CBUCK Engineering

Specialty Structural Engineering

CBUCK, Inc. Certificate of Authorization #8064

Evaluation Report

"Peel & Seal™"

Roof Assembly

Manufacturer:

MFM Building Products Corp.

525 Orange Street

Coshocton, Ohio 43812

(740) 622-2645

for

Florida Product Approval

FL 13025.1 R5

Florida Building Code 8th Edition (2023)

Method: **1 - D**

Category: **Roofing**

Sub - Category: **Modified Bitumen Roof System**

Product: "Peel & Seal™"

Description: Self-Adhered Modified Bitumen Roof System

Deck: Steel Deck

Prepared by:

James L. Buckner, P.E., SECB

Florida Professional Engineer # 31242

Florida Evaluation ANE ID: 1916

Project Manager: Diana Galloway

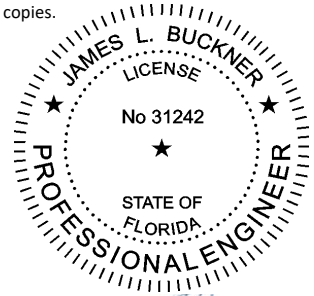
Report No. 23-556-P&S-S-ER

Revises 20-229-P&S-S-ER, fl13025.1 R4)

Date: 08 /02/2023

Contents:

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



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Manufacturer:

MFM Building Products Corp.
525 Orange Street
Coshocton, Ohio 43812
(740) 622-2645
http://www.mfmbp.com/

Product Name: "Peal & Seal™"

Product Category: Roofing

Product Sub-Category Modified Bitumen Roof System

Compliance Method: State Product Approval Rule 61G20-3.005 (1) (d)

System Description: "Peel & Seal™" Self-adhering modified bitumen membrane adhered to a corrugated steel deck.

Product Assembly as Evaluated: Refer to Page 4 of this report for product assembly components/materials & standards:
"Peel & Seal™" Self-adhering modified bitumen membrane
adhered to surface of:
Steel Deck (coated with asphalt primer)

Support Description: (As Tested)

Steel Deck
(Design of support system & attachment of support system is outside the scope of this evaluation)

- Profile Type: Corrugated
- Material: Steel
- Corrosion Resistance: Galvanized
- Corrugation Height: 1/2"
- Corrugation Rib (peak-to-peak): 2-1/2"
- Coverage Width: 21-1/2"
- Thickness: 26 Gauge

Slope Range: Slope shall be in compliance with FBC, Chapter 15 based on the type of roof covering and in accordance with the manufacturer's recommendations.

Performance Results:

Wind Uplift Resistance:

- Design Uplift Pressure*: **- 135 PSF**

** Allowable design pressures for allowable stress design (ASD).*

Impact Resistance:

- ASTM D 3746: Result: Meets Requirement 2

Accelerated Weathering:

- ASTM G 155: Result: PASS

Performance Standards: The product described herein has demonstrated compliance with:

- FM 4474-11, Appendix "B" – *Evaluating the Simulated Wind Uplift Resistance of Roof Assemblies Using Static Positive and/or Negative Differential Pressures*

Standards Equivalency: The TAS 114, Appendix "D" standard version used to test the product meets the prescribed standards in FM 4474-11, Appendix "B" 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 structural requirements of the Florida Building Code, as related to the scope section to Florida Product Approval Rule 61G20-3.001.

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 CBUCK 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.
- Design of support system is outside the scope of this report.
- 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).

Product Components Materials/ Standards:

"Peel & Seal™" Modified Bitumen Roof Membrane:
Self-adhering, foil-faced, non-reinforced membrane with rubberized asphalt, and a release liner.

Material	Rubberized Asphalt
Standard:	Per 1507.11.2
Available Colors:	Aluminum, White, Almond or Gray
Nominal Thickness:	45 mils
Roll Length:	33.5 ft.
Roll Widths:	3", 4", 6", 9" 12" 18", and 36"
Method of Attachment:	Self-Adhered

Primer (Applied to Steel deck panel)**:**

Product Name:	"MFM Prime-A-Seal™"
Standard:	ASTM D 41, Type II
Coverage:	100 sq. ft. per gallon
Application Thickness:	8 – 16 mils (wet)
Cure Time:	3 hours

Installation:

Installation Instructions:
(Refer to Page 5 of this evaluation report.)

Installation shall comply with this report, applicable code sections of FBC 8th Edition (2023) (subject to the Limitations and Conditions of Use listed in this Evaluation Report) and manufacturer's installation instructions as a supplemental guide for attachment.

Evaluation Reference Data:

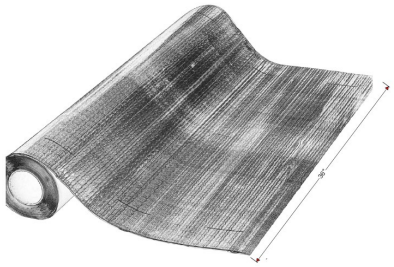
1. TAS 114 (D) Uplift Resistance Test
   By PRI Asphalt Technologies (FBC Organization #TST ID: 1679)
   Report #: MFM-027-02-01, Dated: 9 / 1 / 09
2. Quality Assurance
   By Keystone Certifications, Inc., (FBC Organization #QUA ID:1824)
   MFM Building Products Corp. Licensee # 335
3. Certification of Independence
   By James L. Buckner, P.E. @ CBUCK Engineering
   (FBC Organization # ANE 1916)
4. Equivalency of Test Standard Certification
   By James L. Buckner, P.E. @ CBUCK Engineering
   (FBC Organization # ANE 1916)

Additional Tests:

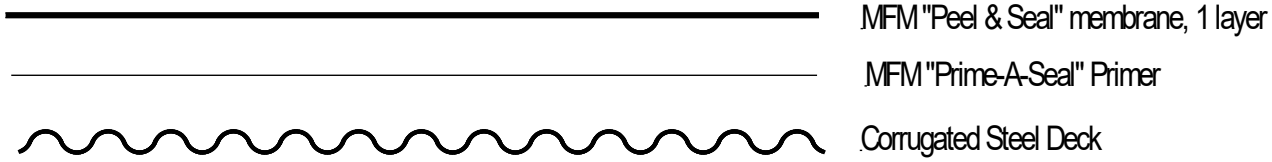
Performed on the product but not evaluated in this report:

1. CGSB- 37-GP-56M Properties Test(s)
   By PRI Asphalt Technologies (FBC Organization #TST ID: 1556)
   Report #: MFM-021-02-01, Report Date: 8 / 28 / 09
1. ASTM D 3746 Impact Resistance Test
   By PRI Asphalt Technologies (FBC Organization #TST ID: 1556)
   Report #: MFM-022-02-01, Dated: 5 / 1 / 09
2. ASTM G 155 Accelerated Weathering Test
   By PRI Asphalt Technologies (FBC Organization #TST ID: 1556)
   Report #: MFM-021-02-01, Dated: 8 / 28 / 09

Installation Method
MFM Building Products Corp.
"Peel & Seal™" Adhered to Steel Deck



"Peel & Seal" Modified Bitumen Roof System



- Cut the membrane to appropriate length.
- Prime surface of steel deck with MFM "Prime-A-Seal" primer to ensure good adhesion.
- Peel back the release sheet, align the membrane and press into place onto surface of steel roof deck.
- Apply membrane perpendicular to roof slope on slopes ≤ 3:12 and parallel on slopes > 3:12.
- Overlap end laps a minimum of 6". Side laps must be a minimum of 3".
- Apply using substantial, uniform pressure with a hand roller to seams and overlap.
- Product to be applied directly to a clean dry surface.
- Dust, dirt, oil, grease, moisture, debris and other loose materials or contaminants must be removed prior to application.
- Check that all nails in deck are not protruding and re-fasten any loose decking panels.
- After installation roll entire surface with a heavy weighted roller. Roll all side and end laps.
- Not to be applied over EPDM Rubber or urethane or urethane composite insulations.
- Apply membrane only in fair weather when the air, surface and membrane are greater than temperatures of 55° F.
- Store product in the carton in a dry place until ready to use.
- Protect membrane from damage during construction.

"Peel & Seal™" shall be installed in compliance with the installation method listed in this report and applicable code sections of FBC 8th Edition (2023). The installation method described herein is in accordance with the scope of this evaluation report.

Refer to manufacturer's installation instructions as a supplemental guide for attachment.