

Evaluation Report

QUICK-SHIELD 155-2.5

Spray Applied Polyurethane Foam Roof System

Manufacturer:

SWD Urethanes

540 S Drew St
Mesa, AZ 85210
800-828-1394

for

Florida Product Approval

FL 41397.7 R1

Florida Building Code 8th Edition (2023)

Per Rule 61G20-3

Method: 1 - D

Category: Roofing

Sub - Category: Spray Applied Polyurethane Roof System

Spray Foam Product: QUICK-SHIELD 155-2.5

Description: Spray Polyurethane Foam Roof System
Recover Application over BUR-Gravel Roof System

Support: Concrete Deck

Prepared by:

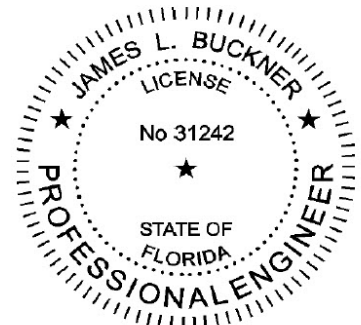
James L. Buckner, P.E., SECB
Florida Professional Engineer # 31242
Florida Evaluation ANE ID: 1916
Report No. 23-585.07-BUR-G-CONC-ER7
(Revises Report No. 21-401.07-BUR-G-CONC-ER7, FL41397.7 R0)
Date: 12/26/2023

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James L. Buckner, P.E.
FL31242

Manufacturer: SWD Urethane

Product Name: QUICK-SHIELD 155-2.5

Product Category: Roofing

Product Sub-Category: Spray Applied Polyurethane Roof System

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

Spray Foam Description: The Spray Polyurethane Foam is a two-component, closed-cell, spray applied polyurethane foam system. It is designed for use as a self-adhering, self-flashing, seamless roofing system providing wind uplift resistance for construction applications such as commercial, industrial and institutional projects.

Evaluated Models: QUICK-SHIELD 155-2.5

Evaluated Use: Recover Roof Applications

Product Assembly as Evaluated: Refer to Page 4 of this report for product assembly components/materials & standards:
Layers from Top to Bottom

- Liquid-Applied Coating (Self-adhered)
- Spray Polyurethane Foam (Spray Applied & Self Adhered)
- Generic Insulated Built-Up (BUR) Gravel Roof system
- (Mechanically Attached to Deck)

Support:

Type:
Concrete Deck

Description:

Material: Structural Concrete
Compressive Strength: 2,500 psi. Minimum

(Design of support is outside the scope of this evaluation.)

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

Performance:	Wind Uplift Resistance * Design Uplift Pressure: - 300 PSF * Allowable design pressure(s) for allowable stress design (ASD) with a margin of safety of 2 to 1.
Performance Standards:	The product described herein has been tested in compliance with: FM 4474 (11) – Evaluating the Simulated Wind Uplift Resistance of Roof Assemblies Using Static Positive and/or Negative Differential Pressures.
Test Equivalency:	The TAS 114-05 “J” standard version used to test the evaluated product assembly is equivalent with the prescribed standards in FM 4474-11, Appendix D adopted by the Florida Building Code 8th Edition (2023).
Code Compliance:	The product described herein has demonstrated compliance with the performance standards listed above as referenced in the Florida Building Code 8th Edition (2023), per Section 1504.3.1. International Building Code 2021, per Section 1504.3.1
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:	QUICK-SHIELD 155-2.5 Spray Polyurethane Foam shall be installed by a SWD Urethane - Roof Foam and Coatings Authorized spray foam applicator trained in the processing and application of SPF systems as well as the plural component polyurethane dispensing equipment. - The Recovering requirements "Section 1511 Existing Roofing" FBC 8th (2023) shall be complied with as a condition of this evaluation - Compliance with the requirements of section 1511 is site specific and therefore 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”. <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.

- The Scope of this evaluation is limited to structural uplift properties.
- Design of support system is outside the scope of this report. Deck shall be in compliance with applicable building code.
- 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 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity through s, **UL LLC**. (FBC Organization ID# QUA 9625).

**Components/Materials
(As Evaluated):****Liquid-Applied Coatings**

Per manufacturer's guidelines in compliance with FBC Section 1507.14.3.

QUICK-SHIELD 155-2.5 Spray Polyurethane Foam - Typical Vlaues

Material:	Polyurethane
Core Density:	2.5 pcf (per ASTM D1622)
Compressive Strength:	45 psi (per ASTM D1621)
Tensile Strength:	70 psi (per ASTM D1623)

Installation:**Installation Method:**

- **Surface Preparation:**
The surface intended to be sprayed with the **QUICK-SHIELD 155-2.5** Spray Polyurethane Foam must be clean, dry and free of all dirt and contaminants.
- **Foam Application:**
Apply a minimum of 2" thick of **QUICK-SHIELD 155-2.5** Spray Polyurethane Foam over the base sheet.
- **Protective Coating Application:**
Apply protective coating per manufacturer's installation guideline.

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.

Referenced Data:

1. TAS 114-05 (J) Uplift Resistance Test
By Atlantic Caribbean Roof Consulting, LLC.
(FBC Organization #TST ID: 4671)
Report #: ACRC 21-027, Date: 12 / 08 /21
2. Equivalency of Test Standard Certification
By James L. Buckner, P.E. @ CBUCK Engineering (FBC Organization # ANE 1916)
3. Quality Assurance
UL LLC. (FBC Organization ID# QUA 9625)
4. Certification of Independence
By James L. Buckner, P.E. @ CBUCK Engineering
(FBC Organization # ANE 1916)