

Evaluation Report "UniLine R" Wall Panel Wall Panel Assembly

Manufacturer
Englert, Inc.

1200 Amboy Avenue
Perth Amboy, NJ 08862
(732) 826-8614

for

Florida Product Approval

FL 17209.2 R6

Florida Building Code 8th Edition (2023)

Method: 2 - B

Category: Structural Components

Sub - Category: Structural Wall

Prepared by:

James L. Buckner, P.E., S.E.C.B.

Florida Professional Engineer # 31242

Florida Evaluation ANE ID: 1916

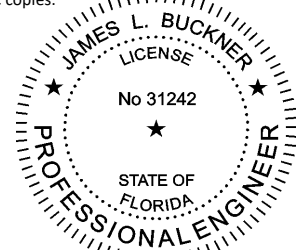
Project Manager: Diana Galloway

Report No. 23-555-UniLineR-ER

(Revises Report No. 22-469-UniLineR-ER, FL17209.2 R5)

Date: 08/16/2023

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.



Date: 2023.08.16
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Evaluation Report

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Manufacturer:	Englert, Inc. 1200 Amboy Avenue Perth Amboy, NJ 08862 (732) 826-8614 http://www.englertinc.com/
Product Name:	"UniLine R"
Product Category:	Structural Components
Product Sub-Category	Structural Wall
Compliance Method:	State Product Approval Rule 61G20-3.005 (2) (b)
Product/System Description:	"UniLine R" panels are 1-1/4" deep, ribbed wall panels attached to steel supports with screws.
Product Assembly as Evaluated:	Refer to Page 4 of this report for product assembly components/materials & standards: 1. Wall Panel 2. Fasteners
Support:	Type: Steel Supports (Design of support and its attachment to support framing is outside the scope of this evaluation.) Description: Steel Supports Thickness: 20 Gauge minimum (0.034") Yield Strength: 50 ksi minimum Size: 3" wide x 1-1/2" high Steel Support Spacing: 48"
Performance:	Wind Resistance: Design Pressure: (Refer to "Table A" attachment details herein) Refer to Table "A"
Performance Standards:	The product described herein has demonstrated compliance with: • ASTM E330-14 – Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference

Standard Equivalency:	The ASTM E330-02 standard version used to test the product meets the prescribed standards in ASTM E330-14 standard version adopted by the Florida Building Code 8th Edition (2023) for use as evaluated in this report.
Code Compliance:	The product described herein has demonstrated compliance with Florida Building Code 8th Edition (2023), Section 1708.2.
Evaluation Report Scope:	This product evaluation is limited to compliance with the structural requirements of the Florida Building Code, as related to the scope section to Florida Product Approval Rule 61G20-3.001.
Limitations and Conditions of Use:	• Diaphragm and axial load capacity is outside the scope of this evaluation. • <u>Scope of "Limitations and Conditions of Use" for this evaluation:</u> 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". • Design of support system is outside the scope of this report. Support shall be designed by others and shall comply with the FBC Chapters 22 for steel and Chapter 16 for structural loading. • 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) • <u>Option for application outside "Limitations and Conditions of Use"</u> 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.
Quality Assurance:	The manufacturer has demonstrated compliance of wall 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).

**Components/Materials
(by Manufacturer):**

Wall Panel:

Material:
Thickness:
Panel Width:
Rib Height:
Steel Yield Strength:
Alum Alloy Type:
Corrosion Resistance:

“UniLine R”

Steel or Aluminum
Refer to Table A
36” (max.) Coverage
1-1/4”
40 ksi min.
3105-H24, in compliance with ASTM B 209
Kynar 500 paint finish
(In compliance with FBC Section 1405.2)

Fasteners:

FASTENER 1:

Type:
Size :
Corrosion Resistance:
Standard:

Panel to Support
Hex-Head Self-Tapping Screw with WSW
#12 – 14 x 1-1/2”
Per FBC Section 1405.17
SAE J78-1979

FASTENER 2:

Type:
Size :
Corrosion Resistance:
Standard:

Panel to Panel, Stitch Lap
Hex-Head Self-Tapping Screw with WSW
1/4” - 14 x 7/8”
Per FBC Section 1405.17
SAE J78-1979

Tape:

Type:

Size:

Location:

Non-curing Butyl Tape
1/2” (Wide)
All panel vertical lap joints

Sealant:

Type:

Size:

Location:

Gunable Non-curing Butyl Sealant
1/2” wide bead
All panel horizontal lap joints between panels

Installation:

Installation Method:

(Refer to "TABLE A" below and drawings at the end of this report.)

- Support Spacing: **Refer to "TABLE A" Below**
- Fastener spacing: **12" o.c.** (nominally)
(along the support, centered in the valley between corrugations)
- Sidelap spacing: **16" o.c.**
(along the length of the side laps, at all vertical lap joints)
- Minimum fastener penetration thru bottom of support, 3/4".
(through flange of steel supports)

TABLE A ENGLERT "UniLine R" WALL PANEL ALLOWABLE LOADS							
#	MAT'L	THICKNESS	MAX. SUPPORT SPACING	SPAN CONDITION	FASTENER SPACING	SIDELAP SPACING	DESIGN PRESSURE (PSF)
1.	ALUM	0.032"	48" (4' - 0")	DOUBLE	12" o.c.	16" o.c.	+ 33.3 - 33.3
2.	STEEL	24 ga.	48" (4' - 0")	DOUBLE	12" o.c.	16" o.c.	+ 33.3 - 33.3
NOTES: • Negative Pressure Outward/Positive Pressure Inward • Allowable design pressure(s) for allowable stress design (ASD). • Fastener Attachment to Steel Supports May Be Designed By A Qualified Design Professional As Required By The Florida Building Code For Site Specific Projects. • Diaphragm and axial load capacity are not included in this evaluation • Panels may be installed horizontally or vertically.							

Install the "UniLine R" wall panel assembly 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.

**Evaluation
Reference Data:**

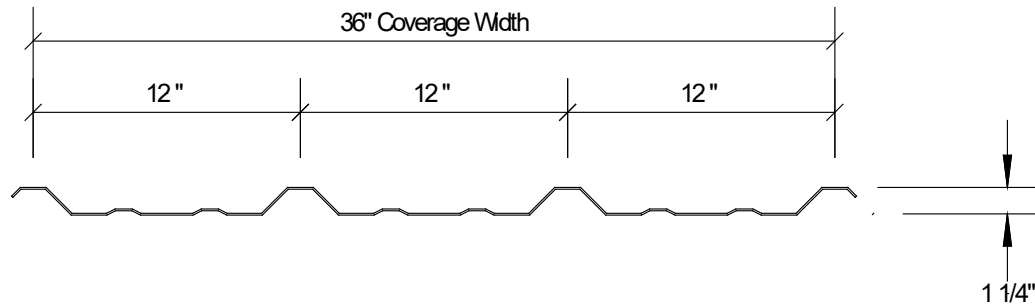
1. ASTM E330-02 Test Report
By Architectural Testing, Inc.(FBC Organization ID# TST 1558)
Report #D0864.03-109-44, Date: 4/7/14
2. Quality Assurance
Keystone Certifications, Inc. (FBC Organization ID# QUA 1824)
Englert, Inc. Licensee #420
3. Certification of Independence
By James L. Buckner, P.E. @ CBLUE Engineering
(FBC Organization # ANE 1916)

**Additional
Standards Tests:**

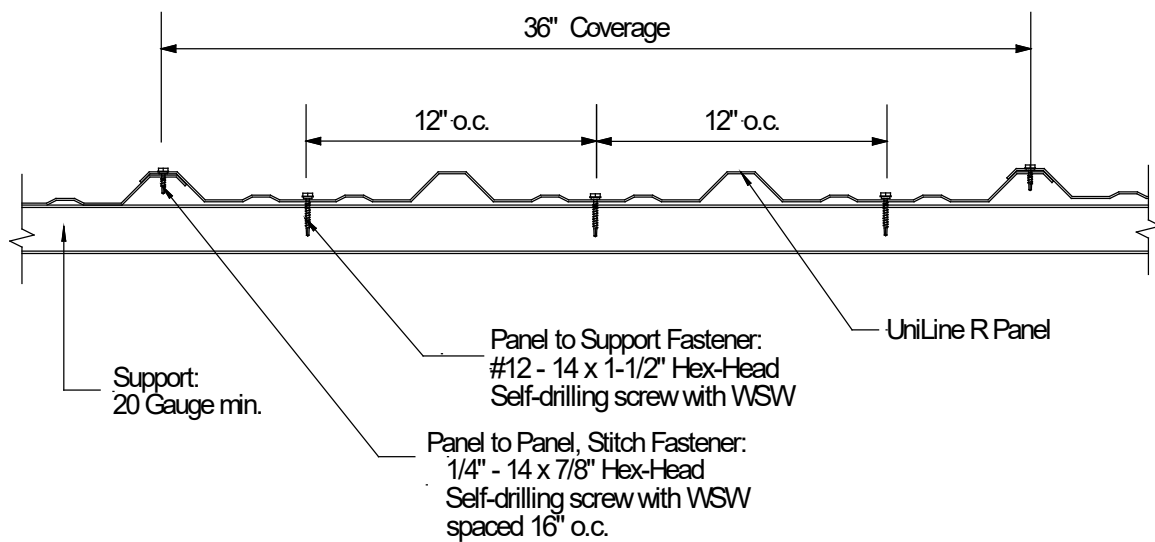
(Performed but not evaluated in this report.)

1. ASTM E331-00 Water Penetration Test & ASTM E283-04 Air Leakage Test
By Architectural Testing, Inc. (FBC Organization ID# TST 1558)
Report # D0864.03-109-44, Date: 4/7/14

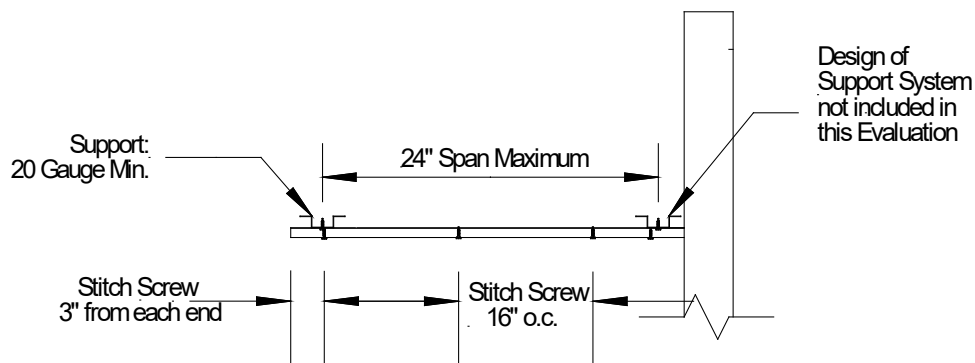
Installation Method Englert, Inc. "UniLine R" Wall Panel



PROFILE VIEW

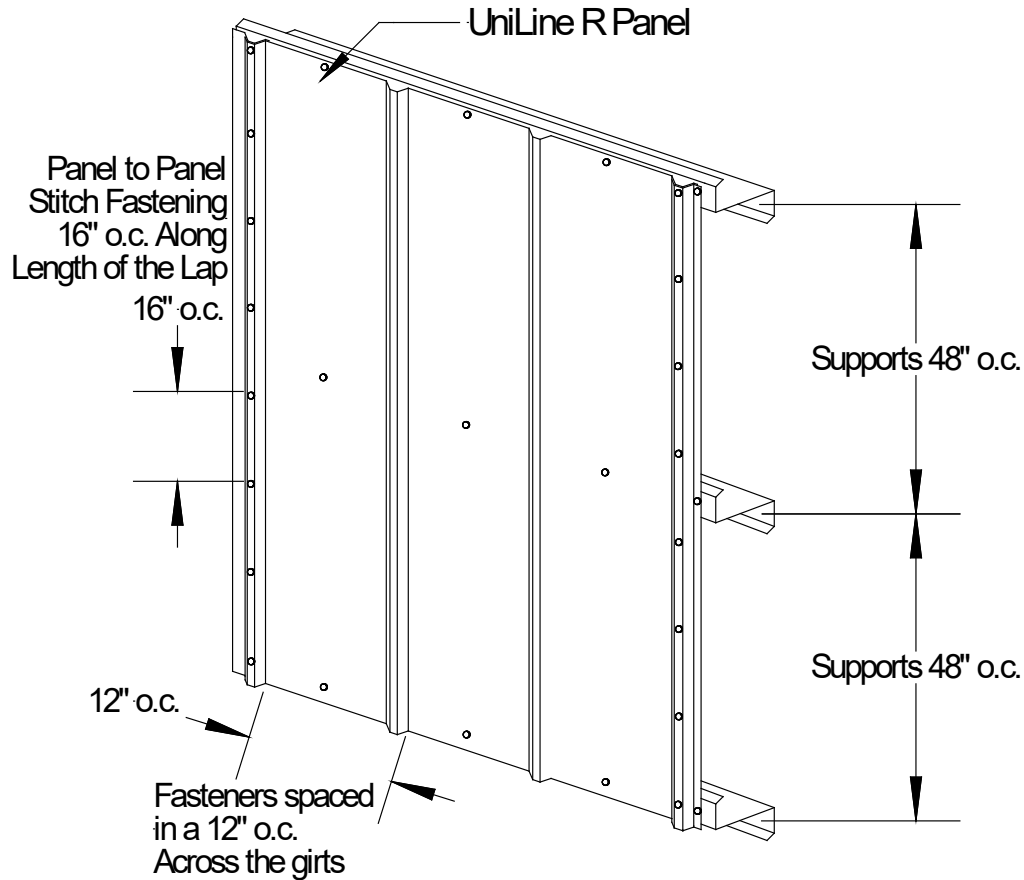


TYPICAL ASSEMBLY PROFILE VIEW
(TYPICAL FASTENING PATTERN ALONG SUPPORTS)



TYPICAL ASSEMBLY SECTION VIEW

Installation Method Englert, Inc. "UniLine R" Wall Panel



**TYPICAL ASSEMBLY
ISOMETRIC VIEW**

TABLE A ENGLERT "UniLine R" WALL PANEL ALLOWABLE LOADS							
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