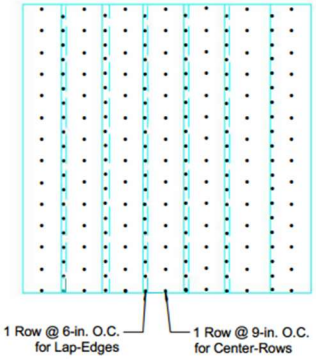
Apply the third course of base sheet overlapping the second course half the width of a full sheet plus 2 inches.



Overlap all successive courses half the width of a full sheet plus 1 inch.



Fastening: 12 ga. annular ring shank nails with 32 ga., 1-5/8-inch diameter tin caps; start 6-inch o.c. with centerline 1-inch from the start-edge, followed by one (1) row in the centerline of the half-width, 9-inch o.c. Repeat this pattern of 6, 9 at the lap-edge and center-row, respectively.



TRI-BUILT SBS Cap, applied in ASTM D312, Type IV hot asphalt and back-nailed using 12 ga. annular ring shank nails with 32 ga., 1-5/8-inch diameter tin caps, max. 12-inch o.c.

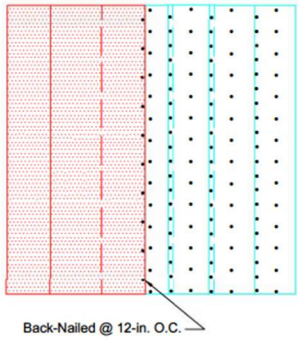


TABLE 4B: ALLOWABLE DESIGN PRESSURES, MECHANICALLY ATTACHED, MULTI-PLY UNDERLAYMENT SYSTEMS

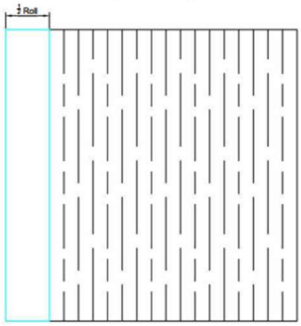
*Nails shall be corrosion resistant and be of sufficient length to penetrate through the sheathing by min. 3/16-inch

Referenced back-nailing shall utilize corrosion resistant "nails and tin caps" meeting the specifications set forth in FBC HVHZ 1517.5.

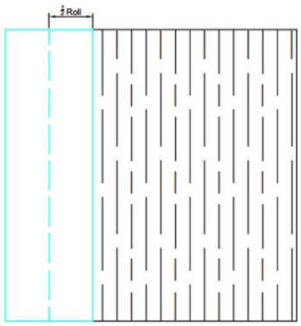
SYSTEM NO.	DECK	BASE SHEET			BASE PLY	CAP PLY	MDP (PSF)
		TYPE	FASTENERS	ATTACH			
UDL-15.	**Plywood**, APA rated sheathing, 40/20, Exposure 1, PS1, 19/32 category	Double-layer application, FBC HVHZ Approved ASTM D226 Type II**	12 ga. annular ring shank nails* through 32 ga., 1 5/8-inch diameter tin caps	start 4-inch o.c. with centerline 1-inch from the start-edge, followed by rows spaced 8-inch o.c. with fasteners spaced 4-inch o.c.	None	TRI-BUILT SBS Cap, applied in hot asphalt and back-nailed using 12 ga. annular ring shank nails* through 32 ga., 1-5/8-inch diameter tin caps, max. 12-inch o.c.	-195.0

** Base sheet applied in double-layer application:

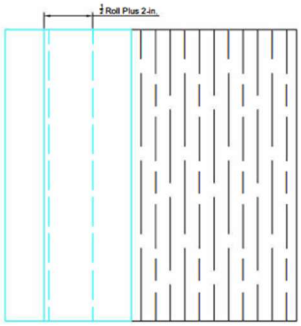
Apply a strip of base sheet for the first course that is half the width of a full sheet, fastened sufficiently to hold in place.



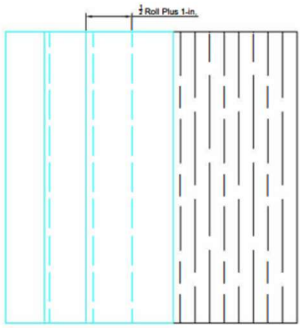
Apply a full sheet of base sheet for the second course, fully overlapping the first half-width course.



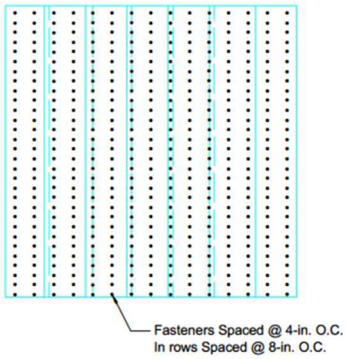
Apply the third course of base sheet overlapping the second course half the width of a full sheet plus 2 inches.



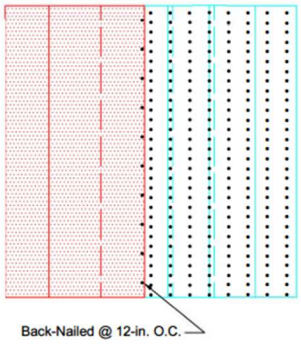
Overlap all successive courses half the width of a full sheet plus 1 inch.



Fastening: 12 ga. annular ring shank nails with 32 ga., 1-5/8-inch diameter tin caps; start 4-inch o.c. with centerline 1-inch from the start-edge, followed by rows spaced 8-inch o.c. with fasteners spaced 4-inch o.c.



TRI-BUILT SBS Cap, applied in ASTM D312, Type IV hot asphalt and back-nailed using 12 ga. annular ring shank nails with 32 ga., 1-5/8-inch diameter tin caps, max. 12-inch o.c.



5.9 Exposure Limitations:

TABLE 5: EXPOSURE LIMITATIONS

UNDERLAYMENT	PREPARED ROOF COVER INSTALLATION TYPE	MAXIMUM EXPOSURE (DAYS)
TRI-BUILT SAT Base	Mechanically attached	30
TRI-BUILT SA Cap, TRI-BUILT Granulated Torch or TRI-BUILT SBS Cap	Adhesive- or mortar-set tile	180
TRI-BUILT SA Cap, TRI-BUILT Granulated Torch or TRI-BUILT SBS Cap	Mechanically attached	UNLIMITED

5.10 Tile Slippage Limitations:

When loading roof tiles on the underlayment, the maximum roof pitch shall be as follows. These pitch limitations can only be exceeded by using battens or loading boards during loading of the roof tiles.

TABLE 6: TILE SLIPPAGE LIMITATIONS

UNDERLAYMENT	TILE PROFILE	STAGING METHOD	MAXIMUM PITCH
TRI-BUILT SBS Cap or TRI-BUILT SA Cap	All	Max. 6-tile stack (4 over 2)	4:12
TRI-BUILT Granulated Torch	Flat	Max. 10-tile stack	4:12
	Lugged	Prohibited without battens or loading boards	N/A

6. INSTALLATION:

6.1 **TRI-BUILT Roof Underlayments** shall be installed in accordance with **Beacon Sales Acquisition, Inc.** published installation instructions subject to the Limitations of Use herein and the specifics noted below.

6.1.1 Consult Beacon Sales Acquisition, Inc. requirements for back-nailing at pitch of 2:12 or greater.

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 primed the substrate (if applicable).

6.3 Refer to Section 6.4 for underlayments having prescriptive codified minimum attachment or Tables 4A and 4B for underlayment systems having maximum design pressures, determined in accordance with Section 7 of TAS 103.

6.4 Underlayment Assemblies with Prescriptive Minimum Attachment for use in NON-TILE applications:

6.4.1

CODE REFERENCE:	**1518.2.1, Option 1:** Underlayment adhered to deck
DECK DESCRIPTION:	Code-minimum deck to the satisfaction of the Authority Having Jurisdiction (refer to Table 3 for specific underlayment/substrate combinations)
UNDERLAYMENT:	**TRI-BUILT SAT Base or TRI-BUILT SA Cap** self-adhered in accordance with FBC Section 1507.1.1.1(1) or R905.1.1.1(1) and back-nailed in accordance with the manufacturer's requirements.
SURFACING:	FBC HVHZ Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles, subject to the allowable roof covers in Table 2 herein.

6.4.2

CODE REFERENCE:	**1518.2.1, Option 1 combined with Option 2 or 3:** Optional self-adhering strips to deck-joints followed by base sheet mechanically fastened to deck followed by underlayment adhered to base sheet
DECK DESCRIPTION:	Code-minimum wood deck to the satisfaction of the Authority Having Jurisdiction
SECONDARY WATER BARRIER:	(Optional) Min. 3 ¾-inch wide strips of **TRI-BUILT SAT Base or TRI-BUILT SA Plybase** self-adhered over joints of the roof deck prior to installation of subsequent layer(s) in accordance with FBC Section 1507.1.1.1(2) or R905.1.1.1(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:	One (1) layer of **TRI-BUILT Fiberglass Base Sheet 3SQ** or FBC HVHZ Approved ASTM D226 Type II or ASTM D4689 Type III or IV in accordance with FBC Section 1518.2.1, with a minimum 4-inch side lap and 6-inch end lap or two (2) layers of **TRI-BUILT Fiberglass Base Sheet 3SQ** or FBC HVHZ Approved, ASTM D226 Type II or ASTM D4869 Type III or IV in accordance with FBC Section 1518.2.1(3), mechanically fastened to deck.
FASTENING:	FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5), grid pattern of 12-inches between the overlaps and 6-inch spacing at the overlaps, in accordance with FBC Table 1518.2.1 or FBC Section 1518.2.1(3).
UNDERLAYMENT:	**TRI-BUILT SAT Base or TRI-BUILT SA Cap** self-adhered in accordance with FBC Section 1518.2.1(1) and back-nailed max. 12-inch o.c. using FBC HVHZ Approved nails and tin cap (FBC HVHZ 1517.5).
SURFACING:	FBC HVHZ Approved asphalt shingles, metal roof panels or metal shingles, slate or slate type shingles, subject to the allowable roof covers in Table 2 herein.

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6.4.3	**CODE REFERENCE:**	**1518.2.1, Option 1 combined with Option 2:** Optional self-adhering strips to deck-joints followed by base sheet mechanically fastened to deck followed by underlayment adhered to base sheet
	DECK DESCRIPTION:	Code-minimum wood deck to the satisfaction of the Authority Having Jurisdiction
	THERMAL BARRIER:	(Optional) One (1) or two (2) layers of **TRI-BUILT Fiberglass Base Sheet 3SQ** or FBC Approved, ASTM D4601 Type II with a minimum 4-inch side lap and 6-inch end lap, preliminarily attached to hold in place.
	BASE SHEET:	One (1) layer of **TRI-BUILT SA NailBase** in accordance with FBC Section 1518.1, 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), grid pattern of 12-inches between the overlaps and 6-inch spacing at the overlaps, in accordance with FBC Table 1518.2.1 or FBC Section 1518.2.1(3).
	UNDERLAYMENT:	BASE PLY: (Optional) **TRI-BUILT SA Plybase** self-adhered in accordance with FBC Section 1507.1.1.1(1) or R905.1.1.1(1) and back-nailed in accordance with the manufacturer's requirements.
		CAP PLY: **TRI-BUILT SA Cap** self-adhered in accordance with FBC Section 1518.2.1(1) and back-nailed max. 12-inch o.c. using FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5).
	SURFACING:	FBC HVHZ Approved asphalt shingles, slate or slate type shingles, subject to the allowable roof covers in **Table 2** herein.

7. BUILDING PERMIT REQUIREMENTS:

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

8. MANUFACTURING PLANTS:

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

9. QUALITY ASSURANCE ENTITY:

UL, LLC – QUA9625: (360) 817-5512; bsai.inspections@ul.com

- END OF PEER –

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