MIAMI-DADE

BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

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 by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) 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 Division (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. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division 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 and the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: NCFI EnduraTech Sprayed Polyurethane Foam Systems over Concrete 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 No. 06-0712.05 and consists of pages 1 through 6.
The submitted documentation was reviewed by Jorge L. Acebo.

MIAMI-DADE COUNTY APPROVED

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Spray Applied Polyurethane Foam
Materials:	Polyurethane Foam
Deck Type:	Concrete
Maximum Design Pressure	**-470 psf**

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

Product	Dimensions	Test Specifications	Product Description
NCFI EnduraTech 10-011	N/A	TAS 110	Polyurethane spray applied foam intended for roofing applications.

TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS

Product	Dimensions	Test Specifications	Product Description	Manufacturer
Elastomeric Roof Coating	N/A	ASTM D 6083	Elastomeric coating for application over polyurethane spray applied foam.	Generic. (with current PCA)
TAPCO 410 quick dry asphalt	N/A	ASTM D 41	Primer used as a bonding coat.	Tropical Asphalt Products Corporation

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Test Name/Report	Date
Celotex Corporation Testing Service	258132	Physical Properties ASTM C 273 ASTM D 1621 ASTM D 1623 ASTM D 2856 ASTM E 96	05/97
Underwriters Laboratories Inc.	01NK20266	UL 1897	06/20/01
PRI Asphalt Technologies	NCF-003-02-01	ASTM D 2842 ASTM D 2126	02/13/01
	TDC-011-02-01	TAS 114-H	02/28/05
PRI Construction Materials Technologies	NCF-028-02-01 NCF-022-02-01	ASTM C 518 TAS 110	11/16/09 10/21/08
IRT & Consulting of S. Florida, Inc.	01-015, 01-016, 01-018, 01-019, 01-020, 01-021	TAS 114-J TAS 114-J TAS 114-D	06/12/01 06/13/01 06/13/01
Factory Mutual Research Corp.	3016938 3035470	4470/4880	01/13/05 05/07/09

AMBIENT HUMIDITY APPLICATION LIMITS
SPRAYED POLYURETHANE FOAM

Maximum Wet Bulb and Relative Humidity for a Given Dry Bulb Reading
Table 1

Dry Bulb Temp. (°F)	Wet Bulb Temp. (°F)	R.H. (%)		Dry Bulb Temp. (°F)	Wet Bulb Temp. (°F)	R.H. (%)
45	40½	67		73	68	79
46	41½	68		74	70	78
47	42½	68		75	70	78
48	43½	69		76	70½	77
49	43½	69		77	71½	77
50	45½	70		78	72	76
51	46½	70		79	73	76
52	47½	71		80	73½	75
53	48½	71		81	74½	74
54	49½	72		82	75	73
55	50½	72		83	75½	72
56	51½	73		84	76	71
57	52½	73		85	77	70
58	53½	74		86	77½	69
59	54½	74		87	78	68
60	55½	75		88	78½	66
61	56½	75		89	79	65
62	57½	76		90	79½	64
63	58½	77		91	80	63
64	59½	77		92	80½	62
65	60½	78		93	81	60
66	61½	78		94	81½	59
67	62½	79		95	82	58
68	63½	79		96	82	56
69	64½	80		97	82½	54
70	65½	80		98	82½	53
71	66½	80		99	83	52
72	67½	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.

APPROVED ASSEMBLIES:

Deck Type 3: Concrete

Deck Description: 2500 psi structural concrete or concrete plank

System Type: Sprayed polyurethane foam covered with an elastomeric coating.

All General and System Limitations apply.

Surface Preparation: Deck shall be free of loose dirt, grease, oil or other contaminants prior to priming or foam application. Remove loose dirt or debris by use of compressed air, vacuum or brooming. No washing shall be permitted. Oil, grease, release agents or other contaminants shall be removed with proper cleaning solutions.

Primers shall be applied in accordance with the manufacturers instructions. All primers must be thoroughly dry and cured prior to foam application.

All joint openings in concrete decks that exceed ¼ inch shall be grouted or caulked.

Polyurethane Foam Application: The polyurethane foam shall be applied uniformly over the entire entire surface a minimum of 2" thick in compliance with the requirements set forth in Roofing Application Standard TAS 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: -470 psf (See General Limitation #9)

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

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 Division.

G.2 - THERMAL RESISTANCE		
R-Value	**Insulation / Thickness**	**Assemblies:**
6.3	1 inch	All Assemblies utilizing NCFI 10-011 SPF
13.4	2 inches	All Assemblies utilizing NCFI 10-011 SPF
27.4	4 inches	All Assemblies utilizing NCFI 10-011 SPF