

Product Evaluation Report

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Product Manufacturer

INNOVA PANEL, LLC
1541B North Powerline Road
Pompano Beach, FL, 330639

Product Name, Model and/or Description

Structural Insulated Panel
Plywood/MgO Face Sheets – Roof and Floor (IEBS0001)
OSB/MgO Face Sheets – Roof and Floor (IEBS0002)
MgO/MgO Face Sheets – Roof and Floor (IEBS0006)

Code: Current Edition of the Florida Building Code including 8th Edition (2023) Florida Building Code

Compliance Method: 61G20-3.005(1)(d) – Product Evaluation Report by a Licensed Professional Engineer

Product Name, Model and/or Designation: Products covered by this evaluation include the following.

- Structural Insulated Panel – Plywood/MgO Face Sheets – Roof and Floor
- Structural Insulated Panel – OSB/MgO Face Sheets – Roof and Floor
- Structural Insulated Panel – MgO /MgO Face Sheets – Roof and Floor

Product Installation Instructions:

- Structural Insulated Panel – Plywood/MgO Face Sheets – Roof and Floor Installation Drawing No. IEBS0001, Rev. E, dated 1/6/23, signed and sealed by Robert J. Amoruso, P.E.
- Structural Insulated Panel – OSB /MgO Face Sheets – Roof and Floor Installation Drawing No. IEBS0002, Rev. E, dated 1/6/23, signed and sealed by Robert J. Amoruso, P.E.
- Structural Insulated Panel – MgO /MgO Face Sheets – Roof and Floor Installation Drawing No. IEBS0006, Rev. C, dated 1/6/23, signed and sealed by Robert J. Amoruso, P.E.

Performance Testing Standards: Performance testing was conducted to the following standards per the current Edition of the Florida Building and Residential Codes:

- ASTM E330-02
- TAS 202-94, Structural Loading only
- TAS 201-94, Impact
- TAS 203-94, Post-Impact Cyclic Loading

Test Reports: Testing conducted by Fenestration Testing Laboratory

- Test Report No. 13-5033/Lab No. 7321-03, dated 3/5/2014, signed and sealed by Marlin Brinson, FL PE License No. 60749, for Structural Insulated Panel – Plywood/MgO Face Sheets and Structural Insulated Panel – OSB/MgO Face Sheets.
- Test Report No. 13-5033/Lab No. 8447, dated 8/31/2015, signed and sealed by Idalmis Ortega, FL PE License No. 76905, for Structural Insulated Panel – MgO /MgO Face Sheets.



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Limitations & Conditions of Use:

- High Velocity Hurricane Zone (HVHZ) Usage Restrictions:
 - Structural Insulated Panel – Plywood/MgO Face Sheets – Roof and Floor Installation (Drawing No. IEBS0001) has been evaluated and is approved for use inside and outside the HVHZ. This product is Impact Resistant.
 - Structural Insulated Panel – OSB/MgO Face Sheets – Roof and Floor Installation (Drawing No. IEBS0002) has not been evaluated and is not approved for use inside the HVHZ. OSB Panels are disallowed in the HVHZ.
 - Structural Insulated Panel – OSB/MgO Face Sheets – Roof and Floor Installation (Drawing No. IEBS0002) has been evaluated and is approved for use outside the HVHZ. This product is Impact Resistant.
 - Structural Insulated Panel – MgO /MgO Face Sheets – Roof and Floor Installation (Drawing No. IEBS0006) has been evaluated and is approved for use inside and outside the HVHZ. This product is Impact Resistant.
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- Refer to Product Installation Instructions noted above for:
 - Maximum allowable pressure loading at related maximum allowable span.
 - Other load limitations applicable to the product, if any.
 - Overall dimensions and material/grade of main product components, accessories, etc.
 - Illustrated diagrams Structural Insulated Panel (SIP).
- Site specific loading shall be determined by a licensed professional engineer in accordance with the Current Edition of the Florida Building and Residential Codes as applicable.

Engineering Evaluation:

1. Report 2297-EER, Rev. 5, dated 1/6/23, signed and sealed by Robert J. Amoruso, P.E., Test Standard Equivalency Evaluation

Material Certifications:

1. Insulfoam Expanded Polystyrene Type 1 Insulation meets/exceeds ASTM E84 Flame Spread and Smoke Development Index and ASTM D1929 Self-Ignition Temperature requirements of the Current Edition of the Florida Building Code based on the following.
 - a. MD NOA No. 23-1012.02 or subsequent superseding NOAs.
2. Magnesium Oxide Face Panel by MgO Board meets/exceeds ASTM E84 Flame Spread and Smoke Development Index requirements of the Current Edition of the Florida Building Code based on the following.
 - a. SGS Report Number AJD201307225
 - i. Flame Spread Index = 0
 - ii. Smoke Developed Index = 15
 - iii. Meets Class A designation



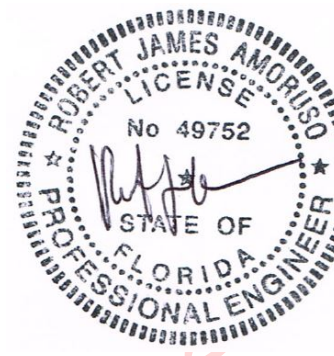
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3. OSB Face Panel by Georgia Pacific meets/exceeds ASTM E84 Flame Spread and Smoke Development Index requirements of the Current Edition of the Florida Building Code based on the following.
 - a. APA class: Exposure 1
 - b. Fire class: Class III or C
 - c. Code Compliance: PS 2-10
 - d. ASTM E84 Flame Spread: 76-200
 - e. ASTM E84 Smoke Developed Index < 450
4. Plywood Face Panel by Georgia Pacific meets/exceeds ASTM E84 Flame Spread and Smoke Development Index requirements of the Current Edition of the Florida Building Code based on the following.
 - a. APA Class: Exposure 1, Exterior
 - b. Fire class: Class III or C
 - c. Code Compliance: PS 1-09 OR PS 2-10
 - d. ASTM E84 Flame Spread: 76-200
 - e. ASTM E84 Smoke Developed Index < 450
5. DuraSip Phenolic Fiberglass Laminate (splice connection) meets/exceeds ASTM E84 Flame Spread and Smoke Development Index requirements of the Current Edition of the Florida Building Code and additional properties based on the following.
 - a. ASTM E84 Flame Spread: 5
 - b. ASTM E84 Smoke Developed Index: 5
 - c. ASTM E162 Surface Flammability: 0.9
 - d. ASTM E662 Specific Optical Density of Smoke Generated by Solid Materials: 0.6
6. FACE SHEET to CORE MATERIAL ADHESIVE: DuPont Betafuse 643 and 654 Laminating Adhesive
 - a. ICC-ES ESR-1023, Sandwich Panel Adhesive
 - b. See Appendix A for rebranding name change.

Certificate of Independence per Product Approval Rule 61G20-3.009

PTC Product Design Group, LLC and Robert J. Amoruso, P.E. does not have, nor will acquire, any financial interest in the company manufacturing or distributing product(s) covered by this Product Evaluation Report. PTC Product Design Group, LLC and Robert J. Amoruso, P.E. do not have, nor will acquire any financial interest in any other entity involved in the approval process or testing of the product(s) covered by this Product Evaluation Report.



Digitally signed
by Robert J
Amoruso
Date: 2024.02.15
16:21:16 -05'00'

Evaluated by:
Robert J. Amoruso, P.E.
FL PE License No. 49752



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Appendix A – Adhesive Mor-Ad to Betafuse Branding Name Change

From: Knapp, Daniel <daniel.knapp@dupont.com>

Sent: Wednesday, October 30, 2019 1:51 PM

Subject: Mor-Ad tradename change

Many of you may already be aware, but as part of the DowDuPont spin-offs, Dow will be keeping the Mor-Ad tradename. As a result the current Mor-Ad adhesives you purchase through DuPont will be renamed Betafuse. In addition, we will be dropping the M- designation in front of the product numbers but the numerical sequence will still remain the same. Attached is an equivalency letter and certificate as some may have documentation needing changed with one of the many approval agencies. This change will not occur until sometime after Feb 1st, 2020. We want everyone to be aware now so that any required changes can be at least started if not completed prior to the change. I know this is a general rule, but I believe most agencies will accept your use of the Betafuse product line provided you have the equivalency documentation and you have initiated any required name changes. As always feel free to contact me with questions.

<u>Historical Name</u>	<u>New name after 2/1/20</u>
Mor-Ad M-630	Betafuse 630
Mor-Ad M-533	Betafuse 533
Mor-Ad M-640	Betafuse 640
Mor-Ad M-642	Betafuse 642
Mor-Ad M-643	Betafuse 643
MOr_ad M-644	Betafuse 644
Mor-Ad M-646	Betafuse 646
Mor-Ad M-647	Betafuse 647
Mor-Ad M-648	Betafuse 648
Mor-Ad M-650	Betafuse 650
Mor-Ad M-652	Betafuse 652
Mor-Ad M-653	Betafuse 653
Mor-Ad M-654	Betafuse 654
Mor-Ad M-656	Betafuse 656
Mor-Ad M-657	Betafuse 657
Mor-Ad M-658	Betafuse 658
Mor-Ad M-661	Betafuse 661
Mor-Ad M-664	Betafuse 664

<u>Historical name</u>	<u>New name after 2/1/20</u>
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Dan Knapp
Sr Account Manager, Structural Adhesives & Panels
Performance Building Solutions
DuPont Safety & Construction



Cell: (574) 202-4568
daniel.knapp@dupont.com



PTC Product Design Group, LLC | PO Box 520775 | Longwood, FL 32752-0775
321-690-1788 | FBPE Certification of Authorization No. 25935

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Appendix A – Adhesive Mor-Ad to Betafuse Branding Name Change

Performance Building Solutions
200 Powder Mill Road
Wilmington, DE 19808



October 1st, 2019

Dear Valued Customer:

As part of the continued integration into the DuPont Specialty Products USA, LLC, DuPont Performance Building Solutions is rebranding some of its product names. This letter is provided to inform the purchaser of the following products continued quality and equivalency to the legacy brand product listed below for the purpose of use at the purchaser's location:

**ROHM AND HAAS CO. MOR-AD™ LAMINATING ADHESIVE &
DOW MOR-AD™ LAMINATING ADHESIVE &
DUPONT MOR-AD™ LAMINATING ADHESIVE**

are equivalent to:

DUPONT™ BETAFUSE™ LAMINATING ADHESIVE

With regard to our rebranding activities, there are no changes to manufacturing facilities, processes, test methods, or equipment used for the Betafuse™ products at this time. In the event of any changes to the foregoing, DuPont will follow its standard change management and notification process. Please refer to the product details pages on DuPont.com/Building/Products.html for a general description of product characteristics and sales specifications.

We remind you that customers must determine the suitability of our products for use in their applications and formulations. This information should not be used in substitution for customer tests to ensure that the products are safe, effective and fully satisfactory for the intended end-use.

If you have any questions, please contact us.

A handwritten signature in black ink, appearing to read "Tom Evans".

Date: October 1, 2019

Tom Evans
Americas Business Director, Performance Building Solutions
DuPont Safety and Construction



PTC Product Design Group, LLC | PO Box 520775 | Longwood, FL 32752-0775
321-690-1788 | FBPE Certification of Authorization No. 25935

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Appendix A – Adhesive Mor-Ad to Betafuse Branding Name Change

Betafuse[®]

DUPONT[®]

Chemical Equivalency Certificate

As part of the continued integration into the DuPont Specialty Products USA, LLC, Inc, DuPont Performance Building Solutions is rebranding some of its product names. This certificate is provided to inform the purchaser of the following products continued quality and equivalency to the legacy brand product listed below for the purpose of use at the purchaser's location.

**ROHM AND HAAS CO. MOR-AD[™] LAMINATING ADHESIVE &
DOW MOR-AD[™] LAMINATING ADHESIVE &
DUPONT[™] MOR-AD[™] LAMINATING ADHESIVE**

are equivalent to:

DUPONT[™] BETAFUSE[™] LAMINATING ADHESIVE

With regard to our rebranding activities, there are no changes to manufacturing facilities, processes, test methods, or equipment used for the Betafuse[™] products at this time. In the event of any changes to the foregoing, DuPont will follow its standard change management and notification process.

Please refer to the product details pages on [DuPont.com/Building/Products.html](https://www.dupont.com/Building/Products.html) for a general description of product characteristics and sales specifications.

We remind you that customers must determine the suitability of our products for use in their applications and formulations. This information should not be used in substitution for customer tests to ensure that the products are safe, effective and fully satisfactory for the intended end-use.

If you have any questions, please contact us.



Date: October 1, 2019

Tom Evans

Americas Business Director, Performance Building Solutions
DuPont Safety and Construction

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