

Evaluation Report “Premium HT Tile and Metal™” Roof Underlayment

Manufacturer:
MFM Building Products Corp.

525 Orange Street
Coshocton, Ohio 43812
(740) 622-2645

for

Florida Product Approval

FL 11842.4 R9

Florida Building Code 8th Edition (2023)

Method: 1 - D

Category: Roofing

Sub - Category: Underlayment

Product: “Premium HT Tile and Metal™”
Description: Self-Adhered Underlayment

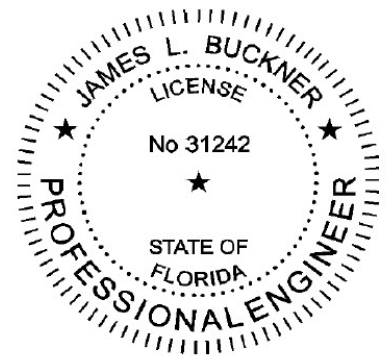
This item has been digitally signed and sealed by James L. Buckner, P.E., on this date below. Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.

Prepared by:

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Report No. 23-556-PHT-ER
(Revises 20-229-PHT-ER, FL11842.4 R8)
Date: 08/02/2023

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James L. Buckner, P.E.
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Date: 2023.09.01
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| Manufacturer: | MFM Building Products Corp. 525 Orange Street Coshocton, Ohio 43812 (740) 622-2645 www.mfmbp.com |
| Product Name: | “Premium HT Tile and Metal™” |
| Product Category: | Roofing |
| Product Sub-Category | Underlayment |
| Compliance Method: | State Product Approval Rule 61G20-3.005 (1) (d) |
| Product Description: | “Premium HT Tile and Metal™” is a self-adhering membrane composed of a reinforced polyester fabric, laminated to a high temperature asphalt adhesive and a fiberglass reinforced core with a split release liner. |
| Product Material / Standards: | Material Type: Styrene Butadiene Styrene (SBS) Material shall comply with ASTM D 1970 per Florida Building Code FBC 8th Edition (2023), Chapter 15. |
| Product Dimension(s) | Roll Size: 36 in. x 67 ft. rolls Thickness: 60 mils (nominal) |
| Roof Coverings: | <u>Mechanically Attached Applications</u> “Premium HT Tile and Metal™” is evaluated for use with metal roofing, clay or concrete roof tiles, asphaltic shingles, wood shakes/shingles, and quarry slate that are mechanically fastened through the underlayment and is attached to the sheathing or rafters. <u>Adhered Applications</u> “Premium HT Tile and Metal™” has demonstrated compliance for use with clay or concrete roof tiles that are adhered with the following adhesives: <ol style="list-style-type: none">1. ICP Adhesives Polyset AH1602. ICP RTA-13. Dow TILE BOND Roof Tile Adhesive4. DAP Touch ‘n Seal StormBond – Single component polyurethane foam adhesive5. DAP Touch ‘n Seal StormBond 2 – Double component polyurethane foam adhesive |
| Substrate(s): | “Premium HT Tile and Metal™” has demonstrated compliance for application to the following substrates (Design of support is outside the scope of this evaluation): Plywood Deck (APA Rated) |

Wind Resistance:

Table 1.0 - Wind Resistance

| | Attachment Method | Max. Design Uplift Pressure |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-----------------------------|
| 1. | Direct deck, fully adhered, no primer | - 45 PSF |
| 2. | Direct deck, fully adhered, primed with Prime-A-Seal | - 120 PSF |
| 3. | Mechanical attachment | Per Roof Assembly |
| Notes: 1. Allowable design pressure(s) for allowable stress design (ASD) with a margin of safety of 2 to 1. 2. Uplift Design Pressure is based on underlayment attached to deck. | | |

Installation:

General Installation Instructions:

“Premium HT Tile and Metal™” shall be installed in accordance with the attached installation method and in compliance with applicable code sections of the FBC 8th Edition (2023) and FRSA/TRI Florida High Wind Concrete and Clay Roof Tile Installation Manual, Seventh Edition subject to the Limitations and Conditions of Use listed in this Evaluation Report.

Refer to installation details at the end of this report. Refer to manufacturer’s installation instructions as a supplemental guide for attachment.

Performance Standards:

The product described herein has demonstrated compliance with:

- **ASTM D 1970-17a** – *Specification Self-adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roof Underlayment for Ice Dam Protection*
- **TAS 103-20** - *Test Procedure for Self-Adhered Underlayments for Use in Discontinuous Roof Systems*
- **ASTM D1623** - *Standard Test Method for Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics*

Standards Equivalency:

The ASTM D 1970-15 standard version used to test the product meets the prescribed standards in ASTM D 1970-20 standard version adopted by the Florida Building Code 8th Edition (2023) for use as evaluated in this report.

Code Compliance:

The product(s) described herein have demonstrated compliance with the performance standards listed above as referenced in the Florida Building Code 8th Edition (2023).

Evaluation Report Scope:

This product has been evaluated in compliance with the building envelope requirements of the Florida Building Code, as related to the scope section to Florida Product Approval Rule 61G20-3.001.

Product Limitations and Conditions of Use:

- Deck shall be in compliance with applicable building code.
- Minimum slope shall be 3:12 or greater and in compliance with FRSA/TRI *Florida High Wind Concrete and Clay Roof Tile Installation Manual, Seventh Edition*. For slopes 6:12 or greater, back nail underlayment 12” o.c.
- For adhered applications, underlayment maximum design uplift pressure shall meet or exceed wind design loads for the roof assembly.
- Not to be applied over active solvents or sealants, EPDM, TPO or products containing silicone.

- Underlayment shall not be applied over existing roof membranes.
- Product is a moisture/vapor barrier. Ensure that roof system provides adequate ventilation to prevent moisture buildup in interior structure.
- Product is acceptable for use with any roof covering system which specifically references product in the FBC approval. If not listed, an application may be submitted to the local building jurisdiction for approval based on this evaluation combined with supporting data for the roof covering and its attachment to support.
- Do not expose product to direct sunlight for more than 180 days.

General Limitations and Conditions of Use:

- Scope of “Limitations and Conditions of Use” for this evaluation:
This evaluation report for “Optional Statewide Approval” contains technical documentation, specifications and installation method(s) which include “Limitations and Conditions of Use” throughout the report in accordance with Rule 61G20-3.005. Per Rule 61G20-3.004, the Florida Building Commission is the authority to approve products under “Optional Statewide Approval”.
- Option for application outside “Limitations and Conditions of Use”
Rule 61G20-3.005(1)(e) allows engineering analysis for “project specific approval by the local authorities having jurisdiction in accordance with the alternate methods and materials authorized in the Code”. Any modification of the product as evaluated in this report and approved by the Florida Building Commission is outside the scope of this evaluation and will be the responsibility of others.
- This report is a building code product evaluation per FLPE rule (FAC) 61G15-36 to comply with Florida product approval rule (FAC) 61G20-3. This evaluation report is part of the Florida Building Commission approval for the listed code related criteria. This report by James Buckner, P.E. and CBUG Engineering is not a design certification of code compliance construction submittal documentation, per FBC section 107, for any individual structure, site specific or permit design.
- Fire Classification is outside the scope of Rule 61G20-3 and is therefore not included in this evaluation.
- This evaluation report does not evaluate the use of this product for use in the High Velocity Hurricane Zone code section. (Dade & Broward Counties)

Quality Assurance:

The manufacturer has demonstrated compliance of roof panel products in accordance with the Florida Building Code and Rule 61G20-3.0005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity through Keystone Certifications, Inc. (FBC Organization ID# QUA 1824).

Referenced Data:

1. ASTM D 1970/1970M-15a Test
By PRI Construction Materials Technologies, Inc.

(FBC Organization ID# TST 1556)
Report No. MFM-046-02-01, Date: 10/29/18

2. TAS 103-95 Test
By PRI Construction Materials Technologies, Inc.
(FBC Organization ID# TST 1556)
Report No. MFM-047-02-01, Date: 10/26/18
3. UL 1897-12 Test
By PRI Construction Materials Technologies, Inc.
(FBC Organization ID# TST 1556)
Report No. 580T0004 & 580T0005, Date: 01/10/20
4. ASTM D 1623-09 Test
By PRI Construction Materials Technologies, Inc.
(FBC Organization ID# TST 1556)
Report No. MFM-048-02-01, Date: 01/09/19
5. ASTM D 1623 -09 Test
By PRI Construction Materials Technologies, Inc.
(FBC Organization ID# TST 1556)
Report No. MFM-054-02-01, Date: 08/16/19
6. Equivalency of Test Standard Certification
By James L. Buckner, P.E. @ CBUCK Engineering
(FBC Organization # ANE 1916)
7. Quality Assurance
Keystone Certifications, Inc. (FBC Organization ID# QUA 1824)
MFM Building Products Corp. Licensee #335
8. Certification of Independence
By James L. Buckner, P.E. @ CBUCK Engineering
(FBC Organization # ANE 1916)

MFM Building Products Corp. Premium HT Tile and Metal Self-Adhered Roofing Underlayment

Mechanically Attached Applications

"Premium HT Tile and Metal™" is evaluated for use with metal roofing, clay or concrete roof tiles, asphaltic shingles, wood shakes/shingles, and quarry slate that are mechanically fastened through the underlayment and is attached to the sheathing or rafters.

Adhered Applications

"Premium HT Tile and Metal™" has demonstrated compliance for use with clay or concrete roof tiles that are adhered with the following adhesives:

1. ICP Adhesives Polyset AH160
2. ICP RTA-1
3. Dow TILE BOND Roof Tile Adhesive
4. DAP Touch 'n Seal StormBond – Single component polyurethane foam adhesive
5. DAP Touch 'n Seal StormBond 2 – Double component polyurethane foam adhesive

General Installation Instructions:

- Product to be applied directly to a clean dry surface.
- Prime any weathered surfaces.
- Install in a shingle-like manner. Starting at the low point of the deck, peel back 12"-18" of the release liner, align the membrane and press into place onto roof deck.
- Adhesive is pressure-activated, so press firmly into place using uniform pressure with a 2-3" heavy steel or rubber roller to seams and overlap.
- Overlap end laps a minimum of 6". Side laps must be a minimum of 3".
- Store product in the carton in a dry place until ready to use. Keep product out of direct sunlight.
- Not to be applied over active solvents or sealants, EPDM rubber or products containing silicone.
- Do not expose product to direct sunlight for more than 180 days.

Installation shall be in accordance with installation method described herein and in compliance with applicable code sections of the current Florida Building Code, subject to the Limitations and Conditions of Use listed in this Evaluation Report, and in accordance with both the underlayment manufacturer's and roof covering manufacturer's installation instructions. Use of this product with tile roof installation shall comply with FBC 1507.3.3 and 1507.3.3.1.

Product Illustration

