



**NEMO|etc.**

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**EVALUATION REPORT**

**TAMKO Building Products, LLC**

PO Box 97  
Galena, KS 66739  
**(417) 624-6644**

**Evaluation Report 3m-TAM-20-FBCER.B-R0**

**FL12328-R9 (HVHZ)**

**Date of Issuance: 09/29/2020**

**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 products described herein have been evaluated for compliance with the **7<sup>th</sup> Edition (2020) Florida Building Code, High Velocity Hurricane Zone** sections noted herein.

**DESCRIPTION: TAMKO Roof Underlayments**

**LABELING:** Labeling shall be in accordance with the requirements of the Accredited Quality Assurance Agency noted herein.

**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.

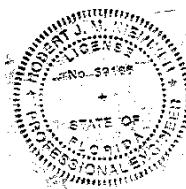
**INSPECTION:** Upon request, a copy of this entire Evaluation Report shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This Evaluation Report consists of pages 1 through 5.

**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 09/29/2020. 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.

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## ROOFING COMPONENT EVALUATION

### 1. SCOPE:

**Product Category:** Roofing

**Sub-Category:** Underlayment

**Compliance Statement:** TAMKO Roof Underlayments, as produced by TAMKO Building Products LLC, have demonstrated compliance with the following sections of the 7<sup>th</sup> 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
1518.4, TAS 110, RAS 115, RAS 118, RAS 119, RAS 120, RAS 130	Material standard	ASTM D226	2009
TAS 110	Material standard	ASTM D1970	2015
TAS 110, RAS 118, RAS 119, RAS 120	Material standard	ASTM D6380	2013

### 3. REFERENCES:

Entity	Examination	Reference	Date
PRI (TST5878)	ASTM D1970	TAP-388-02-01	10/04/2017
PRI (TST5878)	ASTM D226, Type II	TAP-420-02-01	04/19/2018
PRI (TST5878)	ASTM D1970	TAP-447-02-01	10/19/2018
PRI (TST5878)	ASTM D6380	847T0009	12/21/2019
PRI (TST5878)	ASTM D6380	847T00010	12/21/2019
PRI (TST5878)	ASTM D226, Type II	TAP-351-02-01	04/25/2016
PRI (TST5878)	ASTM D226, Type II	TAP-351-02-02	05/04/2016
UL LLC (TST9628)	ASTM D226, Type II	13CA12269	03/14/2014
UL LLC (QUA9625)	Quality Assurance	Service Confirmation	10/20/2020
UL LLC (QUA9625)	Quality Assurance	Florida BCIS	Current

### 4. PRODUCT DESCRIPTION:

	Product	Material Standard	Plant(s)	Description
4.1	No. 30 UL	ASTM D226, Type II	Joplin, MO Green Cove Springs, FL	Asphalt-saturated organic felt
4.2	No. 30 ASTM	ASTM D226, Type II	Phillipsburg, KS	Asphalt-saturated organic felt
4.3	TAM-FELT®	ASTM D226, Type II	Green Cove Springs, FL	Asphalt-saturated organic felt
4.4	Moisture Guard®	ASTM D1970	Joplin, MO	Self-adhering, fiberglass reinforced SBS modified bitumen roof underlayment with a mineral top surface.
4.5	TW Underlayment	ASTM D1970 <sup>1</sup>	Columbus, KS	Self-adhering, SBS modified bitumen roof underlayment with a polymer-film top surface.
4.6	TW Seam Tape	ASTM D1970	Columbus, KS	Self-adhering, SBS modified bitumen roof underlayment with a polymer-film top surface.

<sup>1</sup> Agreement between purchaser and seller, as set forth in Section 4.3, Note 1 of ASTM D1970-15, should be established as to slip resistance of TW Underlayment.

	Product	Material Standard	Plant(s)	Description
4.7	ASTM Slate Surfaced Roll Roofing	ASTM D6380, Class M, Type II	Green Cove Springs, FL	Asphalt-saturated organic mat, coated on both sides with asphalt and surfaced with granules.
4.8	ASTM Tile Underlayment	ASTM D6380, Class M, Type II	Green Cove Springs, FL	Asphalt-saturated organic felt, coated on both sides with asphalt and surfaced with granules.

## 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 for use in FBC High Velocity Hurricane Zone jurisdictions only (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 HVHZ 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 **TAMKO 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								
Underlayment	Asphalt Shingles [TAS 110(S10), RAS 115]	Clay and Concrete Tile [TAS 110(S11), RAS 118, 119 & 120]		Metal (RAS 133)		Slate [TAS 110(S11)]	Wood (RAS 130)	
		Mechanical Attach	Adhesive-Set	Panels	Shingles		Shingles	Shakes
No. 30 UL	Yes	Yes (Base Sheet in 2-ply system)	Yes (Base Sheet in 2-ply system)	Yes	Yes	Yes	Yes	Yes
No. 30 ASTM	Yes	Yes (Base Sheet in 2-ply system)	Yes (Base Sheet in 2-ply system)	Yes	Yes	Yes	Yes	Yes
TAM-FELT®	Yes	No	No	Yes	Yes	Yes	Yes	Yes
Moisture Guard®	Yes (Cap Sheet in 2-ply system)	No	No	No	No	Yes (Cap Sheet in 2-ply system)	Yes (Cap Sheet in 2-ply system)	Yes (Cap Sheet in 2-ply system)
TW Underlayment	Yes (Cap Sheet in 2-ply system)	No	No	Yes (Cap Sheet in 2-ply system)	Yes (Cap Sheet in 2-ply system)	Yes (Cap Sheet in 2-ply system)	Yes (Cap Sheet in 2-ply system)	Yes (Cap Sheet in 2-ply system)
TW Seam Tape	Yes (joint strips)	Yes (joint strips)	Yes (joint strips)	Yes (joint strips)	Yes (joint strips)	Yes (joint strips)	Yes (joint strips)	Yes (joint strips)
ASTM Slate Surfaced Roll Roofing	Yes (Valley Liner)	Yes (Cap Sheet in 2-ply system)	No	No	No	No	No	No
ASTM Tile Underlayment	Yes (Valley Liner)	Yes (Cap Sheet in 2-ply system)	No	No	No	No	No	No

## 5.7 Allowable Substrates:

TABLE 2: SUBSTRATE OPTIONS FOR ADHERED UNDERLAYMENTS			
Underlayment	Application	Primer	Substrates
Moisture Guard® or TW Underlayment	self-adhering	(Optional) ASTM D41	plywood
		None	No. 30 UL, No. 30 ASTM or TAM-FELT®
TW Seam Tape	self-adhering	(Optional) ASTM D41	plywood
ASTM Slate Surfaced Roll Roofing or ASTM Tile Underlayment	hot asphalt	None	No. 30 UL, No. 30 ASTM or TAM-FELT®

## 5.8 Attachment Limitations:

See Section 6.3

## 5.9 Exposure Limitations:

TABLE 3: EXPOSURE LIMITATIONS		
Underlayment	Prepared Roof Cover Installation Type	Maximum Exposure (days)*
No. 30 UL, No. 30 ASTM, TAM-FELT®	Any	30
Moisture Guard®, TW Underlayment		
ASTM Slate Surfaced Roll Roofing, ASTM Tile Underlayment		

\*Maximum exposure shall not exceed the manufacturer's recommendations, which may be less than 30 days.

5.10 Tile Slippage Limitations: When loading roof tiles on the underlayment in direct-deck tile roof assemblies, the tile shall be staged atop battens during loading of the roof tiles.

## 6. INSTALLATION:

6.1 **TAMKO Roof Underlayments** shall be installed in accordance with **TAMKO Building Products LLC** 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:                    | Min. 19/32-inch plywood or wood plank   |
|       | Secondary Water Barrier: | (Optional) TW Seam Tape self-adhered over joints of the plywood roof deck prior to installation of subsequent layer(s). 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:            | No. 30 UL, No. 30 ASTM or TAM-FELT® with min. 4-inch side laps and min. 6-inch end laps.  |
|       | Fastening:               | FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5), 6" o.c. at the laps and 12" o.c. at two (2) equally spaced, staggered center rows.  |
|       | Surfacing:               | FBC HVHZ Approved prepared roof assembly, per Table 1.  |

- 6.3.2 Deck: Min. 19/32-inch plywood or wood plank
- Secondary Water Barrier: (Optional) TW Seam Tape self-adhered over joints of the plywood roof deck prior to installation of subsequent layer(s). 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: No. 30 UL, No. 30 ASTM or TAM-FELT® with min. 4-inch side laps and min. 6-inch end laps.
- Fastening: FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5), 6" o.c. at the laps and 12" o.c. at two (2) equally spaced, staggered center rows.
- Cap Ply: Moisture Guard® or TW Underlayment, self-adhering
- Surfacing: FBC HVHZ Approved prepared roof assembly, per Table 1.
- 6.3.3 Deck: Min. 19/32-inch plywood or wood plank
- Secondary Water Barrier: (Optional) TW Seam Tape self-adhered over joints of the plywood roof deck prior to installation of subsequent layer(s). 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: No. 30 UL or No. 30 ASTM with min. 4-inch side laps and min. 6-inch end laps.
- Fastening: FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5), 6" o.c. at the laps and 12" o.c. at two (2) equally spaced, staggered center rows.
- Cap Ply: ASTM Slate Surfaced Roll Roofing or ASTM Tile Underlayment with min. 3-inch side laps and min. 6-inch end laps.
- Attachment: Adhered in full mopping of ASTM D312, Type IV hot asphalt at 25 lb/sq ± 15%, and backnailed at the side laps with FBC HVHZ Approved nails and tin caps (FBC HVHZ 1517.5) spaced max. 12" o.c. The headlap of the subsequent layer is to cover the backnailed row.
- Surfacing: FBC HVHZ Approved tile roof assembly, per Table 1.

## 7. BUILDING PERMIT REQUIREMENTS:

As required by the Building Official or Authority Having Jurisdiction in order 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; (414) 248-6409; [karen.buchmann@ul.com](mailto:karen.buchmann@ul.com)

**- END OF EVALUATION REPORT -**