



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

Armstrong World Industries
2500 Columbia Ave.
Lancaster, PA 17603

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER- Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Tectum III-W Composite Roof Panels System

APPROVAL DOCUMENT: Drawing #18-119-ER, titled "Tectum III-W Composite Roof Panels System", prepared by CBuck Engineering, dated August 11, 2018, last revision #2 dated October 07, 2021, signed and sealed by James L. Buckner, P.E., on October 07, 2021, bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and the expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each panel shall bear a permanent label with the manufacturer's name or logo, Lancaster, PA and the following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA 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 NOA revises NOA #18-0619.03 and consists of this page 1, evidence submitted page E-1 as well as approval document mentioned above.

The submitted documentation was reviewed by **Helmy A. Makar, P.E., M.S.**



Helmy A. Makar
10/21/2021

NOA No. 21-0830.04
Expiration Date: 03/21/2024
Approval Date: 10/21/2021
Page 1

Armstrong World Industries

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #18-0619.03

A. DRAWINGS:

1. *Drawing #18-119-ER, titled "Tectum III-W Composite Roof Panels System", prepared by CBuck Engineering, dated August 11, 2018, last revision #1 dated Jan. 15, 2019, signed and sealed by James L. Buckner, P.E., on January 15, 2019.*

B. TESTS

1. *Test report on Large Missile Impact Test, per TAS 201, and Cyclic Wind Pressure per TAS 203, Test Report No. II182.02-109-18 prepared by Intertek, dated 04/27/2018, signed and sealed by Joseph Reed, P.E.*
2. *Structural Uplift Performance Test report per TAS 125-03 per ASTM E 1592-05, prepared by Intertek, Test Report # II182.01-109-18, dated 04/25/2018, signed and sealed by Joseph Reed, P.E.*

C. CALCULATIONS:

1. *Request letter dated June 11, 2018, 1 page, prepared by CBuck Engineering, signed and sealed by James L. Buckner, P.E.*

D. QUALITY ASSURANCE

1. *By Miami-Dade County Department of Regulatory and Economic Resources.*

E. MATERIAL CERTIFICATIONS:

1. *None.*

F. STATEMENTS

1. *Florida Building Code, 2017 Edition, compliance letter prepared by CBuck Engineering, dated June 11, 2018, signed and sealed by James L. Buckner, P.E.*

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS:

1. *Drawing #18-119-ER, titled "Tectum III-W Composite Roof Panels System", prepared by CBuck Engineering, dated August 11, 2018, last revision #2 dated October 07, 2021, signed and sealed by James L. Buckner, P.E., on 10/07/2021.*

B. TESTS

1. *None.*

C. CALCULATIONS:

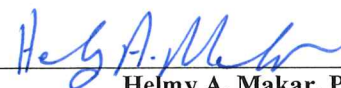
1. *None.*

D. QUALITY ASSURANCE

1. *By Miami-Dade County Department of Regulatory and Economic Resources.*

E. MATERIAL CERTIFICATIONS:

1. *None.*



Helmy A. Makar, P.E., M.S.
Product Control Section Supervisor
NOA No. 21-0830.04
Expiration Date: 03/21/2024
Approval Date: 10/21/2021

Engineering Report & Drawings

of

Armstrong World Industries, Inc.

Tectum III-W

Composite Roof Panels

For

Miami-Dade Notice of Acceptance (N.O.A.)

Category: Roofing
Sub - Category: Deck-Roof

Product Type: Composite Roof Panel System
Material: Tectum

Prepared by:

James L. Buckner, P.E.

Florida Professional Engineer # 31242

Report No.: 18-119-ER

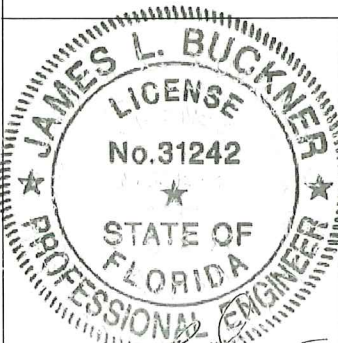
Date: 10 / 07 / 21

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Product Drawings & Details	Page 5

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 21-0830.04
Expiration Date 03/21/2024
By: *Heidi A. Miller*
Miami Dade Product Control

ARMSTRONG WORLD INDUSTRIES TECTUM III-W COMPOSITE ROOF PANEL SYSTEM ENGINEERING REPORT



CBUCK Engineering
Specialty Structural Engineering
CBUCK, Inc. COA #8064
www.cbuckinc.net
(561) 491-9927
1374 Community Dr
Jupiter, FL 33458

MANUFACTURER:
Armstrong
WORLD INDUSTRIES
Armstrong World Industries, Inc
2500 Columbia Ave, BLDG 5
Lancaster, PA 17603

DATE:	08/11/18
PAGE #:	1 OF 5
REPORT #:	18-119-ER
PROJECT #:	18-119
DRAWN BY:	MJR
REV1:	01/15/19 JLB, REV2: 10/07/21 DG

Date: 10/7/21

1.0 Product:

- 1.1 **Manufacturer:** Armstrong World Industries, Inc.
- 1.2 **Product Name:** Tectum III-W Composite Roof Panels
- 1.3 **Category:** Roofing
- 1.4 **Subcategory:** Deck-Roof

2.0 Evaluation Scope:

2.1 Evaluation Criteria:

- 2.1.1 Florida Building Code (FBC) 7th Edition (2020)
- 2.1.2 Code Section: High Velocity Hurricane Zone (HVHZ)
- 2.1.3 Miami-Dade Department Of Regulatory And Economic Resources, Product Control Section Checklist # 0405

2.2 Properties Evaluated:

- 2.2.1 Structural Resistance Properties
 - 2.2.1.1 Uplift Resistance Testing per TAS 125
 - 2.2.1.2 Large Missile Impact Testing per TAS 201
 - 2.2.1.3 Cyclical Wind Pressure Testing per TAS 203

2.3 Limits of Evaluation:

This product is limited to compliance with the criteria in section 2.1 and properties in Section 2.2 of this report.

3.0 Evaluated Uses:

Armstrong World Industries, Inc Tectum III-W Composite Roof Panels are used as roof decking systems.

4.0 Assembly Description:

4.1 General:

Tectum III-W composite roof panels have an interior layer of Tectum substrate and an Exterior layer of 19/32" C-D Exposure 1 plywood. Both Layers are bonded to a core of Styrofoam brand foam insulation. An interior layer of 1-1/2" thick Tectum III-W cementitious wood fiber is adhered to the rigid foam. At the long edges, the Tectum III-W component forms into a tongue and groove and the rigid foam is half lapped to form a joint between panels. Panels are 4'-0" wide x 8'-0" long x 5 3/32" Thick.

The Tectum III-W composite roof panels were attached to 2x12 Southern-Yellow Pine joists spaced at 5'-0" o.c. Panels were attached with 3/16" diameter x 7" long Trufast Flat head Screws located 6" from each end and spaced 12" on center through the roof panel into the purlins.

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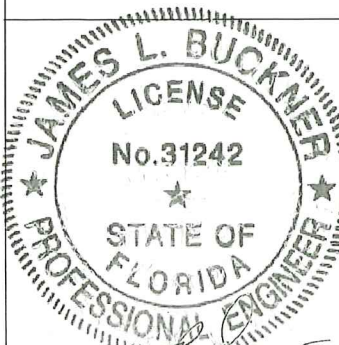
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Date: 10/7/21

4.2 Panel Dimensions:

4.2.1 Refer to panel drawings.

4.3 Section Properties

Deck Type	Overall Thickness	Plywood Thickness	Styrofoam Thickness	Tectum III-W thickness
Tectum III-W	5.09375"	19/32"	3"	1 1/2"

5.0 Support:

The Support assembly is designed by others and shall have the following minimum Characteristics:

- 5.1 Type: Wood Joists or stringers
- 5.2 Material: Southern Yellow Pine, No 2 grade minimum
- 5.3 Thickness: 2" minimum
- 5.4 Width: 12" minimum
- 5.5 Support Spacing: Refer to Table Below

6.0 Performance:

- 6.1 Allowable Pressure with Supports Spaced @ 5'-0" O.C. (MAX):
 - 6.1.1 Negative Pressure: **-150 PSF** (2:1 Safety Factor Applied)
 - 6.1.2 Positive Pressure: **+35 PSF** (2:1 Safety Factor Applied)

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7.0 Installation:

- 7.1 Attaching to Wood Joists: The tongue of each panel has a continuous 3/8" bead of adhesive. Each panel is secured with 3/16" diameter x 7" TruFast Flat head screws located 6" from each end and spaced 12" on center through the roof panel into the purlins.

8.0 Limitations of Use:

- 8.1 The supports shall be 2X12 No. 2 Southern Yellow Pine, Minimum.
- 8.2 Maximum support spacing shall not be exceeded.
- 8.3 The panels shall be supported by structural framing members complying with the Miami-Dade (Florida High velocity zone) code.
- 8.4 Panel shall not be used as axial load bearing components and shall not be intended / designed to act as a diaphragm.
- 8.5 The engineer of record or architect shall verify that the supporting structure is capable of resisting the superimposed loads from the wall panel system and that the supporting structure is capable of providing lateral stability to carry the wind loads to the building foundation.

9.0 Code Compliance

- 9.1 Product meets the High Velocity Hurricane Zone (HVHZ) Requirements of the Florida Building Code, 7th Edition (2020) for the properties evaluated.

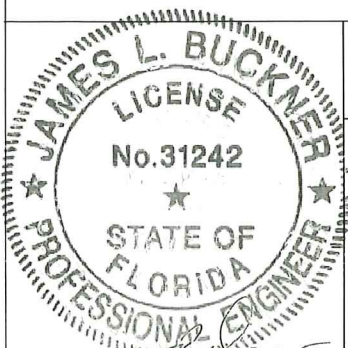
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10.0 Identification:

- 9.2 Each Panel shall bear a permanent label with the manufacturer's name or logo, manufacturing plant's city, state and the statement reading "Miami-Dade County Product Control Approved" is to be located on each panel.

11.0 Reference Data:

- 9.3 TAS 125 – Test for Uplift Resistance of Roof Assemblies.
Report No.: I1182.01-109-18 Report Date: 4/25/18
By: Intertek Building & Construction, Inc.
- 9.4 TAS 201 – Large Missile Impact Test.
Report No.: I1182.01-109-18 Report Date: 4/25/18
By: Intertek Building & Construction, Inc.
- 9.5 TAS 203 – Cyclic Wind Pressure Loading, respectively
Report No.: I1182.01-109-18 Report Date: 4/25/18
By: Intertek Building & Construction, Inc.

13.0 Product Components:

13.1 Tectum III-W Roof Deck

The panel is a 4" deep composite tectum system.

Material:	Tectum
Total Thickness:	5 3/32"
Plywood Thickness:	19/32" Minimum
Styrofoam Thickness:	3" Maximum
Tectum Thickness:	1 1/2" Maximum
Plywood Type:	C-D Exterior Grade Plywood minimum 4 Ply

13.2 Fasteners:

Specification/standard for fasteners to be used at intermediate and end steel supports.

Material:	Stainless Steel
Type:	Trufast Flat Head
Diameter:	3/16" Diameter
Length:	7" minimum
Corrosion Resistance:	Stainless per ASTM A240

13.3 Adhesive:

Specification/standard for fasteners to be used at intermediate and end steel supports.

Material:	Polyurethane Adhesive
Type:	Masterweld 948
Diameter:	3/8" Diameter
Length:	Continuous

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Miami Dade Product Control

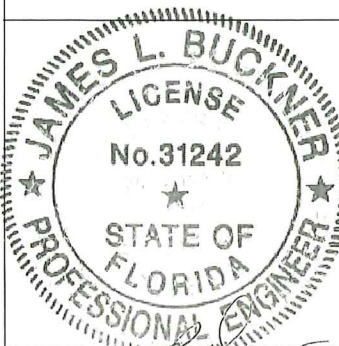
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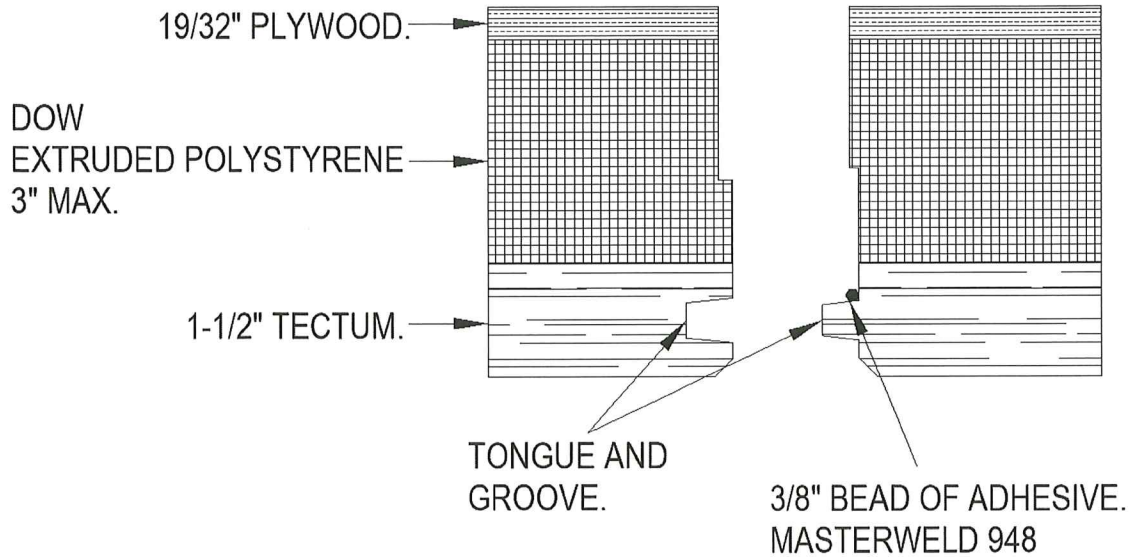
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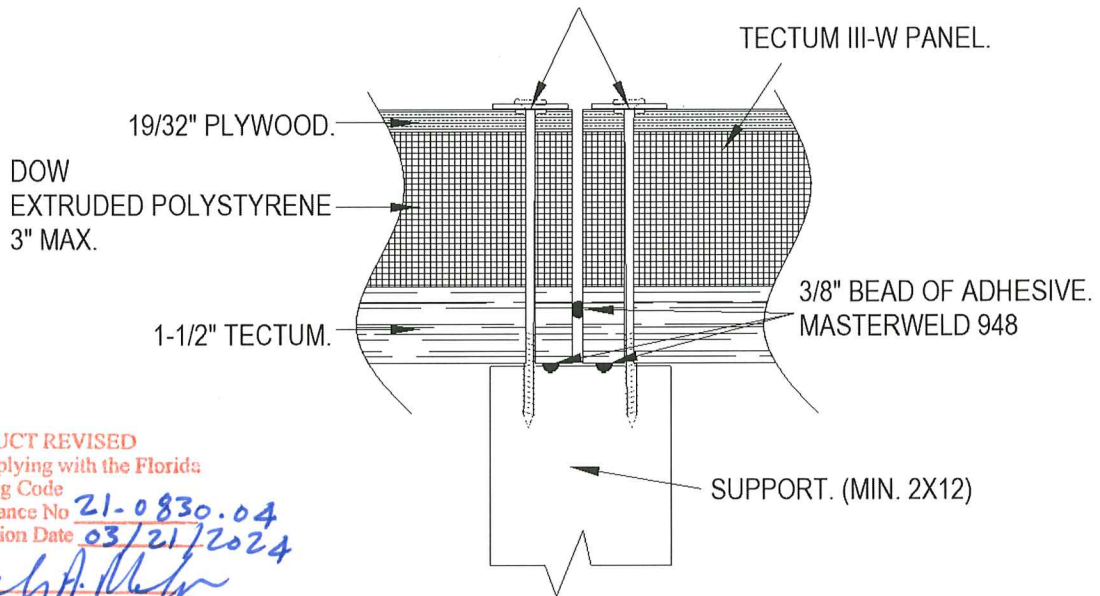
Date: 10/7/21

Armstrong World Industries, Inc.
"Tectum III-W" INSTALLATION DRAWINGS



TYPICAL SECTION

TRUFAST FLAT HEAD SCREWS w/
 1/16" THICK STEEL W/
 1-1/2" WASHERS @ 12" O.C.
 MIN 1" PENETRATION INTO SUPPORT.



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SECTION AT SUPPORTS

ARMSTRONG WORLD INDUSTRIES TECTUM III-W COMPOSITE ROOF PANEL SYSTEM
 ENGINEERING REPORT

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