



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)

Firestone Building Products Company
250 West 96th Street
Indianapolis, IN 46260

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: Firestone UltraPly TPO Single Ply Roof Systems over Wood 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 NOA revises NOA No. 07-0130.04 and consists of pages 1 through 7.
The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 08-1118.02
Expiration Date: 04/19/12
Approval Date: 04/01/09
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ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Single Ply Roofing
Material:	TPO
Deck Type:	Wood
Maximum Design Pressure	-60 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
UltraPly TPO	Various	TAS 131-95	Reinforced TPO 0.045" to 0.080" thick membrane
UltraPly TPO Unsupported Flashing	.060 x 24" x 50'	TAS 131-95	Un-reinforced TPO
UltraPly TPO T-joint Cover	.060 x 4" x 4"	TAS 131-95	Un-reinforced TPO
UltraPly TPO Cut Edge Sealant	11 oz. Tube		Synthetic Rubber
Pourable Sealer S-10 Part A & B	1 can of Part A to 1 can of Part B		Two part Polyurethane sealant
Water Block Seal (S-20)	10 oz. Tube		Water Sealant
UltraPly TPO General Purpose Sealant	10.3 oz. Tube		Butyl Rubber Sealant
TPO QuickSeam Flashing	5-3/4" x 100'		Flashing material with pre-applied adhesive
UltraPly TPO QuickPrime	1 gallon & # gallon		Primer for TPO QuickSeam Flashing
UltraPly TPO Small and Large Pipe Flashing	Small and large	TAS 131-95	Un-reinforced TPO molded TPO pipe flashing
UltraPly TPO Inside & Outside Corners	Pre-molded corners	TAS 131-95	Un-reinforced TPO molded TPO inside and outside corners
UltraPly TPO Coated Metal	4' x 10' sheets		TPO coated metal
Metal Insulation Plate	.017 - .023 x 3"	FM 4450	Round Batten Plate
Termination Bar	.087 x 1.08" x 10'	3003-H14, 3105-H14 or 6063-T5, or T6 Aluminum	Aluminum bar for flashing terminations
EdgeGard System	Various	Various	Flashing materials and assemblies
UltraPly TPO Walkway Pad	X 50'		Recycled thermoplastic Walkway Pads
Splice Wash SW-100	5 gallon pail		Cleaning and prep solution for TPO



EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Underwriters Laboratories Inc.	01NK17982	UL790	06/05/01
	00NK43467	UL790	01/22/01
	99NK5401	UL790	08/17/99
	99NK3276	UL790	03/30/99
	98NK39140	UL790	05/13/99
	03NK34486	UL790	03/22/05
	Factory Mutual Research Corporation	3006983	4470
3004249		4470	11/03/99
3003830		4470	05/26/99
3001925		4470	05/24/99
3014031		4470	07/22/02
3014918		4470	12/17/03
3012931		4470	04/04/04
3016670		4470	04/29/04
3017120		4470	04/30/04
3020394		4470	09/03/04
3022988		4470	01/28/05
3019991		4470	09/20/05
Atlantic & Caribbean Roof Consulting, LLC		ACRC 06-030	TAS 114-J
Trinity ERD	F8960.04.08	TAS 114-F	04/15/08
	F8300.03.06-R1	TAS 131/ ASTM D6878	03/03/09



APPROVED ASSEMBLIES:

- Membrane Type:** Single Ply, TPO, Reinforced
Deck Type II: Wood, Insulated
Deck Description: 19/32" or greater plywood
System Type C(1): All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations apply.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL Minimum 1.2" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top 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.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
Plywood Minimum 19/32" thick	8	1:2.6 ft ²

Fire Barrier: (Optional) FR treated wood decks require a minimum 1/4" thick DensDeck board placed under the Base Insulation Layer.

Membrane: Firestone UltraPly TPO membrane fully adhered to the cover board with Firestone UltraPly Bonding Adhesive at a rate of 60 sq. ft./gal. per side. (Coverage area is for adhesive application onto each of the two mating surfaces). The roof cover side and end laps are sealed with a minimum 1.5 in. heat weld.

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



Membrane Type: Single Ply, TPO, Reinforced
Deck Type II: Wood, Insulated,
Deck Description: 19/32" or greater plywood attached to min. 2" x 4" supports spaced max. 24" with 10d nails spaced 4" o.c. at the perimeter of plywood and 8d nails spaced 6" o.c. at the field of plywood.
System Type D: Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+GL Minimum 1.5" thick	N/A	N/A
(Optional)Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, DensDeck Prime Minimum 0.25" thick	N/A	N/A
FiberTop C or E, High Density Wood Fiber, Sturdi-Top/High Density Wood Fiber Minimum 0.5" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of five (5) HD screws and 3" diameter HD insulation plates per 4' X 8' insulation board.

Fire Barrier: None.
Membrane: Firestone UltraPly TPO (45-80 mils) Reinforced Membrane attached to deck through the preliminary attached insulation as described below.
 Membrane is mechanically attached using Firestone HD Fasteners and 2 3/8" HD Seam Plates spaced 6" o.c. within minimum 5.5" wide laps. Laps are spaced maximum 90" o.c. and sealed with minimum 5" heat weld.

Maximum Design Pressure: -60 psf (See General Limitation #7)



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. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer.
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.
Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
5. 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.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
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 and/or RAS 137. 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 to Roofing Application Standard RAS 111 and applicable wind load requirements.
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.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9B-72 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



NOA No.: 08-1118.02
Expiration Date: 04/19/12
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APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Bldg. Pro. Co.
ISO 95+ GL Woodfiber Composite	Polyisocyanurate / Woodfiber insulation	Firestone Bldg. Pro. Co.
ISO 95+ GL Perlite Composite	Polyisocyanurate / perlite insulation	Firestone Bldg. Pro. Co.
Firestone 3/8" Dens-Deck	Fire resistant rated gypsum	Firestone Bldg. Pro. Co.
FiberTop, FiberTop C	Woodfiber insulation board	Firestone Bldg. Pro. Co.
ACFoam II	Polyisocyanurate foam insulation	Atlas Energy Products
High Density Wood Fiberboard	Non-Asphaltic fiberboard Insulation	Generic
Sturdi-Top / high density Wood fiberboard	Non-Asphaltic fiberboard Insulation	Georgia-Pacific
ENRGY 3	Polyisocyanurate foam insulation	Johns Manville
Multi-Max FA	Polyisocyanurate Insulation	RMAX

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Firestone HD Fastener	#15 Fastener for steel, Wood, concrete decks	N/A	Firestone Bldg. Pro. Co.
2.	Firestone AP Fastener	#14 Fastener for steel, Wood, concrete decks	N/A	Firestone Bldg. Pro. Co.
3.	UltraPly TPO 2-3/8" Barbed Seam Plate	Membrane seam attachment plate	2-3/8" diameter	Firestone Bldg. Pro. Co.
4.	Hex Insulation Plate	AZ 50 Galvalume steel stress plate	3-1/4" x 2-7/8"	Firestone Bldg. Pro. Co.
5.	Pre-Assembled AP fastener & plate	#14 w/insulation plate for steel, Wood, concrete decks	N/A	Firestone Bldg. Pro. Co.
6.	Pre-Assembled HD fastener & plate	#15 w/insulation plate for steel, Wood, concrete decks	N/A	Firestone Bldg. Pro. Co.
7.	Firestone HD Plus Fastener	Insulation and membrane fastener	Various	Firestone Bldg. Pro. Co.

