MIAMI-DADE COUNTY

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)

TTR ROOFING INTERNATIONAL INC.
521 Biddle Street
Waukesha, WI 53186

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: TTR007F Polyfoam and TTR007G adhesive with EPDM over Recover Decks

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 replaces NOA# 08-0317.01 and consists of pages 1 through 6.
The submitted documentation was reviewed by Alex Tigera.

MIAMI-DADE COUNTY APPROVED

ROOFING COMPONENT APPROVAL

Category:	Roofing
Sub-Category:	Spray Applied Polyurethane Roof System
Materials:	Polyurethane
Dect Type	Recover
Maximum Design Pressure	**-90 psf**

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

Product	Dimensions	Test Specifications	Product Description
TTR 007F	N/A	TAS 110	Polyurethane spray applied foam that utilizes an HFC blowing agent intended for roofing applications.
TTR007G	N/A	TAS 110	Two-part spray applied polyurethane foam used to adhere single ply roofing to insulation.

MANUFACTURING LOCATION:

1. Sarasota, FL.

TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS:

Product	Dimensions	Test Specifications	Product Description	Manufacturer
RubberGuard EPDM	Various	ASTM D 4637	EPDM Membrane	Firestone Building Products Co.
RubberGuard ECO White EPDM	Various	ASTM D 4637	EPDM Membrane	Firestone Building Products Co.

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Test Name/Report	Date
PRI Construction Materials Technologies	GWI-003-02-01	TAS 110	01/09/07
	GWI-002-02-201	ASTM D 6083 Fed Spec TT-C-555B	01/09/07
	TTRI-001-02-01	ASTM D 1621 ASTM D 1622 ASTM D 2126 ASTM D 2856 ASTM E 96	11/12/09
Underwriters Laboratories	File R5663 Project 07NK02171	UL 790	03/13/07
Factory Mutual	ID. 3023644	4470 ASTM E 108 TAS 114	02/02/07
Atlantic & Caribbean Roof Consulting, LLC.	ACRC 08-004	TAS 114 App. D	01/29/08
Southwest Research Institute	01.14431.01.325a 01.14431.01.325b	Fire Classification	09/01/09 11/30/09

APPROVED ASSEMBLIES:

Deck Type 7: Recover

Deck Description: Steel, Concrete, Granule Surfaced Modified Bitumen, Smooth Surface BUR, Gravel Surface BUR

System Type: Sprayed polyurethane foam covered with RubberGuard or RubberGuard Eco White EPDM membrane.

All General and System Limitations apply.

Surface Preparation: For recover applications, existing roof shall be in compliance with applicable Building Code and Roofing Application Standard RAS 109.

Substrate shall be primed in accordance with TTR Roofing International, LLC's recommendations, and shall be free of loose dirt, grease, oil or other contaminants prior to priming or foam application. Remove all 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 manufacturer's instructions. All primers must be thoroughly dry and cured prior to foam application.

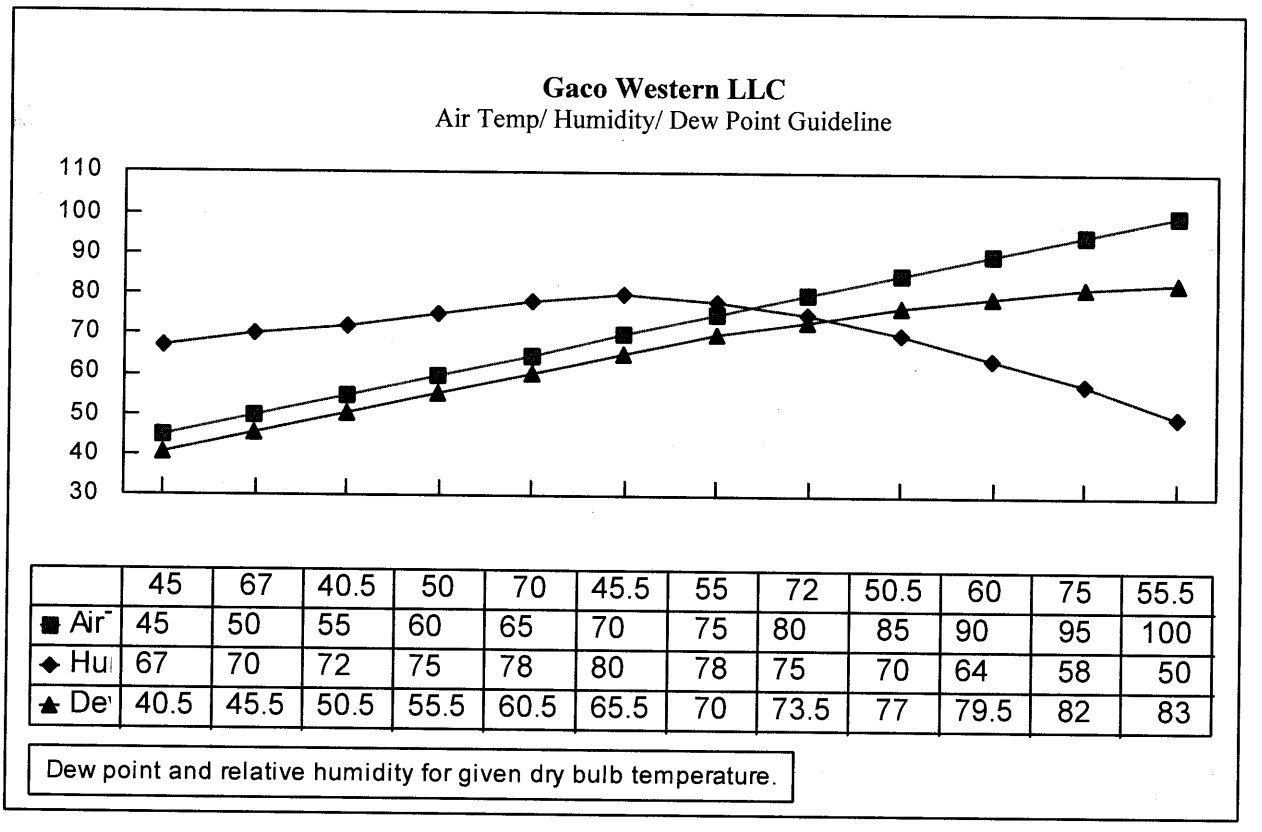
Polyurethane Foam Application: The polyurethane foam shall be applied directly and uniformly over the entire surface at the specified thickness in compliance with the requirements set forth in Roofing Application Standard RAS 109. The sprayed polyurethane foam shall be feathered at the edges to produce a smooth transition.

Top Layer Membrane: Polyurethane foam surface shall be free of moisture, dust, debris, oils, tars, grease or other materials that will impair adhesion of the RubberGuard or RubberGuard Eco White EPDM membrane. Any damage or defects to the polyurethane foam surface shall be repaired prior to the installation of the RubberGuard or RubberGuard Eco White EPDM membrane.

Once the TTR007F Polyurethane foam is set, attach the RubberGuard or RubberGuard Eco White EPDM membrane to the TTR007F Polyurethane foam surface with TTR007G adhesive foam. The TTR007G foam adhesive and RubberGuard or RubberGuard Eco White EPDM membrane shall be applied the same day as the foam when possible. If more than 72 hours elapse prior to the application of the coatings, the polyurethane foam shall be inspected for UV degradation.

Maximum Design Pressure: -90 psf.

TABLE 1
AMBIENT HUMIDITY APPLICATION LIMITS
SPRAYED POLYURETHANE FOAM



	45	67	40.5	50	70	45.5	55	72	50.5	60	75	55.5
■ Air	45	50	55	60	65	70	75	80	85	90	95	100
◆ Hu	67	70	72	75	78	80	78	75	70	64	58	50
▲ De	40.5	45.5	50.5	55.5	60.5	65.5	70	73.5	77	79.5	82	83

Dew point and relative humidity for given dry bulb temperature.

RECOVER SYSTEM LIMITATIONS:

1. The moisture content of an existing roof system shall be in compliance with applicable Building Code.

2. Existing low slope roof systems shall be tested for uplift resistance in compliance with Testing Application Standard TAS 124 to the calculated design pressures of the field, perimeter and corner areas, determined in compliance with applicable Building Code.

3. Lightning rods shall be masked prior to foaming. Lightning rod cables shall not be embedded in the polyurethane foam and should be removed prior to foaming. Electrical and mechanical conduits should be relocated or raised above the finished roof surface.

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. 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.

3. Flashings and waterproof coverings for expansion joints shall be of compatible materials and in accordance with TTR Roofing International, Inc. published literature.

4. 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.

5. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and the wind load requirements of applicable building code.

6. 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).

END OF THIS ACCEPTANCE