



NEMO|etc.

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ENGINEER

EVALUATE

TEST

CONSULT

EVALUATION REPORT

Beacon Sales Acquisitions, Inc.
c/o Owens Corning Roofing and Asphalt, LLC
One Owens Corning Parkway
Toledo, OH 43659
(740) 587-3562

Evaluation Report 3m-OC-20-FBCER.A-R0
FL31963
Date of Issuance: 04/07/2020

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 and Florida Building Code, Residential Volume. The products described herein have been evaluated for compliance with the **6th Edition (2017) Florida Building Code** sections noted herein.

DESCRIPTION: TRI-BUILT® MAX Synthetic Underlayment

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 documentation changes, or provisions of the Code that relate to the product change. Acceptance of this Evaluation Report by the named client constitutes agreement to notify Robert Nieminen, P.E. of any changes to the product(s), the Quality Assurance or the production facility location(s). NEMO|etc. requires a complete review of this Evaluation Report relative to updated Code requirements with each Code Cycle.

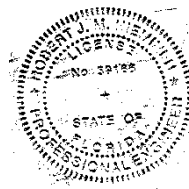
ADVERTISEMENT: The Evaluation Report number preceded by the words "NEMO|etc. Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

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 4.

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 04/07/2020. 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. 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: TRI-BUILT® MAX Synthetic Underlayment, as produced by Beacon Sales Acquisitions, Inc., has demonstrated compliance with the following sections of the 6th Edition (2017) Florida Building Code through testing in accordance with applicable sections of the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

2. STANDARDS:

Section	Properties	Standard	Year
1507.1.1, R905.1.1 Exception, 1518.4	Unrolling, Breaking Strength, Pliability	ASTM D226	2009
1507.1.1, R905.1.1 Exception	Tear Strength	ASTM D4533	2015
TAS 110	Accelerated Weathering	ASTM D4798	2011

3. REFERENCES:

Entity	Examination	Reference	Date
PRI (TST5878)	ASTM D226, ASTM D4533, ASTM D4798	1378T0039	04/07/2020
ITS (QUA1673)	Quality Control	Service Confirmation	04/07/2020

4. PRODUCT DESCRIPTION:

Product	Specification	Plant(s)	Description
TRI-BUILT® MAX Synthetic Underlayment	FBC 1507.1.1 & R905.1.1 (Exception)	Qingdao, China	multi-layered synthetic sheet-type roofing underlayment; unit weight of 3.9 lbs/square

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 Fire Classification is not part of this Evaluation Report; refer to current Approved Roofing Materials Directory for fire ratings of this product.
- 5.3 TRI-BUILT® MAX Synthetic Underlayment 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.

5.4 Allowable Roof Covers:

TABLE 1: ROOF COVER OPTIONS					
Underlayment	Asphalt Shingles	Tile	Metal	Wood Shakes & Shingles	Slate
TRI-BUILT® MAX Synthetic Underlayment	Yes	No	Yes	Yes	Yes

5.5 Exposure Limitations:

TRI-BUILT® MAX Synthetic Underlayment shall not be left exposed for longer than 180-days after installation.

6. INSTALLATION:

- 6.1 TRI-BUILT® MAX Synthetic Underlayment shall be installed in accordance with the manufacturer’s 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.

6.3 TRI-BUILT® MAX Synthetic Underlayment:

6.3.1 NON-HVHZ Jurisdictions:

6.3.1.1 Shall be installed in compliance with the requirements for ASTM D226, Type I or II underlayment in FBC Table 1507.1.1 or R905.1.1 for the type of prepared roof covering to be installed, considering the wider sheet-width for double-layer applications.

6.3.1.2 Fasteners:

Code Reference: FBC Table 1507.1.1 or FBC Residential R905.1.1, Notes 1 and 2.

Code Reference: FBC 1507.1.1, Exception and FBC Residential R905.1.1, Exception: *“...metal cap nails shall be required where the ultimate design wind speed, V_{ult} , equals or exceeds 150 mph.”*

6.3.1.3 Slopes of 4:12 or greater:

End (vertical) laps shall be minimum 6-inches and side (horizontal) laps shall be minimum 4-inches. End (vertical) laps shall be offset from course to course not less than 6 feet.

Minimum attachment shall be in accordance with FBC Table 1507.1.1 or FBC Residential Table R905.1.1, adding one (1) additional field-fastener-row. When batten systems are to be installed atop the underlayment, the underlayment need only be preliminarily attached pending attachment of the battens.

6.3.1.4 Slopes of 2:12 to less than 4:12:

End (vertical) laps shall be minimum 6-inches and side (horizontal) laps shall be minimum 25-inches. End (vertical) laps shall be offset from course to course not less than 6 feet.

Begin by fastening a 25-inch wide strip along the eaves. Place a full-width sheet over the starter, completely overlapping the starter course. Continue upslope, maintaining minimum 25-inch side (horizontal) laps, resulting in a double-layer application.

Minimum attachment shall be in accordance with FBC Table 1507.1.1 or FBC Residential Table R905.1.1, adding one (1) additional field-fastener-row. When batten systems are to be installed atop the underlayment, the underlayment need only be preliminarily attached pending attachment of the battens.

6.3.2 HVHZ Jurisdictions:

6.3.2.1 Shall be installed in a shingle fashion with minimum 4-inch wide side (horizontal) laps and minimum 6-inch wide end laps.

6.3.2.2 Shall be fastened with FBC HVHZ approved corrosion resistant, 1-5/8” diameter tin-caps and 12 gauge 1.25” long annular ring-shank nails (FBC 1517.5) spaced max. 6-inch o.c. at all laps and 12-inch o.c. at three (3) equally spaced rows in the field of the sheet.

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 manufacturer or the named QA entity for plants covered under Rule 61G20-3 QA requirements. Refer to Section 4 herein for product & production locations having met codified physical properties specifications.

9. QUALITY ASSURANCE ENTITY:

Intertek Testing Services NA Inc. – ETL/Warnock Hersey – QUA1673; (604) 520-3321;
peter.gildenstern@intertek.com

- END OF EVALUATION REPORT -