



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

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION

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NOTICE OF ACCEPTANCE (NOA)

Firestone Building Products Company, LLC
200 4th Ave. South
Nashville, TN 37201

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: Firestone Single Ply PVC Roof Systems over Steel 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 consists of pages 1 through 9.

The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 20-0415.02
Expiration Date: 11/04/26
Approval Date: 11/04/21
Page 1 of 9

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply
Material: PVC
Deck Type: Steel
Maximum Design Pressure: -90 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Firestone PVC	50, 60, 80 mils	ASTM D4434	PVC membrane for mechanical attachment and adhered applications.

APPROVED INSULATIONS:

TABLE 2

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
ACFoam-II	Polyisocyanurate foam insulation	Atlas Roofing Corporation

APPROVED FASTENERS/ADHESIVES:

TABLE 3

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	Dekfast DF-#12-PH3	Insulation and membrane fastener	Various	SFS Group USA, Inc.
2.	Dekfast DF-#15-PH3	Insulation fastener for use in concrete, wood and steel decks	Various	SFS Group USA, Inc.
3.	Dekfast DF-#14-PH3	Insulation and membrane fastener	Various	SFS Group USA, Inc.
4.	<i>Isoweld</i> F1-P-6.8-PVC	Round, coated galvalume plate (Silver and Gold) used for PVC membranes	3” round	SFS Group USA, Inc.



EVIDENCE SUBMITTED:

<u>Test Agency/Identifier</u>	<u>Name</u>	<u>Report</u>	<u>Date</u>
FM Approvals	3055227	FM 4470	05/21/15
UL LLC	R9228	UL 790	11/18/20
Trinity ERD	F42130.06.13	ASTM D4434	06/05/13
	F42130.06.13-1	ASTM D4434	06/05/13
	F42130.09.13	ASTM D4434	09/13/13
	SFS-SC10010.02.16	FM 4474/UL 1897/TAS 114	02/29/16

DECK STRESS ANALYSIS CALCULATIONS/REPORTS:

<u>Engineer/Agency</u>	<u>Identifier</u>	<u>Assemblies</u>	<u>Date</u>
Robert Nieminen, P.E.	Calculations Letter	D(1) ,D(2), D(3), D(4), D(5)	08/19/20



APPROVED ASSEMBLIES

- Membrane Type:** Single Ply, PVC
- Deck Type 2I:** Steel, Insulated
- Deck Description:** Min. 22 ga., Type B, Grade 80 steel deck secured 6” o.c. with ITW Buildex ICH TRAXX/5 screws to supports spaced max. 6 ft o.c. Side laps secured with ITW Buildex ICH TRAXX/1 screws spaced max 36” o.c.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.
- System Type D(1):** Membrane heat welded to fastener plates mechanically attaching insulation layer.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II Minimum 1.5” thick	N/A	N/A

Note: All layers of insulation shall have preliminary attachment prior to the application of Isoweld plates and fasteners as outline below. See membrane description for fastener details. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

- Membrane:** Firestone PVC (50-mil) roof cover shall be heat welded to bonding plates as specified below:
- Fastening:** Insulation shall be mechanically attached with Dekfast DF-#12-PH3, Dekfast DF-#14-PH3 and Dekfast DF-#15-PH3 fasteners and *Isoweld* F1-P-6.8-PVC plates spaced 12” o.c. in fastener rows spaced 60” o.c. Membrane shall be bonding to plates with SFS Isoweld 3000 stand-up bonding tool. Side laps are sealed with a minimum 1.5” heat weld.
- Maximum Design Pressure:** -45 psf. (See General Limitation #7.)



Membrane Type: Single Ply, PVC
Deck Type 2I: Steel, Insulated
Deck Description: Min. 22 ga., Type B, Grade 40 steel deck secured 6" o.c. with 5/8" diameter puddle welds to supports spaced max. 6 ft o.c. Side laps secured with ITW Buildex ICH TRAXX/1 screws spaced max 36" o.c.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.
System Type D(2): Membrane heat welded to fastener plates mechanically attaching insulation layer.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II Minimum 1.5" thick	N/A	N/A

Note: All layers of insulation shall have preliminary attachment prior to the application of Isoweld plates and fasteners as outline below. See membrane description for fastener details. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Firestone PVC (50-mil) roof cover shall be heat welded to bonding plates as specified below:
Fastening: Insulation shall be mechanically attached with Dekfast DF-#15-PH3 fasteners and *Isoweld* F1-P-6.8-PVC plates spaced 2' o.c. in staggered fastener rows spaced 2' o.c (grid pattern). Membrane shall be bonding to plates with SFS Isoweld 3000 stand-up bonding tool. Side laps are sealed with a minimum 1.5" heat weld.
Maximum Design Pressure: -52.5 psf. (See General Limitation #7.)



Membrane Type: Single Ply, PVC
Deck Type 2I: Steel, Insulated
Deck Description: Min. 22 ga., Type B, Grade 40 steel deck secured 6" o.c. with ITW buildex ICH TRAXX/5 screws to supports spaced max. 6 ft o.c. Side laps secured with ITW Buildex ICH TRAXX/1 screws spaced max 36" o.c.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.
System Type D(3): Membrane heat welded to fastener plates mechanically attaching insulation layer.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II Minimum 1.5" thick	N/A	N/A

Note: All layers of insulation shall have preliminary attachment prior to the application of Isoweld plates and fasteners as outline below. See membrane description for fastener details. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Firestone PVC (50-mil) roof cover shall be heat welded to bonding plates as specified below:
Fastening: Insulation shall be mechanically attached with Dekfast DF-#15-PH3 fasteners and *Isoweld* F1-P-6.8-PVC plates spaced 2' o.c. in staggered fastener rows spaced 3' o.c (grid pattern). Membrane shall be bonding to plates with SFS Isoweld 3000 stand-up bonding tool. Side laps are sealed with a minimum 1.5" heat weld.
Maximum Design Pressure: -52.5 psf. (See General Limitation #7.)



Membrane Type: Single Ply, PVC
Deck Type 2I: Steel, Insulated
Deck Description: Min. 22 ga., Type B, Grade 40 steel deck secured 6" o.c. with 5/8" diameter puddle welds to supports spaced max. 6 ft o.c. Side laps secured with ITW Buildex ICH TRAXX/1 screws spaced max 36" o.c.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.
System Type D(4): Membrane heat welded to fastener plates mechanically attaching insulation layer.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II Minimum 1.5" thick	N/A	N/A

Note: All layers of insulation shall have preliminary attachment prior to the application of Isoweld plates and fasteners as outline below. See membrane description for fastener details. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Firestone PVC (50-mil) roof cover shall be heat welded to bonding plates as specified below:
Fastening: Insulation shall be mechanically attached with Dekfast DF-#15-PH3 fasteners and *Isoweld* F1-P-6.8-PVC plates spaced 1.5' o.c. in staggered fastener rows spaced 3' o.c (grid pattern). Membrane shall be bonding to plates with SFS Isoweld 3000 stand-up bonding tool. Side laps are sealed with a minimum 1.5" heat weld.
Maximum Design Pressure: -82.5 psf. (See General Limitation #7.)



Membrane Type: Single Ply, PVC
Deck Type 2I: Steel, Insulated
Deck Description: Min. 22 ga., Type B, Grade 80 steel deck secured 6" o.c. with ITW Buildex ICH TRAXX/5 screws to supports spaced max. 5 ft o.c. Side laps secured with ITW Buildex ICH TRAXX/1 screws spaced max 30" o.c.
This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.
System Type D(5): Membrane heat welded to fastener plates mechanically attaching insulation layer.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the following.

<u>Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II Minimum 1.5" thick	N/A	N/A

Note: All layers of insulation shall have preliminary attachment prior to the application of Isoweld plates and fasteners as outline below. See membrane description for fastener details. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Firestone PVC (50-mil) roof cover shall be heat welded to bonding plates as specified below:
Fastening: Insulation shall be mechanically attached with Dekfast DF-#15-PH3 fasteners and *Isoweld* F1-P-6.8-PVC plates spaced 6" o.c. in fastener rows spaced 60" o.c. Membrane shall be bonding to plates with SFS Isoweld 3000 stand-up bonding tool. Side laps are sealed with a minimum 1.5" heat weld.
Maximum Design Pressure: -90 psf. (See General Limitation #7.)



STEEL DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117 and/or RAS 137, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.

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 Engineer, 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 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE

