



**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
310 East 96th Street
Indianapolis, IN 46240**

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 (MD) Single Ply Roof Systems over Wood 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 consists of pages 1 through 5.

The submitted documentation was reviewed by Jorge L. Acebo.



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ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply
Material: TPO
Deck Type: Wood
Maximum Design Pressure -45 psf

TABLE 1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

| <u>Product Name</u> | <u>Dimensions</u> | <u>Test Specifications</u> | <u>Product Description</u> |
|--------------------------------|--|----------------------------|---|
| Firestone UltraPly TPO (MD) | 45", 75", 96", 120" or 148" wide x 100' long x 45, 60, 70 or 80 mils thick | TAS 131 | Polyester reinforced Thermoplastic Olefin single ply membrane. |
| UltraPly Bonding Adhesive (MD) | 5 gallon pails | Proprietary | Solvent based, contact adhesives for bonding of roof membrane to substrate. |
| Firestone Metal Batten Strip | 1" wide x 0.046" thick x 10 ft. long | TAS 110 | Batten bar for mechanical attachment of membrane |
| Firestone Polymer Batten Strip | 1" wide x 0.05" thick x 250' long. Holes pre-punched 6" o.c. | Proprietary | Batten strip for mechanical attachment of membrane |
| Firestone ISO Twin Pack | | Proprietary | Insulation Adhesive |

TABLE 2

APPROVED INSULATIONS:

| <u>Product</u> | <u>Product Description</u> | <u>Manufacturer</u> (With current NOA) |
|---------------------------------|--|---|
| AC Foam II | Isocyanurate insulation | Atlas Roofing Corp. |
| ACFoam III | Isocyanurate insulation | Atlas Roofing Corp. |
| AC Foam composite | Isocyanurate insulation with perlite facer | Atlas Roofing Corp. |
| H-Shield | Isocyanurate insulation | Hunter Panels |
| H-Shield-WF | Isocyanurate insulation with wood fiberboard facer | Hunter Panels |
| E'NRG'Y 2 Plus, ENRGY 3 Plus | Isocyanurate insulation with wood fiberboard facer | Johns Manville |
| ENRGY 2, ENRGY 3 | Isocyanurate Insulation | Johns Manville |
| Multi-Max FA | Isocyanurate insulation | R-Max, Inc |
| Thermarroof composite | Isocyanurate insulation with perlite facer | R-Max, Inc |
| High Density Fiberboard | Wood fiberboard insulation | The Celotex Corp. |
| DensDeck | Silicon treated gypsum | G-P Gypsum |
| Securock | Gypsum | US Gypsum |



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TABLE 3

APPROVED FASTENERS:

| <u>Fastener No.</u> | <u>Product</u> | <u>Product Description</u> | <u>Manufacturer (With current NOA)</u> |
|---------------------|---------------------|-----------------------------------|--|
| 1. | SFS Intec Fasteners | Insulation and membrane fasteners | SFS Intec |
| 2. | Olympic Fasteners | Insulation and membrane fasteners | Olympic Manufacturing |
| 3. | Tru-Fast Fasteners | Insulation and membrane fasteners | Tru-Fast Corporation |
| 4. | Firestone Fasteners | Insulation and membrane fasteners | Firestone Building Products |

EVIDENCE SUBMITTED:

| <u>Test Agency</u> | <u>Test Identifier</u> | <u>Description</u> | <u>Date</u> | |
|-------------------------|----------------------------------|----------------------------------|-----------------------------|----------|
| Factory Mutual Research | 3009797 | Wind Uplift, TAS 114 (FMRC 4470) | 02/04/02 | |
| | 3007119 | Wind Uplift, TAS 114 (FMRC 4470) | 01/02/02 | |
| | 3005794 | Wind Uplift, TAS 114 (FMRC 4470) | 12/13/01 | |
| | 3002357 | Wind Uplift, TAS 114 (FMRC 4470) | 05/16/00 | |
| | 3005415 | Wind Uplift, TAS 114 (FMRC 4470) | 02/08/00 | |
| | 3002775 | Wind Uplift, TAS 114 (FMRC 4470) | 09/16/99 | |
| | 3000919 | Wind Uplift, TAS 114 (FMRC 4470) | 04/07/99 | |
| | 3003690 | Wind Uplift, TAS 114 (FMRC 4470) | 03/29/99 | |
| | 3B9A2.AM | Wind Uplift, TAS 114 (FMRC 4470) | 01/25/99 | |
| | 4B1A9.AM | Wind Uplift, TAS 114 (FMRC 4470) | 09/09/98 | |
| | 1D9A7.AM | Wind Uplift, TAS 114 (FMRC 4470) | 07/31/98 | |
| | 1D9A0.AM | Wind Uplift, TAS 114 (FMRC 4470) | 07/30/98 | |
| | 1D0A3.AM | Wind Uplift, TAS 114 (FMRC 4470) | 09/24/97 | |
| | 1B0A9.AM | Wind Uplift, TAS 114 (FMRC 4470) | 05/09/97 | |
| | 3015927 | FM 4470 | 01/26/04 | |
| | 3023988 | FM 4470 | 09/29/05 | |
| | 3025484 | FM 4470 | 05/31/06 | |
| | 3027476 | FM 4470 | 08/11/06 | |
| | Exterior Research & Design, LLC. | 8054.02.02-1 | Physical Properties TAS 131 | 02/22/02 |
| | Underwriters Laboratories, Inc. | 8064.11.06 | FM 4470/TAS 114 | 11/20/06 |
| 01NK14490 | | Fire Classification | 06/01/01 | |
| 96NK22037 | | TAS 114, (UL 790) | 03/10/97 | |
| 01NK25823 | | Wind Uplift, TAS 114, (UL 1897) | 07/02/01 | |



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APPROVED ASSEMBLIES:

- Membrane Type:** Single Ply, Thermoplastic, TPO
- Deck Type 1I:** Wood, Insulated
- Deck Description** Min. 19/32" Plywood or Wood Plank, mechanically attached to supports spaced maximum 24" o.c. with #8 wood screws spaced maximum 6" o.c.
- System Type D:** Membrane attached over preliminary fastened insulation

All General and System Limitations apply.

| <u>Insulation for Base or Top Layer</u> | <u>Fastener Density ft²</u> | <u>Fastener Type</u> |
|--|--|----------------------|
| Any approved Polyisocyanurate Minimum: 2" thick | N/A | N/A |

Note: All insulation shall have preliminary attachment prior to installation of the roofing membrane at a minimum application of two fasteners per board for insulation boards having no dimension greater than 4 ft, and four fasteners for any insulation having no dimension greater than 8 ft.

Membrane: UltraPly TPO (MD) mechanically attached to deck with Firestone HD Seam Plates and Firestone AP Fasteners or OMG 2-3/8" Eyehook Seam plates and #14 Roofgrip fasteners spaced maximum 6" o.c. within minimum 6" wide side laps spaced maximum 69" o.c. Laps are sealed with a minimum 1.5" wide heat weld on outside edge of lap.

Maximum Design Pressure: -45 psf; (See General Limitation #7)



WOOD DECK SYSTEM LIMITATIONS:

1. A slip sheet is required with Ply 4 and Ply 6 when used as a mechanically fastened base or anchor sheet.

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. 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



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