

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

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

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www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

NCFI Polyurethanes P.O. Box 1528 Mount Airy, NC 27030-1528

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 Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: NCFI EnduraTech Sprayed Polyurethane Foam Systems over Steel Deck

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and 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 # 21-0916.04 and consists of pages 1 through 13. The submitted documentation was reviewed by Alex Tigera

05/08/25

(MIAMI-DADE COUNTY) APPROVED NOA No.: 25-0314.04 Expiration Date: 11/29/26 Approval Date: 05/08/25 Page 1 of 13

ROOFING SYSTEM APPROVAL

<u>Category:</u> Roofing

Sub-Category: Spray Applied Polyurethane Foam

Materials: Polyurethane Foam

Deck Type:SteelMaximum Design Pressure-427.5 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

Product	<u>Dimensions</u>	<u>Test</u> Specifications	Product Description
NCFI EnduraTech 10-016	N/A	TAS 110	Polyurethane spray applied foam intended for roofing applications.
NCFI Spray Adhesive 13-003	N/A	TAS 110	Polyurethane spray applied foam intended for roofing applications.

TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS

Dwoduat	Dimensions	Test Specifications	Product	Manufacturor
Product	·	Specifications	Description	<u>Manufacturer</u>
Elastomeric Roof Coating	N/A	ASTM D 6083	Elastomeric coating for application over polyurethane spray applied foam.	Generic. (with current NOA)
Black Resin Coated Mesh	48" x 150'	N/A	Black resin coated mesh	Saint-Gobain
Hilco Fiberglass Fabric	Various	N/A	Mesh impregnated with a highly specialized asphaltic material.	E.L. Hilts & Co.
High Density Wood Fiberboard	Various	TAS 110	High Density Wood Fiber insulation board.	Generic. (with current NOA)
Polyisocyanurate Insulation	Various	TAS 110	Polyisocyanurate Insulation board	Generic. (with current NOA)
Dens Deck	Various	TAS 110	Water resistant gypsum board	G-P Gypsum Corp.
OMG XHD	Various	TAS 114	Insulation fastener	OMG, Inc. (with current NOA)
3 in. Round Metal Plate	3" round	TAS 114	3" round galvalume AZ55 steel plate	OMG, Inc. (with current NOA)
Olympic Polypropylene (P)	3.25" round	TAS 114	Polypropylene plastic plate	OMG, Inc. (with current NOA)
TAPCO 410 quick dry asphalt	N/A	ASTM D 41	Primer used as a bonding coat.	Tropical Asphalt Products Corporation



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EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Test Name/Report	Date
Celotex Corporation Testing Service	258132	Physical Properties	05/97
		ASTM C 273	
		ASTM D 1621	
		ASTM D 1623	
		ASTM D 2856	
		ASTM E 96	
Underwriters Laboratories Inc.	01NK20266	UL 1897	06/20/01
PRI Asphalt Technologies	NCF-003-02-01	ASTM D 2842	02/13/01
		ASTM D 2126	
	TDC-011-02-01	TAS 114-H	02/28/05
PRI Construction Materials Technologies	NCF-028-02-01	ASTM C 518	11/16/09
C	NCF-022-02-01	TAS 110	10/21/08
	NCF-044-02-01	Physical Properties	10/13/15
	622T0024A.01	ASTM C273	03/17/25
	622T0024A.02	ASTM C273	03/17/25
IRT & Consulting of S. Florida, Inc.	01-015, 01-016, 01-018,	TAS 114-J	06/12/01
-	01-019,	TAS 114-J	06/13/01
	01-020, 01-021	TAS 114-D	06/13/01
Factory Mutual Research Corp.	3016938	4470/4880	01/13/05
•	3035470		05/07/09
Atlantic & Caribbean Roof Consulting,	ACRC 14-003-R1	TAS 114-J	03/25/15
LLC	ACRC 14-006-R1	TAS 114-D	03/25/15
	ACRC 14-007-R1	TAS 114-D	03/25/14
	ACRC 14-008-R1	TAS 114-D	03/25/15
DECK STRESS ANALYSIS CALCULA	TIONS/REPORTS		
Engineer/Agency	<u>Identifier</u>	Assemblies	<u>Date</u>

Letter



Randall Fowler, P.E.

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04/09/15

AMBIENT HUMIDITY APPLICATION LIMITS SPRAYED POLYURETHANE FOAM

Maximum Wet Bulb and Relative Humidity for a Given Dry Bulb Reading Table 1					
Dry Bulb Temp.	Wet Bulb Temp.	R.H.	Dry Bulb Temp.	Wet Bulb Temp.	R.H.
(°F)	(°F)	(%)	(°F)	(°F)	(%)
45	401/2	67	73	68	79
46	411/2	68	74	70	78
47	421/2	68	75	70	78
48	431/2	69	76	70½	77
49	431/2	69	77	71½	77
50	451/2	70	78	72	76
51	461/2	70	79	73	76
52	47½	71	80	73½	75
53	481/2	71	81	74½	74
54	491/2	72	82	75	73
55	501/2	72	83	75½	72
56	51½	73	84	76	71
57	521/2	73	85	77	70
58	531/2	74	86	77½	69
59	541/2	74	87	78	68
60	551/2	75	88	78½	66
61	561/2	75	89	79	65
62	571/2	76	90	79½	64
63	581/2	77	91	80	63
64	591/2	77	92	80½	62
65	601/2	78	93	81	60
66	61½	78	94	81½	59
67	621/2	79	95	82	58
68	631/2	79	96	82	56
69	641/2	80	97	82½	54
70	65½	80	98	82½	53
71	661/2	80	99	83	52
72	671/2	79	100	83	50

NOTE: Spray polyurethane foam shall not be sprayed when environmental conditions are beyond the temperature and relative humidity limits listed in this Table.



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APPROVED ASSEMBLIES:

Deck Type 2: Steel, Insulated

Deck Description: Minimum 22 ga., 53.5 ksi, vented corrugated 1.5" WR Type B steel decking.

System Type A(1): Sprayed polyurethane foam covered with an elastomeric coating adhered to mechanically

fastened insulation layer.

All General and System Limitations apply.

Note: All layers shall be simultaneously adhered using NCFI Spray Adhesive 13-003. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Insulation Layer Insulation Fasteners Fastener Density/ft²

SECUROCK Gypsum Fiber Roof Board

Minimum ½" thick N/A N/A

Polyurethane Foam

The polyurethane foam shall be applied uniformly over the entire surface a minimum of **Application:** 1" thick in compliance with the requirements set forth in Roofing Application Standard

RAS 109. The sprayed polyurethane foam shall be feathered at the edges to produce a

smooth transition.

Protective Coating

Shall apply a Miami-Dade County approved elastomeric roof coating with a current NOA **Application:**

in accordance with the guidelines listed in the NOA.

Polyurethane foam surface shall be free of moisture, dust, debris, oils, tars, grease or other materials that will impair adhesion of the protective coverings. Any damage or defects to the polyurethane foam surface shall be repaired prior to the coating application. The base coat shall be applied the same day as the foam when possible. If more than 72 hours elapse prior to the application of the base coat, the polyurethane foam shall be inspected

for UV degradation.

Maximum Design

Pressure: -427.5 psf (See General Limitation #9)



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Deck Type 2: Steel, Insulated

Deck Description: Minimum 22 ga., Type B, WR G-90 steel decking attached to steel supports spaced 6 ft.

o.c. 5/8 puddle welds and washers fasteners spaced 6" o.c. (at the bottom flute), and with

side laps attached with Buildex Teks 1 fasteners spaced at max. of 6" o.c.

System Type C(1): Sprayed polyurethane foam covered with an elastomeric coating adhered to mechanically

fastened insulation layer.

All General and System Limitations apply.

Note: All layers shall be simultaneously fastened; see insulation layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Insulation Layer	Insulation Fasteners	<u>Fastener</u> <u>Density/ft²</u>
Any Miami-Dade Approved Polyisocyanurate Minimum 1.5" thick	OMG XHD with 3 in. Round Metal Plate	1:2 ft ²
Dens Deck Prime Minimum ¼" thick	OMG XHD with 3 in. Round Metal Plate	1:2 ft ²
Any Miami-Dade Approved High Density Wood Fiberboard Minimum ½" thick	OMG XHD with 3 in. Round Metal Plate	1:2 ft ²

Polyurethane Foam Application:

The polyurethane foam shall be applied uniformly over the entire surface a minimum of 1" thick in compliance with the requirements set forth in Roofing Application Standard RAS 109. The sprayed polyurethane foam shall be feathered at the edges to produce a smooth transition.

Protective Coating Application:

Shall apply a Miami-Dade County approved elastomeric roof coating with a current NOA in accordance with the guidelines listed in the NOA.

Polyurethane foam surface shall be free of moisture, dust, debris, oils, tars, grease or other materials that will impair adhesion of the protective coverings. Any damage or defects to the polyurethane foam surface shall be repaired prior to the coating application. The base coat shall be applied the same day as the foam when possible. If more than 72 hours elapse prior to the application of the base coat, the polyurethane foam shall be inspected for UV degradation.

Maximum Design

Pressure: -45 psf (See General Limitation #9)



NOA No.: 25-0314.04 Expiration Date: 11/29/26 Approval Date: 05/08/25 Page 6 of 13 **Deck Type 2:** Steel, Insulated

Deck Description: Minimum 22 ga. 53.5ksi, Vented corrugated 1.5" WR Type B G-90 steel decking

attached to steel supports spaced 6 ft. o.c. 5/8 puddle welds and washers fasteners spaced 6" o.c. (at the bottom flute), and with side laps attached with #12 SD screws 12" o.c.

This tested assembly has been analyzed for allowable deck stress. See Evidence

Submitted Table.

System Type C(2): Sprayed polyurethane foam covered with an elastomeric coating adhered to mechanically

fastened insulation layer.

All General and System Limitations apply.

Note: All layers shall be simultaneously fastened; see insulation layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Insulation LayerInsulation FastenersFastenerDensity/ft²

SECUROCK Gypsum Fiber Roof Board

Minimum ½" thick OMG XHD with 3 in. Round 1:2 ft²
Metal Plate

Polyurethane Foam

Application:

The polyurethane foam shall be applied uniformly over the entire surface a minimum of 1" thick in compliance with the requirements set forth in Roofing Application Standard RAS 109. The sprayed polyurethane foam shall be feathered at the edges to produce a smooth transition.

Protective Coating Application:

Shall apply a Miami-Dade County approved elastomeric roof coating with a current NOA in accordance with the guidelines listed in the NOA.

Polyurethane foam surface shall be free of moisture, dust, debris, oils, tars, grease or other materials that will impair adhesion of the protective coverings. Any damage or defects to the polyurethane foam surface shall be repaired prior to the coating application. The base coat shall be applied the same day as the foam when possible. If more than 72 hours elapse prior to the application of the base coat, the polyurethane foam shall be inspected for UV degradation.

Maximum Design

Pressure: -67.5 psf (See General Limitation #7)



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Deck Type 2: Steel, Non-Insulated

Deck Description: Minimum 22 ga., 33 ksi. Type B steel decking attached to steel supports spaced 6 ft. o.c.

5/8 puddle welds and washers fasteners spaced 6" o.c. (at the bottom flute), and with side

laps attached with Buildex Teks 1 fasteners spaced at max. of 6" o.c.

System Type F(1): Sprayed polyurethane foam covered with an elastomeric coating adhered to deck.

All General and System Limitations apply.

Deck Preparation: Seal all deck side laps with spray-applied polyurethane foam and then install an asphalt

coated fiber glass mesh fabric having a 20×10 weave and meeting ASTM D 1668 Type I. The mesh is to be installed over the entire surface of the metal deck in accordance with

NCFI specifications and recommendations.

Surface Preparation: Metal surfaces should cleaned with TSP or equal.

For ferrous metal, remove loose rust and unsound primer from shop-primed iron and steel surfaces by scraping, wire brushing or sandblasting. Prime according to NCFI recommendations. For non-ferrous metals, clean and prime aluminum, copper and

stainless steel surfaces as recommended by NCFI.

Primers shall be applied in accordance with their manufacturers instructions. All primers

must be thoroughly dry and cured prior to foam application.

Polyurethane Foam Application:

The polyurethane foam shall be applied uniformly over the entire surface a minimum of 1" thick in compliance with the requirements set forth in Roofing Application Standard RAS

109. The sprayed polyurethane foam shall be feathered at the edges to produce a smooth

transition.

Protective Coating Application:

Shall apply a Miami-Dade County approved elastomeric roof coating with a current NOA

in accordance with the guidelines listed in the NOA.

Polyurethane foam surface shall be free of moisture, dust, debris, oils, tars, grease or other materials that will impair adhesion of the protective coverings. Any damage or defects to the polyurethane foam surface shall be repaired prior to the coating application. The base coat shall be applied the same day as the foam when possible. If more than 72 hours elapse prior to the application of the base coat, the polyurethane foam shall be inspected for UV

degradation.

Maximum Design

Pressure: -82.5 psf (See General Limitation #9)



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Deck Type 2: Steel, Non-Insulated

Minimum 22 ga., ASTM A1008 SS Grade 80 steel decking attached to steel supports **Deck Description:**

spaced 6 ft. o.c. with ITW Buildex Traxx 5 fasteners spaced 6" o.c. (at the bottom flute), and with side laps attached with ITW Buildex Traxx 1 fasteners spaced at max. of 24"

o.c.

System Type F(2): Sprayed polyurethane foam covered with an elastomeric coating adhered to deck.

All General and System Limitations apply.

Surface Preparation: Metal surfaces should cleaned with TSP or equal.

> For ferrous metal, remove loose rust and unsound primer from shop-primed iron and steel surfaces by scraping, wire brushing or sandblasting. Prime according to NCFI recommendations. For non-ferrous metals, clean and prime aluminum, copper and

stainless steel surfaces as recommended by NCFI.

Primers shall be applied in accordance with their manufacturers instructions. All primers

must be thoroughly dry and cured prior to foam application.

Polyurethane Foam Application:

The polyurethane foam shall be applied uniformly over the entire surface a minimum of 1" thick in compliance with the requirements set forth in Roofing Application Standard RAS 109. The sprayed polyurethane foam shall be feathered at the edges to produce a smooth

transition.

Protective Coating Application:

Shall apply a Miami-Dade County approved elastomeric roof coating with a current NOA

in accordance with the guidelines listed in the NOA.

Polyurethane foam surface shall be free of moisture, dust, debris, oils, tars, grease or other materials that will impair adhesion of the protective coverings. Any damage or defects to the polyurethane foam surface shall be repaired prior to the coating application. The base coat shall be applied the same day as the foam when possible. If more than 72 hours elapse prior to the application of the base coat, the polyurethane foam shall be inspected for UV

degradation.

Maximum Design

-105 psf (See General Limitation #9) **Pressure:**



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Deck Type 2: Steel, Non-Insulated

Deck Description: Minimum 22 ga., 53.5 ksi, vented corrugated 1.5" WR Type B steel decking.

System Type F(3): Sprayed polyurethane foam covered with an elastomeric coating adhered to deck.

All General and System Limitations apply.

Surface Preparation: N/A

Polyurethane Foam Application:

The polyurethane foam shall be applied uniformly over the entire surface a minimum of 1" thick in compliance with the requirements set forth in Roofing Application Standard RAS 109. The sprayed polyurethane foam shall be feathered at the edges to produce a smooth

transition.

Protective Coating Application:

Shall apply a Miami-Dade County approved elastomeric roof coating with a current NOA in accordance with the guidelines listed in the NOA.

Polyurethane foam surface shall be free of moisture, dust, debris, oils, tars, grease or other materials that will impair adhesion of the protective coverings. Any damage or defects to the polyurethane foam surface shall be repaired prior to the coating application. The base coat shall be applied the same day as the foam when possible. If more than 72 hours elapse prior to the application of the base coat, the polyurethane foam shall be inspected for UV degradation.

Maximum Design

Pressure: -255 psf (See General Limitation #9)



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Deck Type 2: Steel, Non-Insulated

Minimum 22 ga., 53.5 ksi, vented corrugated 1.5" WR Type B steel decking. **Deck Description:**

System Type F(4): Sprayed polyurethane foam covered with an elastomeric coating adhered to deck.

All General and System Limitations apply.

Surface Preparation: N/A

Reinforcment Mesh: Seal all deck side laps with spray-applied polyurethane foam and then install an Saint-

Gobain resin coated mesh. The mesh is to be loose laid over the entire surface of the metal

deck in accordance with NCFI specifications and recommendations.

Polyurethane Foam

The polyurethane foam shall be applied uniformly over the entire surface a minimum of 1" **Application:** thick in compliance with the requirements set forth in Roofing Application Standard RAS 109. The sprayed polyurethane foam shall be feathered at the edges to produce a smooth

transition.

Protective Coating Application:

Shall apply a Miami-Dade County approved elastomeric roof coating with a current NOA

in accordance with the guidelines listed in the NOA.

Polyurethane foam surface shall be free of moisture, dust, debris, oils, tars, grease or other materials that will impair adhesion of the protective coverings. Any damage or defects to the polyurethane foam surface shall be repaired prior to the coating application. The base coat shall be applied the same day as the foam when possible. If more than 72 hours elapse prior to the application of the base coat, the polyurethane foam shall be inspected for UV

degradation.

Maximum Design

Pressure: -395 psf (See General Limitation #9)



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GENERAL LIMITATIONS:

- 1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 2. All work shall be performed by a contractor licensed to perform roofing in Miami-Dade County and a NCFI trained and approved applicator. The contractor shall be familiar with the details and specifications published by NCFI and the elastomeric coating manufacturer.
- 3. Spray polyurethane foam shall not be sprayed when ambient temperature is within 5 degrees of the dew point. Ambient humidity applications limits shall be as listed in Table 1 herein. Contractor shall monitor and record environmental conditions in the Job Log in compliance with RAS 109. Job Log shall be maintained at the job site and accessible to The Building Official.
- 4. Flashings and waterproof coverings for expansion joints shall be of compatible materials and in accordance with NCFI published literature. Installation of system shall be in accordance with NCFI published literature.
- 5. Miscellaneous materials such as adhesives, elastomeric caulking compounds, metal, vents and drains shall be a composite part of the roof system and shall be compatible with the foam and coating.
- 6. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
- 7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
- 8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and the wind load requirements of applicable building code.
- 9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)

END OF THIS ACCEPTANCE



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GREEN SUSTAINABLE ATTRIBUTES (GSA)

SCOPE: This document is solely for the purpose of verification of Sustainable Attributes of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control.

G.2 - THERMAL RESISTANCE		
R-Value	ue Insulation / Thickness Assemblies:	
6.3	1 inch	All Assemblies utilizing NCFI 10-016 SPF
13.4	2 inches	All Assemblies utilizing NCFI 10-016 SPF
27.4	4 inches	All Assemblies utilizing NCFI 10-016 SPF



Alex Tigera Roofing Product Control Examiner NOA No.: 14-0717.04 Expiration Date: 11/29/16

Approval Date: 03/03/16