



**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)

**CertainTeed Corporation (PA)
1400 Union Meeting Road, P.O. Box 1100
Blue Bell, PA 19422**

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 the BCCO and accepted by the Building Code and Product Review Committee 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 BCCO (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. BCCO reserves the right to revoke this acceptance, if it is determined by BCCO 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 High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: CertainTeed Conventional Built-Up-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 12.
The submitted documentation was reviewed by Frank Zuloaga, RRC



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ROOFING ASSEMBLY APPROVAL

Category: Roofing
Sub-Category: Built-Up Roofing
Material: Fiberglass
Deck Type: Steel
Maximum Design Pressure -52.5 psf
Fire Classification: See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

| Product | Dimensions | Test Specification | Product Description |
|--|---|--|--|
| All Weather/Empire Base Sheet | 36" x 72'; Roll weight: 86 lbs. (2 squares) | ASTM D 2626 UL Type 15 | Asphalt coated, organic base sheet. |
| Flintglas® Mineral Surfaced Cap Sheet | 36" X 36'; Roll Weight: 78 lbs. (1 square) | ASTM D 3909 | Asphalt impregnated and coated inorganic glass fiber surfaced with mineral granules used as the top ply in conventional built-up roof membranes. |
| Flintglas® Ply Sheet Type IV or VI | 36" x 180'; Roll weight: 40/55 lbs. (5 squares) | ASTM D 2178 Type IV or VI UL Type G1 | Fiberglass, asphalt impregnated ply sheet. |
| Flex-I-Glas or Flex-I-Glas FR Base Sheet | 36" x 108'; Roll weight: 90 lbs. (3 squares) | ASTM D 5147 | SBS Modified, fiberglass reinforced base sheet. |
| GlasBase™ Base Sheet | 36" x 108'; Roll weight: 69 lbs. (3 squares) | ASTM D 4601 UL Type G2 | Asphalt coated, fiberglass base sheet. |
| No. 15 Perforated Felt | 36" x 144', Roll weight: 90 lbs. (4 square) | ASTM D 226 | Organic asphalt saturated felt. |
| Yosemite® Mineral Surfaced Cap Sheet | 36" x 36'; Roll weight: 90 lbs. (1 square) | ASTM D 249 UL Type 30 | Mineral Surfaced organic cap and buffer sheet. |

APPROVED INSULATIONS:

TABLE 2

| Product Name | Product Description | Manufacturer (With Current NOA) |
|---------------------|----------------------------------|--|
| PYROX | Polyisocyanurate foam insulation | Apache Products Co. |



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APPROVED INSULATIONS:

TABLE 2

| Product Name | Product Description | Manufacturer (With Current NOA) |
|--|---|--|
| ACFoam II | Polyisocyanurate foam insulation | Atlas Energy Products |
| ISO 95+ | Polyisocyanurate foam insulation | Firestone Building Products, Inc. |
| High Density Wood Fiberboard | Wood fiber insulation board | generic |
| Perlite Insulation | Perlite insulation board | generic |
| Dens Deck | Water resistant gypsum board | G-P Gypsum Corp. |
| ENRGY-1, ENRGY-2, Plus, UltraGard Gold, PSI-25 | Polyisocyanurate foam insulation | Johns Manville |
| FiberGlass Roof Insulation | Glass fiber/Mineral fiber insulation | Johns Manville |
| Fesco Board | Expanded mineral fiber insulation | Johns Manville |
| ISORoc | Polyisocyanurate foam / rockwool composite insulation | Johns Manville |
| Paroc Cap Board | Rockwool insulation | Partek, Inc. |
| Multi-Max, FA | Polyisocyanurate foam insulation | Rmax, Inc. |

APPROVED FASTENERS:

TABLE 3

| Fastener Number | Product Name | Product Description | Dimensions | Manufacturer (With Current NOA) |
|------------------------|----------------------------|---|-----------------------|--|
| 1. | #12 & #14 Dekfast Fastener | Insulation fastener | | Construction Fasteners, Inc. |
| 2. | Dekfast Hex Plate | Galvalume AZ50 steel plate | 2 7/8" x 3 1/4" | Construction Fasteners, Inc. |
| 3. | Dekfast Lock Plate | Polypropylenel plate | 3" x 3 1/4" | Construction Fasteners, Inc. |
| 4. | #12 Roofgrip Fasteners | Insulation fastener for wood and steel. | | ITW Buildex Corp. |
| 5. | AccuTrac Hextra Fasteners | Insulation fastener for wood and steel | | ITW Buildex Corp. |
| 6. | Metal Plate | Galvalume stress plate. | 3" round 3" square | ITW Buildex Corp. |
| 7. | Gearlok Plastic Plate | Polypropylene round plate | 3.2" | ITW Buildex Corp. |
| 8. | UltraFast | Insulation fastener for wood and steel. | | Johns Manville |



APPROVED FASTENERS:

TABLE 3

| Fastener Number | Product Name | Product Description | Dimensions | Manufacturer (With Current NOA) |
|------------------------|----------------------------|--|----------------------|--|
| 9. | UltraFast ASAP | Pre-assembled Insulation fastener and plate | | Johns Manville |
| 10. | UltraFast Metal Plate | Galvalume AZ55 steel plate | 3" square & 3" round | Johns Manville |
| 11. | UltraFast Plastic Plate | High Density Polyolefin round plate | 3" round | Johns Manville |
| 12. | Olympic Fastener #12 & #14 | Insulation fastener | | Olympic Mfg. Group, Inc. |
| 13. | Olympic Standard | Galvalume AZ50 steel plate | 3" round | Olympic Mfg. Group, Inc. |
| 14. | Olympic G-2 | Galvalume AZ55 steel plate | 3.5" round | Olympic Mfg. Group, Inc. |
| 15. | Olympic Plastic Plate | Polypropylene plastic plate | 3" round | Olympic Mfg. Group, Inc. |
| 16. | Rawl #12 & #14 | Insulation fastener | | Powers Fasteners, Inc. |
| 17. | Rawl Plate | Galvalume AZ55 steel plate | 3" round | Powers Fasteners, Inc. |
| 18. | Insul-Fixx Fastener | Insulation fastener for steel and wood decks | | SFS Stadler, Inc. |
| 19. | Insul-Fixx S Plate | Galvalume AZ50 steel plate | 3" round | SFS Stadler, Inc. |
| 20. | Tru-Fast Fasteners | Insulation fastener for wood and steel decks | | The Tru-Fast Corp. |
| 21. | Tru-Fast MP-3 | Galvalume AZ50 steel plate | 3" round | The Tru-Fast Corp. |
| 22. | Tru-Fast Plates | Galvalume AZ55 steel plate | 3" round | The Tru-Fast Corp. |
| 23. | Tru-Fast Plates | Polyethylene plastic plate | 3" round | The Tru-Fast Corp. |

EVIDENCE SUBMITTED:

| <u>Test Agency/Identifier</u> | <u>Name</u> | <u>Report</u> | <u>Date</u> |
|--------------------------------------|-----------------------------------|----------------------|--------------------|
| Applied Research Laboratories | Physical Properties | 28013 | 06/02/87 |
| Factory Mutual Research Corp. | Insulation Fastening Requirements | FMRC 1996 | 01/01/96 |
| | FMRC 4470 | J.I. #3Y8A1.AM | 03/23/96 |
| Underwriters Laboratories, Inc. | Fire Classification | R11656 | 07/13/87 |
| United States Testing Company, Inc. | ASTM D 5147 | 97457-4 | 06/03/88 |
| | ASTM D 5147 | 97-457-2R | 12/02/87 |



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APPROVED ASSEMBLIES:

Deck Type 2I: Steel, Insulated, New Construction

Deck Description: 18-22 ga. steel

System Type B: Base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations.

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Pyrox, UltraGard Gold Minimum 1.3" thick | 1, 4, 5, 8, 12, 18 or 20 | 1:2.67 ft² |
| AC-Foam II Minimum 1.3" thick | 1, 4, 12, 16 or 18 | 1:4 ft² |
| ENRGY 2 Minimum 1.4" thick | 1, 4, 5, 12, 16 or 20 | 1:3 ft² |
| ISORoc Minimum 1.4" thick | 1, 4, 5, 12, 16 or 20 | 1:2.67 ft² |
| Iso 95 + Minimum 1.4" thick | 1, 4, 5, 8, 12, 18 or 20 | 1:4 ft² |
| ENRGY 2 Plus Minimum 1.5" thick | 1, 4, 5 or 18 | 1:3 ft² |
| Fiberglas Minimum 1⁵/₁₆" thick | 1, 4, 5, 8, 12, 18 or 20 | 1:2.67 ft² |
| Perlite Minimum 3/4" thick | 1 or 12 | 1:2 ft² |
| High Density Wood Fiberboard Minimum 1/2" thick | 1, 4, 12 or 20 | 1:2 ft² |

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| Any of the insulations listed for Base Layer, above. | | |
| Paroc Minimum 3/4" thick | N/A | N/A |

Dens-Deck



Minimum ¼” thick

N/A

N/A

Note: Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: (Optional) Install one ply of All Weather/Empire, Flex-I-Glas or GlasBase base sheet directly over the top layer of insulation. Adhere with any approved mopping asphalt at an application rate of 20-35 lbs./sq.

Ply Sheet: Two or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or #15 Asphalt Perforated Felt ply sheet adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.

Cap Sheet: (Optional) One ply of FlintGlas Mineral Surface cap sheet adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.

Surfacing: (Required if no cap sheet is used) Install one of the following:

1. Flood coat of hot asphalt with an application rate of 60 lbs./sq. ± 20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively.
2. A two part coating consisting of a base coat of Static Asphalt Fibered Emulsion at rate of 3 gal./sq. or Monoform compound; surfaced with 1 gal./sq. Sta-Kool non-fibered aluminum coating or fibered APOC No. 212.

Maximum Design Pressure: -52.5 psf (See General Limitation #9)



Deck Type 2I: Steel, Insulated, New Construction

Deck Description: 18-22 ga. steel

System Type C: All layers of insulation simultaneously fastened.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| AC-Foam II, ENRGY 2, ENRGY 2 Plus, ISORoc, Multi-Max Minimum 1" thick | N/A | N/A |
| Fiberglas Minimum 1⁵/₁₆" thick | N/A | N/A |
| Perlite, Paroc Minimum 3/4" thick | N/A | N/A |
| High Density Wood Fiberboard Minimum 1/2" thick | N/A | N/A |

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density.

| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| AC-Foam II Minimum 1.3" thick | 1, 4 or 12 | 1:3 ft ² |
| ENRGY 2 Minimum 1.4" thick | 1, 4, 12 or 20 | 1:3 ft ² |
| ISORoc Minimum 1.5" thick | 1, 4, 12 or 20 | 1:2.67 ft ² |
| ENRGY 2 Plus Minimum 1.5" thick | 1, 12, 18 or 20 | 1:4 ft ² |
| Multi-Max Minimum 1.5" thick | 1, 4, 5, 12, 18 or 20 | 1:2.9 ft ² |
| Fiberglas Minimum 1⁵/₁₆" thick | 1, 4, 5, 8, 12, 16 or 20 | 1:2.67 ft ² |
| Perlite Minimum 3/4" thick | 1, 4, 12, 16 or 20 | 1:2 ft ² |
| High Density Wood Fiberboard Minimum 1/2" thick | 1, 4, 12 or 20 | 1:2 ft ² |

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The 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.



- Base Sheet: (Optional) Install one ply of All Weather/Empire, Flex-I-Glas, Flex-I-Glas FR or GlasBase base sheet directly over the top layer of insulation. Adhere with any approved mopping asphalt at an application rate of 20-35 lbs./sq.
- Ply Sheet: Two or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or #15 Asphalt Perforated Felt ply sheet adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.
- Cap Sheet: (Optional) One ply of FlintGlas Mineral Surface cap sheet adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.
- Surfacing: (Required if no cap sheet is used) Install one of the following:
1. Flood coat of hot asphalt with an application rate of 60 lbs./sq. \pm 20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively.
 2. A two part coating consisting of a base coat of Static Asphalt Fibered Emulsion at rate of 3 gal./sq. or Monoform compound; surfaced with 1 gal./sq. Sta-Kool non-fibered aluminum coating or fibered APOC No. 212.
- Maximum Design Pressure: -52.5 (See General Limitation #9)



Deck Type 2I: Steel, Insulated, New Construction

Deck Description: 18-22 ga. steel

System Type D: All layers of insulation and base sheet simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| Pyrox Minimum 1.3" thick | N/A | N/A |
| ACFoam-II, UltraGard Gold, UltraGard Premier, Isotherm R, ENRGY-2, PSI-25 Minimum 1.5" thick | N/A | N/A |
| Fiberglas Minimum ¹⁵ / ₁₆ " thick | N/A | N/A |
| Perlite Minimum 3/4" thick | N/A | N/A |
| High Density Wood Fiberboard Minimum 1/2" thick | N/A | N/A |
| Dens-Deck Minimum 1/4" thick | N/A | N/A |
| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| Perlite Minimum 3/4" thick | N/A | N/A |
| High Density Wood Fiberboard Minimum 1/2" thick | N/A | N/A |
| Dens-Deck Minimum 1/4" 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 two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Base Sheet: One ply of All Weather/Empire, Flex-I-Glas, Flex-I-Glas FR or GlasBase mechanically attached as detailed below.

Fastening #1: Olympic #12 or #14 Screws and metal plates, Dekfast #12, #14 or #15, or Insulfixx #12 or #14 and metal plates at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet, 24" o.c.

Fastening #2: Olympic #12 or #14 Screws and metal plates, Dekfast #12, #14 or #15, or Insulfixx #12 or #14 and metal plates at a 4" side lap 12" o.c. and one row in the center of the sheet, 18" o.c.



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- Ply Sheet: Two or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or #15 Asphalt Perforated Felt ply sheet adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.
- Cap Sheet: (Optional) One ply of FlintGlas Mineral Surface cap sheet adhered in a full mopping of approved asphalt at an application rate of 20-35 lbs./sq.
- Surfacing: (Required if no cap sheet is used) Install one of the following:
1. Flood coat of hot asphalt with an application rate of 60 lbs./sq. \pm 20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively.
 2. A two part coating consisting of a base coat of Static Asphalt Fibered Emulsion at rate of 3 gal./sq. or Monoform compound; surfaced with 1 gal./sq. Sta-Kool non-fibered aluminum coating or fibered APOC No. 212.
- Maximum Design Pressure: -45psf. (See General Limitation #9)



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 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, 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 sidelap 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 with 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.)**

END OF THIS ACCEPTANCE



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