



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

**NOTICE OF ACCEPTANCE (NOA)**

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION

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[www.miamidade.gov/economy](http://www.miamidade.gov/economy)

**DURO-LAST Roofing, Inc.**  
525 Morley Drive  
Saginaw, MI 48601

**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: DURO-LAST Single Ply PVC 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 renews and revises NOA No. 13-1106.03 and consists of pages 1 through 29.  
The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 17-0202.04  
Expiration Date: 08/22/22  
Approval Date: 08/17/17  
Page 1 of 29

## ROOFING SYSTEM APPROVAL

Category: Roofing  
Sub-Category: Single Ply  
Material: PVC  
Deck Type: Wood  
Maximum Design Pressure: -97.5 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>   |
|------------------------------------|---|---------------------------|--|
| Duro-Last Membrane                 | .037" thick,<br>Various widths x<br>150 ft. rolls   | ASTM D4434                | PVC polymer blend polyester reinforced roofing membrane.                         |
| Duro-Last Membrane                 | .045" thick,<br>Various widths x<br>100 ft. rolls   | ASTM D4434                | PVC polymer blend polyester reinforced roofing membrane.                         |
| Duro-Last Membrane                 | .057" thick,<br>Various widths x<br>100 ft. rolls   | ASTM D4434                | PVC polymer blend polyester reinforced roofing membrane.                         |
| Duro-Last Designer Series Membrane | .045" thick<br>Various widths &<br>lengths          | ASTM D4434                | PVC polymer blend polyester reinforced roofing membrane: Rock-Ply & Shingle-Ply. |
| Duro-Fleece Membrane               | .047" thick<br>Various widths x<br>100 ft. rolls    | ASTM D4434                | PVC polymer blend polyester reinforced fleece backed roofing membrane.           |
| Duro-Fleece Membrane               | .056" thick<br>Various widths x<br>100 ft. rolls    | ASTM D4434                | PVC polymer blend polyester reinforced fleece backed roofing membrane.           |
| Duro-Fleece Membrane               | .080" thick,<br>Various widths x<br>65 ft. rolls    | ASTM D4434                | PVC polymer blend polyester reinforced fleece backed roofing membrane.           |
| Duro-Fleece Plus Membrane          | .047" thick, .<br>Various widths x<br>100 ft. rolls | ASTM D4434                | PVC polymer blend polyester reinforced fleece backed roofing membrane.           |
| Duro-Fleece Plus Membrane          | .056" thick,<br>Various widths x<br>80 ft. rolls    | ASTM D4434                | PVC polymer blend polyester reinforced fleece backed roofing membrane.           |
| Duro-Tuff Membrane                 | .045" thick<br>Various widths x<br>100 ft rolls     | ASTM D4434                | PVC polymer blend polyester reinforced fleece backed roofing membrane.           |
| Duro-Tuff Membrane                 | .057" thick<br>Various widths x<br>100 ft rolls     | ASTM D4434                | PVC polymer blend polyester reinforced roofing membrane                          |
| Duro-Tuff Membrane                 | .080" thick<br>Various widths x<br>65 ft rolls      | ASTM D4434                | PVC polymer blend polyester reinforced roofing membrane                          |



| <u>Product</u>                             | <u>Dimensions</u>                                | <u>Test Specification</u> | <u>Product Description</u>   |
|--|--|---------------------------|--|
| Duro-Last EV                               | 53 mil thick<br>Various widths x<br>100 ft rolls | ASTM D4434                | PVC polymer blend polyester reinforced roofing membrane with KEE films.  |
| Duro-Last EV                               | 60 mil thick<br>Various widths x<br>100 ft rolls | ASTM D4434                | PVC polymer blend polyester reinforced roofing membrane with KEE films.  |
| Duro-Blue Separation Slip Sheet            | 4 mil x 20' x 360';<br>4 mil x 20' x 100'        | N/A                       | Separation slip sheet produced from coextruded polyethylene film   |
| Duro-Last Duro-Weave Separation Slip Sheet | 2.5 mil x 12' x<br>328'                          | N/A                       | Separation slip sheet produced from high density polyethylene tapes and coated on one side with low density polyethylene   |
| Duro-Fleece CR-20 Adhesive                 | Kit covers<br>2,000 ft <sup>2</sup>              | Proprietary               | Dual component, low-rise polyurethane foam adhesive  |
| Duro-Last WB II Adhesive                   | 5 gal. pail                                      | Proprietary               | Polymeric waterborne membrane adhesive.  |
| Duro-Last SB IV                            | 5 gal. pail                                      | Proprietary               | Low VOC solvent-based membrane adhesive.   |
| Duro-Last Fascia Bar                       | 1 3/4" x 10';<br>4" x 10'                        | N/A                       | Extruded vinyl drip edge with holes punched 8" o.c.  |
| Duro-Last Fascia Bar Cover                 | 1 3/4" x 10';<br>4" x 10'                        | N/A                       | Extruded decorative cover for Duro-Last Fascia Bar   |
| Duro-Last Fascia                           | 2" & 4"  | TAS 111                   | Kynar finish Galvalume, 24 ga., cover  |
| Duro-Last Snap Coping                      | 12"  | TAS 111                   | Kynar finish Galvalume, 24 ga., coping   |
| Duro-Last 2-Piece Metal "T-Edge"           | N/A  | TAS 111                   | Kynar finish Galvalume, 24 ga., with vinyl skirt   |
| Duro-Last 2-Piece Compression Edge         | N/A  | TAS 111                   | Kynar finish Galvalume, 24 ga.   |
| Duro-Last Drip Edge                        | 2" face x 10';<br>4" face x 10';                 | N/A                       | Extruded vinyl drip edge with holes punched 8" o.c.  |
| Duro-Last Two-Way Roof Vents               | N/A  | N/A                       | Injection molded two-way roof vents with a Duro-Last membrane skirt.   |
| Duro-Last Gravel Stop                      | 2" face x 10';<br>4" face x 10';                 | N/A                       | Extruded vinyl gravel stop with holes punched 8" o.c.  |
| Roof-Trak III Walk Pads                    | 30" x 60"<br>.125" thick                         | N/A                       | Extruded vinyl walk way pads manufactured from Duro-Last membrane.   |
| Duro-Last Tab Sealer 4725                  | N/A  | N/A                       | Solvent-based contact-bonding agent.   |
| Duro-Last Accessories                      | Various  | ASTM D4434                | Custom fabricated accessories for parapets and penetrations: Curb flashing, Inside & Outside Corner, Scuppers, Drain Boot, Parapet Flashing, Stack Flashing; all for use in the Duro-Last roofing systems. |



**APPROVED INSULATIONS:**

**TABLE 2**

| <b>Product Name</b>                                | <b>Product Description</b>   | <b>Manufacturer<br/>(With Current NOA)</b>                   |
|--|--|--|
| ACFoam II, ACFoam III                              | Polyisocyanurate foam insulation   | Atlas Roofing Corporation                                    |
| Cellofoam Type IX EPS Insulation                   | Expanded Polystyrene Type IX   | Cellofoam North America Inc.                                 |
| DensDeck, DensDeck Prime                           | Silicon treated gypsum   | Georgia-Pacific Gypsum LLC                                   |
| H-Shield   | Polyisocyanurate foam insulation   | Hunter Panels, LLC   |
| ENRGY3   | Polyisocyanurate foam insulation   | Johns Manville   |
| Duro-Fold Underlayment Board                       | Extruded polystyrene with polypropylene facer  | Duro-Last Roofing, Inc.                                      |
| Duro-Guard Iso II-A,<br>Duro-Guard Iso III-A       | Polyisocyanurate foam insulation   | Duro-Last Roofing, Inc.                                      |
| Duro-Guard Iso II-H                                | Polyisocyanurate foam insulation   | Duro-Last Roofing, Inc.                                      |
| Duro-Guard ISO II-G<br>Duro-Guard ISO II-G Tapered | Polyisocyanurate insulation with fiberglass reinforced organic facers  | Duro-Last Roofing, Inc.                                      |
| Duro-Guard ISO HD-G                                | High density Polyisocyanurate insulation with coated fiberglass facers   | Duro-Last Roofing, Inc.                                      |
| Duro-Guard EPS                                     | Expanded polystyrene   | Duro-Last Roofing, Inc.                                      |
| Duro-Guard EPS FGF                                 | Expanded polystyrene with fiberglass facers  | Duro-Last Roofing, Inc.                                      |
| Duro-Guard XPS Fan Fold                            | Rigid extruded polystyrene (XPS) core and wrapped with tough facers which create a durable water-resistant board | Duro-Last Roofing, Inc.                                      |
| R-Tech Fan Fold                                    | Type IX Expanded polystyrene with polymeric facers   | Insulfoam a division of Carlisle Construction Materials Inc. |
| Insulfoam EPS                                      | Type IX expanded polystyrene board   | Insulfoam a division of Carlisle Construction Materials Inc. |
| Kingspan® Greengard® Insulation Board CM           | Type IV and VI expanded polystyrene board  | Kingspan Insulation, LLC                                     |
| SECUROCK Gypsum-Fiber Roof Board                   | Fiber reinforced insulation board  | USG Corporation  |
| DEXcell Cement Roof Board                          | Insulation with cementitious core and fiberglass mesh facers   | National Gypsum Company                                      |
| DEXcell FA Glass Mat Roof Board                    | Insulation with gypsum core and heavy duty coated glass mat facers   | National Gypsum Company                                      |



**APPROVED FASTENERS:****TABLE 3**

| <b>Fastener Number</b> | <b>Product Name</b>                                 | <b>Product Description</b>   | <b>Dimensions</b> | <b>Manufacturer (With Current NOA)</b> |
|------------------------|---|--|-------------------|--|
| 1.                     | Duro-Last Duro-Coated Hex Head Screws               | Roofing and insulation fasteners, Duro-Coated with #3 Phillips head. | Various Lengths   | Duro-Last Roofing, Inc.                |
| 2.                     | Duro-Last 3" Metal Plates                           | Galvalume steel stress plates.                                       | 3" square         | Duro-Last Roofing, Inc.                |
| 3.                     | Duro-Last Insulation Plates                         | Round plastic stress plates.   | 3" round          | Duro-Last Roofing, Inc.                |
| 4.                     | Duro-Last Poly-Plates                               | Round plastic stress plates.   | 2" round          | Duro-Last Roofing, Inc.                |
| 5.                     | Duro-Last #15 Extra Heavy Duty Drill Point Fastener | Corrosion resistant, drill point with a #3 Phillips truss head       | Various Lengths   | Duro-Last Roofing, Inc.                |
| 6.                     | Duro-Last Cleat Plates                              | 0.038" thick galvalume stress plates.                                | 2.4"              | Duro-Last Roofing, Inc.                |
| 7.                     | OMG Eyehook Accuseam Plate                          | Stress Plate   | 2-3/8"            | OMG, Inc.                              |
| 8.                     | Duro-Last #14 HD Fastener                           | Roofing and insulation fasteners                                     | Various Lengths   | Duro-Last Roofing, Inc.                |
| 9.                     | Duro-Bond Plate 1302                                | Round, coated galvalume plate (Gold and Black)                       | 3" round          | Duro-Last Roofing, Inc.                |

**EVIDENCE SUBMITTED:**

| <u>Test Agency/Identifier</u>                  | <u>Name</u>       | <u>Report</u>                 | <u>Date</u> |
|--|-------------------|-------------------------------|-------------|
| Factory Mutual<br>Research Corporation         | 2M4A8 .AM         | Class 4470                    | 03-05-87    |
|  | 3Y5A6.AM          | Class 4470                    | 03-10-95    |
|  | 4D6A4.AM          | Class 4470                    | 08-90-99    |
|  | 3005604           | Class 4470                    | 03-13-00    |
|  | 3026508           | Class 4470                    | 05-03-07    |
| IRT-ARCON, Inc.                                | 02-025            | TAS 114                       | 07-24-02    |
| PRI Construction Materials<br>Technologies LLC | DLRI-013-02-01    | TAS 114-J                     | 08-28-12    |
|  | DLRI-014-02-01    | TAS 114-J                     | 08-28-12    |
|  | DLRI-042-02-01    | TAS 114-J                     | 08-24-13    |
|  | DLRI-053-02-01    | ASTM D4434                    | 06-26-14    |
|  | DLRI-080-02-01    | ASTM D4434                    | 08-03-16    |
|  | NGC-034-02-01     | TAS 114-J                     | 03-25-16    |
|  | NGC-035-02-01     | TAS 114-J                     | 05-19-16    |
|  | DLRI-113-02-01    | TAS 114-J                     | 04-05-17    |
|  | DLRI-120-02-01    | TAS 114-J                     | 07-14-17    |
|  | DLRI-021-02-01.12 | ASTM D1761/D1876<br>TAS 117-B | 06-27-17    |
| Exterior Research & Design, LLC                | 02733.01.05-1     | TAS 114                       | 01-21-05    |
|  | 02744.05.06       | TAS 114                       | 05-17-06    |
|  | 02732.09.04       | ASTM D4434                    | 09-28-04    |
| Trinity ERD                                    | 02750.02.08-R2    | ASTM D4434                    | 08-03-12    |
|  | D42370.07.12      | ASTM D1084/TAS 117            | 07-11-12    |
|  | D35210.08.11-R1   | ASTM D4434                    | 09-17-12    |
|  | D42320.08.12      | TAS 117/TAS 114               | 01-08-13    |
|  | D40280.03.13      | ASTM D4434                    | 03-13-13    |
|  | D40260.03.13.1    | ASTM D4434                    | 03-29-13    |
|  | D44450.05.13-2    | ASTM D4434                    | 05-10-13    |
|  | D35210.08.11.R3   | ASTM D4434                    | 03-25-13    |
| Intertek Testing Services, NA Inc.             | 3119586-001       | TAS 111                       | 07-10-07    |
| Architectural Testing, Inc.                    | C0713.01-109-18   | TAS 114(J)                    | 03-05-13    |



**APPROVED ASSEMBLIES**

- Membrane Type:** Single Ply, PVC
- Deck Type II:** Wood Insulated
- Deck Description:** <sup>19</sup>/<sub>32</sub>" plywood or wood plank secured with 0.113-inch x 2<sup>3</sup>/<sub>8</sub>" ring shank nails spaced 6" o.c. at supports with a maximum 24" o.c. spacing.
- System Type A(1):** . Insulation adhered with approved adhesive, membrane fully adhered.

**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.**

| Insulation Layer  | Insulation Fasteners<br>(Table 3) | Fastener<br>Density/ft |
|---|-----------------------------------|------------------------|
| <b>DEXcell FA Glass Mat Roof Board<br/>Minimum 1/4" thick</b> | N/A                               | N/A                    |

**Note: Insulation layer shall be adhered with Duro-Grip CR-20 Adhesive in a splatter pattern at a rate of 6.6 lbs/sq. See Roofing Application Standard RAS 117 for fastening details.**

Membrane: One ply of Duro-Fleece membrane or Duro-Fleece Plus membrane fully adhered with Duro-Last WB II Adhesive applied at a minimum rate of 100 ft<sup>2</sup>/gal to substrate only. 3" wide laps are sealed with a minimum 1.5" wide heat weld.  
 Or  
 One ply of Duro-Last membrane, Duro-Tuff membrane or Duro-Last EV membrane fully adhered with Duro-Last WB II Adhesive applied at a minimum rate of 140 ft<sup>2</sup>/gal to substrate only. 3" wide laps are sealed with a minimum of 1.5" wide heat weld.  
 Or  
 One ply of Duro-Last membrane, Duro-Last Duro-Tuff or Duro-Last EV Membrane fully adhere with Duro-Last SB IV Adhesive applied at a minimum rate of 60 ft<sup>2</sup>/gal (apply 120 ft<sup>2</sup>/gal to both the membrane and substrate). 3" wide laps are sealed with a minimum of 1.5" wide heat weld.  
Or  
 One ply of Duro-Fleece membrane or Duro-Fleece Plus membrane fully adhered with Duro-Fleece CR-20 Membrane Adhesive applied in a splatter pattern applied at a rate of 8 lbs/100 ft<sup>2</sup>. Laps are sealed with a minimum of 1.5" wide heat weld.

Maximum Design Pressure: -97.5 psf. (See General Limitation #7)



**Membrane Type:** Single Ply, PVC  
**Deck Type II:** Wood Insulated  
**Deck Description:** 1<sup>5</sup>/<sub>32</sub>" or greater plywood or wood plank secured with 0.113-inch x 2<sup>3</sup>/<sub>8</sub>" ring shank nails spaced 6" o.c. at supports with a maximum 24" o.c. spacing.  
**System Type A(2):** Insulation adhered with approved adhesive, membrane fully adhered.

**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.**

| <b>Insulation Layer</b>                                     | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft</b> |
|---|---|--------------------------------|
| <b>DEXcell FA Cement Roof Board<br/>Minimum 7/16" thick</b> | N/A                                       | N/A                            |

**Note: Insulation layer shall be adhered with Duro-Fleece CR-20 Membrane Adhesive in a splatter pattern at a rate of 5 lbs/sq. See Roofing Application Standard RAS 117 for fastening details.**

**Membrane:** One ply of minimum 40 mil Duro-Last membrane, minimum 50 mil Duro-Tuff membrane or Duro-Last EV membrane fully adhered with Duro-Last WB II Adhesive applied at a minimum rate of 150 ft<sup>2</sup>/gal to substrate only. 3" wide laps are sealed with a minimum of 1" wide heat weld.  
 Or  
 One ply of Duro-Last membrane, Duro-Last Duro-Tuff or Duro-Last EV Membrane fully adhere with Duro-Last SB IV Adhesive applied at a minimum rate of 60 ft<sup>2</sup>/gal (apply 120 ft<sup>2</sup>/gal to both the membrane and substrate). 3" wide laps are sealed with a minimum of 1" wide heat weld.  
 Or  
 One ply of Duro-Fleece membrane or Duro-Fleece Plus membrane fully adhered with Duro-Fleece CR-20 Membrane Adhesive applied in a splatter pattern applied at a rate of 8 lbs/100 ft<sup>2</sup>. Laps are sealed with a minimum of 1.5" wide heat weld.

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





**Membrane Type:** Single Ply, PVC  
**Deck Type II:** Wood Insulated  
**Deck Description:** 19/32" plywood or wood plank secured with 0.113-inch x 23/8" ring shank nails spaced 6" o.c. at supports with a maximum 24" o.c. spacing.  
**System Type C(1):** All layers of insulation simultaneously attached; membrane fully adhered.

**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.**

**Fire Barrier:** Atlas Roofing Corporation FR-10 OR FR-50, GAF VersaShield Solo, 1/4"  
**(Optional)** DensDeck, 1/4" SECUROCK loose laid

One or more layers of any of the following insulations.

| <b>Base Layer (Optional)</b>   | <b>Insulation<br/>Fasteners(Table 3)</b>  | <b>Fastener<br/>Density</b>                |
|--|---|--|
| <b>Any Approved EPS or XPS listed in Table 2.<br/>Minimum 1/2" thick</b> | N/A                                       | N/A  |
| <b>Top Insulation Layer</b>  | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
| <b>H-Shield, Duro-Guard Iso II-H<br/>Minimum 1.5" thick</b>              | <b>8 with 9</b>                           | <b>See Below</b>                           |

**Note: Insulation 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.**

**Membrane:** Insulation Layer shall be through fastened to the wood supports with the fastener and plate listed above. The Duro-Last membrane (.057" min), Duro-Tuff membrane (.080" min) or the Duro-Last EV membrane (.060" min) shall be welded to the Duro-Bond Plate 1302 in the manner and the spacing specified below.

**Fastening:** Insulation shall be mechanically attached at 6" o.c., in rows spaced a maximum of 48" o.c. The Duro-Last membrane, Duro-Tuff membrane or Duro-Last EV membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a minimum 1" wide heat weld.

**Maximum Design Pressure:** -52.5 psf. (See General Limitation #7)



**Membrane Type:** Single Ply, PVC  
**Deck Type II:** Wood Insulated  
**Deck Description:** 19/32" plywood or wood plank secured with 0.113-inch x 23/8" ring shank nails spaced 6" o.c. at supports with a maximum 24" o.c. spacing.  
**System Type C(2):** All layers of insulation simultaneously attached; membrane fully adhered.

**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.**

**Fire Barrier:** Atlas Roofing Corporation FR-10 OR FR-50, GAF VersaShield Solo, 1/4"  
**(Optional)** DensDeck, 1/4" SECUROCK loose laid

One or more layers of any of the following insulations.

| <b>Base layer (Optional)</b>   | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
|--|---|--|
| <b>Any Approved EPS or XPS listed in Table 2.<br/>Minimum 1/2" thick</b> | N/A                                       | N/A  |
| <b>Top Insulation Layer</b>  | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
| <b>H-Shield, Duro-Guard Iso II-H<br/>Minimum 1.5" thick</b>              | <b>8 with 9</b>                           | <b>1:2.67</b>                              |

**Note: Insulation 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.**

**Membrane:** Insulation Layer shall be through fastened to the wood supports with the fastener and plate and density listed above. The Duro-Last membrane, Duro-Last EV membrane or the Duro-Tuff membrane shall be welded to the Duro-Bond Plates as specified below.

**Fastening:** The Duro-Last membrane, Duro-Last EV membrane or Duro-Tuff membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a minimum 1" wide heat weld.

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



**Membrane Type:** Single Ply, PVC  
**Deck Type II:** Wood Insulated  
**Deck Description:** 1<sup>9</sup>/<sub>32</sub>" plywood or wood plank secured with 0.113-inch x 2<sup>3</sup>/<sub>8</sub>" ring shank nails spaced 6" o.c. at supports with a maximum 24" o.c. spacing.  
**System Type C(3):** All layers of insulation simultaneously attached; membrane fully adhered.

**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.**

**Fire Barrier:** Atlas Roofing Corporation FR-10 or FR-50, GAF VersaShield Solo, 1/4"  
**(Optional)** DensDeck, 1/4" SECUROCK loose laid

One or more layers of any of the following insulations.

| <b>Base Layer (Optional)</b>   | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
|--|---|--|
| <b>Any Approved EPS or XPS listed in Table 2.<br/>Minimum 1/2" thick</b> | N/A                                       | N/A  |
| <b>Top Insulation Layer</b>  | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
| <b>H-Shield, Duro-Guard Iso II-H<br/>Minimum 1.5" thick</b>              | <b>8 with 9</b>                           | <b>See Below</b>                           |

**Note: Insulation 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.**

**Membrane:** Insulation Layer shall be through fastened to the wood supports with the fastener and plate listed above. The Duro-Last membrane (.057" min), Duro-Tuff membrane (.080" min) or the Duro-Last EV membrane (.060" min) shall be welded to the Duro-Bond Plates in the manner and the spacing specified below.

**Fastening:** Insulation shall be mechanically attached at 6" o.c., in rows spaced a maximum of 96" o.c. The Duro-Last membrane, Duro-Last EV membrane or Duro-Tuff membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a minimum 1" wide heat weld.

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



**Membrane Type:** Single Ply, PVC  
**Deck Type II:** Wood Insulated  
**Deck Description:** 1<sup>9</sup>/<sub>32</sub>" plywood or wood plank secured with 0.113-inch x 2<sup>3</sup>/<sub>8</sub>" ring shank nails spaced 6" o.c. at supports with a maximum 24" o.c. spacing.  
**System Type C(4):** All layers of insulation simultaneously attached; membrane fully adhered.

**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.**

**Fire Barrier:** Atlas Roofing Corporation FR-10 or FR-50, GAF VersaShield Solo, 1/4"  
**(Optional)** DensDeck, 1/4" SECUROCK loose laid

One or more layers of any of the following insulations.

| <b>Base layer (Optional)</b>   | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft</b>             |
|--|---|--|
| <b>Any Approved EPS or XPS listed in Table 2.<br/>Minimum 1/2" thick</b> | N/A                                       | N/A  |
| <b>Top Insulation Layer</b>  | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
| <b>H-Shield, Duro-Guard Iso II-H<br/>Minimum 1.5" thick</b>              | <b>8 with 9</b>                           | <b>See Below</b>                           |

**Note: Insulation 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.**

**Membrane:** Insulation Layer shall be through fastened to the wood supports with the fastener and plate listed above. The Duro-Last membrane (.057" min) , Duro-Tuff membrane (.080" min) or the Duro-Last EV membrane (.060" min) shall be welded to the Duro-Bond Plates in the manner and the spacing specified below.

**Fastening:** Insulation shall be mechanically attached at 6" o.c., in rows spaced a maximum of 72" o.c. The Duro-Last membrane, Duro-Last EV membrane or Duro-Tuff membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a minimum 1" wide heat weld.

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



**Membrane Type:** Single Ply, PVC  
**Deck Type II:** Wood, Insulated  
**Deck Description:** 19/32" plywood or wood plank secured with 0.113-inch x 2 3/8" ring shank nails spaced 6" o.c. at supports with a maximum 24" o.c. spacing.  
**System Type C(5):** All layers of insulation simultaneously attached; membrane fully adhered.

**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.**

**Fire Barrier:** Atlas Roofing Corporation FR-10 or FR-50, GAF VersaShield Solo, 1/4" DensDeck, 1/4" SECUROCK loose laid  
**(Optional)**

One or more layers of any of the following insulations.

| <b>Base Layer (Optional)</b>   | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
|--|---|--|
| <b>Any Approved EPS or XPS listed in Table 2.<br/>Minimum 1/2" thick</b> | N/A                                       | N/A  |
| <b>Top Insulation Layer</b>  | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
| <b>H-Shield, Duro-Guard Iso II-H<br/>Minimum 1.5" thick</b>              | <b>8 with 9</b>                           | <b>1:2 ft<sup>2</sup></b>                  |

**Note: Insulation 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.**

**Membrane:** Insulation Layer shall be through fastened to the wood supports with the fastener and plate and density listed above. The Duro-Last membrane, Duro-Last EV membrane or the Duro-Tuff membrane shall be welded to the Duro-Bond Plates as specified below.

**Fastening:** The Duro-Last membrane, Duro-Last EV membrane or the Duro-Tuff membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a minimum 1" wide heat weld.

**Maximum Design Pressure:** -90 psf. (See General Limitation #7)



**Membrane Type:** Single Ply, PVC  
**Deck Type II:** Wood, Insulated  
**Deck Description:** 1<sup>9</sup>/<sub>32</sub>" or greater plywood or wood plank secured with 0.113-inch x 2<sup>3</sup>/<sub>8</sub>" ring shank nails spaced 6" o.c. at supports with a maximum 24" o.c. spacing.  
**System Type C(6):** All layers of insulation simultaneously attached; membrane fully adhered.

**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.**

**Fire Barrier:** Atlas Roofing Corporation FR-10 or FR-50, GAF VersaShield Solo, 1/4"  
**(Optional)** DensDeck, 1/4" SECUROCK loose laid

One or more layers of any of the following insulations.

| <b>Base Layer (Optional)</b>   | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density</b>                |
|--|---|--|
| <b>Duro-Guard XPS Fan Fold, Duro-Guard ISO II-A, Duro-Guard ISO II-G, Duro-Guard ISO II-H<br/>Minimum 0.5" thick</b> | N/A                                       | N/A  |
| <b>Top Insulation Layer</b>  | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
| <b>DEXcell FA Glass Mat Roof Board<br/>Minimum 0.25" thick</b>   | <b>2 with 5</b>                           | <b>1:1.78</b>                              |
| <b>DEXcell Cement Roof Board<br/>Minimum 7/16" thick</b>   | <b>2 with 5</b>                           | <b>1:1.78</b>                              |

**Note: Insulation 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.**

**Membrane:** Minimum 50 mil Duro-Fleece or Duro-Fleece Plus membrane shall be fully adhered with Duro-Fleece CR-20 Adhesive applied at 3.5 lbs./100-ft<sup>2</sup> in "splatter pattern". Side laps shall be a minimum 3" wide and are sealed with a minimum 1-1/2" wide heat weld.

**Maximum Design Pressure:** -75 psf. (See General Limitation #7)



**Membrane Type:** Single Ply, PVC  
**Deck Type II:** Wood, Insulated  
**Deck Description:** 1<sup>9</sup>/<sub>32</sub>" or greater plywood or wood plank secured with 0.113-inch x 2<sup>3</sup>/<sub>8</sub>" ring shank nails spaced 6" o.c. at supports with a maximum 24" o.c. spacing.  
**System Type C(7):** All layers of insulation simultaneously attached; membrane fully adhered.

**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.**

**Fire Barrier:** Atlas Roofing Corporation FR-10 or FR-50, GAF VersaShield Solo, 1/4"  
**(Optional)** DensDeck, 1/4" SECUROCK loose laid

One or more layers of any of the following insulations.

| <b>Base Layer (Optional)</b>   | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density</b>                |
|--|---|--|
| <b>Duro-Guard XPS Fan Fold, Duro-Guard ISO II-A, Duro-Guard ISO II-G, Duro-Guard ISO II-H<br/>Minimum 0.5" thick</b> | N/A                                       | N/A  |
| <b>Top Insulation Layer</b>  | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
| <b>DEXcell FA Glass Mat Roof Board<br/>Minimum 0.25" thick</b>   | <b>2 with 5</b>                           | <b>1:1.78</b>                              |
| <b>DEXcell Cement Roof Board<br/>Minimum 7/16" thick</b>   | <b>2 with 5</b>                           | <b>1:1.78</b>                              |

**Note: Insulation 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.**

**Membrane:** One ply of Duro-Fleece membrane or Duro-Fleece Plus membrane fully adhered with Duro-Last WB II Adhesive applied at a minimum rate of 100 ft<sup>2</sup>/gal to substrate only. 3" wide laps are sealed with a minimum 1.5" wide heat weld.  
 Or  
 One ply of Duro-Last membrane, Duro-Tuff membrane or Duro-Last EV membrane fully adhered with Duro-Last WB II Adhesive applied at a minimum rate of 140 ft<sup>2</sup>/gal to substrate only. 3" wide laps are sealed with a minimum of 1.5" wide heat weld.  
 Or  
 One ply of Duro-Last membrane, Duro-Last Duro-Tuff or Duro-Last EV Membrane fully adhere with Duro-Last SB IV Adhesive applied at a minimum rate of 60 ft<sup>2</sup>/gal (apply 120 ft<sup>2</sup>/gal to both the membrane and substrate). 3" wide laps are sealed with a minimum of 1.5" wide heat weld.

**Maximum Design Pressure:** -62.5 psf. (See General Limitation #7)



**Membrane Type:** Single Ply, PVC  
**Deck Type II:** Wood, Insulated  
**Deck Description:** 1<sup>9</sup>/<sub>32</sub>" or greater plywood or wood plank secured with 0.113-inch x 2<sup>3</sup>/<sub>8</sub>" ring shank nails spaced 6" o.c. at supports with a maximum 24" o.c. spacing.  
**System Type C(8):** All layers of insulation simultaneously attached; membrane fully adhered.

**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.**

**Fire Barrier:** Atlas Roofing Corporation FR-10 or FR-50, GAF VersaShield Solo, 1/4"  
**(Optional)** DensDeck, 1/4" SECUROCK loose laid

One or more layers of any of the following insulations.

| <b>Base Layer (Optional)</b>   | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density</b>                |
|--|---|--|
| <b>Duro-Guard XPS Fan Fold, Duro-Guard ISO II-A, Duro-Guard ISO II-G, Duro-Guard ISO II-H<br/>Minimum 0.5" thick</b> | N/A                                       | N/A  |
| <b>Top Insulation Layer</b>  | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
| <b>DEXcell FA Glass Mat Roof Board<br/>Minimum 0.25" thick</b>   | <b>2 with 5</b>                           | <b>1:2</b>                                 |
| <b>DEXcell Cement Roof Board<br/>Minimum 7/16" thick</b>   | <b>2 with 5</b>                           | <b>1:2</b>                                 |

**Note: Insulation 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.**

**Membrane:** One ply of Duro-Fleece membrane or Duro-Fleece Plus membrane adhered with Duro-Fleece CR-20 Membrane Adhesive applied in a splatter pattern applied at a Rate of 8 lbs/100 ft<sup>2</sup>. 3" wide laps are sealed with a minimum of 1.5" wide heat weld.

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





**Membrane Type:** Single Ply, PVC  
**Deck Type II:** Wood, Insulated  
**Deck Description:** 1<sup>9</sup>/<sub>32</sub>" or greater plywood or wood plank secured with 0.113-inch x 2<sup>3</sup>/<sub>8</sub>" ring shank nails spaced 6" o.c. at supports with a maximum 24" o.c. spacing.  
**System Type C(9):** All layers of insulation simultaneously attached; membrane fully adhered.

**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.**

**Fire Barrier:** Atlas Roofing Corporation FR-10 or FR-50, GAF VersaShield Solo, 1/4"  
**(Optional)** DensDeck, 1/4" SECUROCK loose laid

One or more layers of any of the following insulations.

| <b>Base Layer (Optional)</b>   | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density</b>                |
|--|---|--|
| <b>Duro-Guard XPS Fan Fold, Duro-Guard ISO II-A, Duro-Guard ISO II-G, Duro-Guard ISO II-H<br/>Minimum 0.5" thick</b> | N/A                                       | N/A  |
| <b>Top Insulation Layer</b>  | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
| <b>DEXcell FA Glass Mat Roof Board<br/>Minimum 0.25" thick</b>   | <b>2 with 5</b>                           | <b>1:2</b>                                 |
| <b>DEXcell Cement Roof Board<br/>Minimum 7/16" thick</b>   | <b>2 with 5</b>                           | <b>1:2</b>                                 |

**Note: Insulation 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.**

**Membrane:** One ply of Duro-Last membrane, Duro-Tuff membrane or Duro-Last EV membrane fully adhered with Duro-Last WB II Adhesive applied at a minimum rate of 140 ft<sup>2</sup>/gal to substrate only. 3" wide laps are sealed with a minimum of 1.5" wide heat weld.  
 Or  
 One ply of Duro-Last membrane, Duro-Last Duro-Tuff or Duro-Last EV Membrane fully adhere with Duro-Last SB IV Adhesive applied at a minimum rate of 60 ft<sup>2</sup>/gal (apply 120 ft<sup>2</sup>/gal to both the membrane and substrate). 3" wide laps are sealed with a minimum of 1.5" wide heat weld.  
 Or  
 One ply of Duro-Fleece membrane or Duro-Fleece Plus membrane fully adhered with Duro-Last WB II Adhesive applied at a minimum rate of 100 ft<sup>2</sup>/gal to substrate only. 3" wide laps are sealed with a minimum 1.5" wide heat weld.

**Maximum Design Pressure:** -52.5 psf. (See General Limitation #7)



**Membrane Type:** Single Ply, PVC

**Deck Type II:** Wood, Insulated

**Deck Description:** 1<sup>9</sup>/<sub>32</sub>" or greater plywood or wood plank attached 6" o.c. with 8d nails to wood supports spaced a maximum 24" o.c.

**System Type D(1):** All layers of insulation and base sheet simultaneously attached.

**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.**

**Fire Barrier:** Atlas Roofing Corporation FR-10 or FR-50, GAF VersaShield Solo, 1/4"  
**(Optional)** DensDeck, 1/4" SECUROCK loose laid

One or more layers of the following insulations:

| <b>Base Layer (Optional)</b>   | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
|--|---|--|
| <b>Any Approved EPS or XPS listed in Table 2.<br/>Minimum 1/2" thick</b>   | N/A                                       | N/A  |
| <b>Top Insulation Layer</b>  | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
| <b>ACFoam II, ACFoam III, Duro-Guard ISO II-A, Duro-Guard ISO III-A, ENRGY 3, H-Shield,<br/>Duro-Guard ISO II-H, Duro-Guard ISO HD-G, Duro-Guard ISO II-G<br/>Minimum 1 1/2" thick</b> | N/A                                       | N/A  |

**Note: Insulation layer above shall be mechanically attached with preliminary fastening. All Insulation panels shall be mechanically fastened along with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.**

Membrane with 57" tabs: Duro-Last membrane shall be mechanically attached at its 6" wide tabs, spaced every 57" o.c. with Duro-Last #14 HD fasteners with Duro-Last 3-inch Metal Plates spaced 6" o.c. maximum, through the insulation and into the deck. Duro-Last Tab Sealer 4725 shall be applied over the tab membrane and to the overlying membrane underside at a rate of 60 ft<sup>2</sup>/gal (two-sided application). Laps are sealed with a minimum 1.5" wide heat weld.

***(Maximum Design Pressure -52.5 psf. See General Limitation #7)***

Duro-Last membrane shall be mechanically attached at its 6" wide tabs, spaced every 57" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point Fastener with Duro-Last Cleat Plates or OMG Eyehook Accuseam Platespaced 6" o.c. maximum, through the insulation and into the deck. Fastener-line located 2.7-inch from tab edge. Laps are sealed with a minimum 1.5" wide heat weld.

***(Maximum Design Pressure -52.5 psf. See General Limitation #7)***



Membrane with 60" tabs: Duro-Last membrane shall be mechanically attached at its 3" wide tabs, spaced every 60" o.c. with Duro-Last #14 HD fasteners with Duro-Last Poly-Plate or Cleat Plates spaced 6" o.c. maximum, through the insulation and into the deck. Duro-Last Tab Sealer 4725 shall be applied over the tab membrane and to the overlying membrane underside at a rate of 60 ft<sup>2</sup>/gal (two-sided application). Laps are sealed with a minimum 1.5" wide heat weld.

*(Maximum Design Pressure -45 psf. See General Limitation #7)*

Maximum Design  
Pressure:

See fastening above



**Membrane Type:** Single Ply, PVC  
**Deck Type 1I:** Wood, Insulated  
**Deck Description:** 1<sup>9</sup>/<sub>32</sub>" or greater plywood or wood plank secured with 0.113-inch x 2<sup>3</sup>/<sub>8</sub>" ring shank nails spaced 6" o.c. at supports with a maximum 24" o.c. spacing.  
**System Type D(2):** All layer of insulation and base sheet simultaneously attached. Membrane attached over preliminarily fastened insulation.

**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.**

**Fire Barrier:** Atlas Roofing Corporation FR-10 or FR-50, GAF VersaShield Solo, 1/4"  
**(Optional)** DensDeck, 1/4" SECUROCK loose laid

One or more layers of the following insulations:

| <b>Base layer (Optional)</b>                      | <b>Insulation Fasteners (Table 3)</b> | <b>Fastener Density</b> |
|---|---------------------------------------|-------------------------|
| <b>Any Approved EPS or XPS listed in Table 2.</b> |                                       |                         |
| <b>Minimum 1/2" thick</b>                         | N/A                                   | N/A                     |
| <b>Top Insulation Layer</b>                       | <b>Insulation Fasteners (Table 3)</b> | <b>Fastener Density</b> |
| <b>Duro-Fold Underlayment Board</b>               |                                       |                         |
| <b>Minimum 3/8" thick</b>                         | N/A                                   | N/A                     |
| <b>R-TECH Fan Fold, Duro-Guard ISO HD-G,</b>      |                                       |                         |
| <b>Minimum 1/2" thick</b>                         | N/A                                   | N/A                     |

**Note: Insulation 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 RAS 117 for fastening details) shall also be mechanically fastened along with the roof membrane as specified below (see RAS 117 for fastening details).**

Membrane with 60" tabs: Duro-Last membrane shall be mechanically attached at its 3" tabs, spaced every 60" with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last Poly Plates or Cleat Plates spaced 6" o.c. maximum, through the insulation and into the deck. Laps are sealed with a minimum 1.5" wide heat weld. **Maximum Design Pressure -52.5 psf. (See General Limitation #7)**

Membrane with 120" tabs: Duro-Last membrane shall be mechanically attached at its 6" tabs, spaced every 120" with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last Poly Plates or Cleat Plates spaced 6" o.c. maximum, through the insulation and into the deck. Laps are sealed with a minimum 1.5" wide heat weld. **Maximum Design Pressure -60 psf. (See General Limitation #7)**

Maximum Design Pressure: See fastening above



**Membrane Type:** Single Ply, PVC  
**Deck Type II:** Wood, Insulated  
**Deck Description:** Nominal 1" x 6" wood plank or greater attached with two (2) 8d nails to wood supports spaced a maximum 24" o.c.  
**System Type D(3):** All layers of insulation and base sheet simultaneously attached.

**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.**

**Fire Barrier:** Atlas Roofing Corporation FR-10 or FR-50, GAF VersaShield Solo, ¼"  
**(Optional)** DensDeck, ¼" SECUROCK loose laid

One or more layers of the following insulations:

| <b>Base Layer (Optional)</b>   | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
|--|---|--|
| <b>Any Approved EPS or XPS listed in Table 2.<br/>Minimum ½" thick</b>   |   |  |
| <b>Top Insulation Layer</b>  | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
| <b>ACFoam II, ACFoam III, Duro-Guard ISO II-A, Duro-Guard ISO III-A, ENRGY 3, H-Shield,<br/>Duro-Guard ISO II-H, Duro-Guard ISO HD-G<br/>Minimum 1½" thick</b> | N/A                                       | N/A  |

**Note: Insulation layer above shall be mechanically attached with preliminary fastening. All Insulation panels shall be mechanically fastened along with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.**

**Membrane with 25" tabs:** Duro-Last membrane shall be mechanically attached at its 6" wide tabs, spaced every 25" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point fastener with Duro-Last Cleat Plates or OMG Eyehook Accuseam Plate spaced 6" o.c. maximum, through the insulation and into the deck. Duro-Last Tab Sealer 4725 shall be applied over the tab membrane and to the overlying membrane underside at a rate of 60 ft<sup>2</sup>/gal (two-sided application). Laps are sealed with a minimum 1.5" wide heat weld.

**Maximum Design Pressure:** -97.5 psf. (See General Limitation #7)



**Membrane Type:** Single Ply, PVC

**Deck Type 1I:** Wood, Insulated

**Deck Description:** 1<sup>9</sup>/<sub>32</sub>" or greater plywood or wood plank attached 6" o.c. with 8d nails to wood supports spaced a maximum 32" o.c.

**System Type D(4):** All layers of insulation and base sheet simultaneously attached.

**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.**

**Thermal Barrier:** Atlas Roofing Corporation FR-10 or FR-50, GAF VersaShield Solo, 1/4"  
**(Optional)** DensDeck, 1/4" SECUROCK loose laid

One or more layers of the following insulations:

| Insulation Layer  | Insulation Fasteners<br>(Table 3) | Fastener<br>Density/ft <sup>2</sup> |
|---|-----------------------------------|-------------------------------------|
| <b>DensDeck, DEXcell FA Glass Mat Roof Board, SECUROCK Gypsum Fiber Roof Board<br/>Minimum 1/4" thick</b>   | N/A                               | N/A                                 |
| <b>Duro-Fold Underlayment Board<br/>Minimum 3/8" thick</b>  | N/A                               | N/A                                 |
| <b>Duro-Guard EPS, Cellofoam Type IX EPS Insulation, Insulfoam EPS, Kingspan Greengard<br/>Insulation Board CM, Duro-Guard ISO II-G, Insulfoam R-Tech Fan Fold, Duro-Guard ISO HD-<br/>A, Duro-Guard ISO HD-H, Duro-Guard ISO HD-G<br/>Minimum 1/2" thick</b> | N/A                               | N/A                                 |
| <b>DEXcell Cement Roof Board<br/>Minimum 7/16" thick</b>  | N/A                               | N/A                                 |
| <b>Duro-Guard ISO II-A, Duro-Guard ISO II-H, Duro-Guard EPS FGF<br/>Minimum 1" thick</b>  | N/A                               | N/A                                 |

**Note: Insulation layer above shall be mechanically attached with preliminary fastening. All Insulation panels shall be mechanically fastened along with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.**

**Membrane:** Minimum 50 mil Duro-Tuff membrane shall be mechanically attached at its 6" wide tabs, spaced every 54" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last Poly Plates spaced 12" o.c. The 6" wide side laps are sealed with a 1-1/2" wide heat weld.

**Maximum Design Pressure:** -45 psf (See General limitation #7)



**Membrane Type:** Single Ply, PVC

**Deck Type 1I:** Wood, Insulated

**Deck Description:** <sup>19</sup>/<sub>32</sub>" or greater plywood or wood plank attached 6" o.c. with 8d nails to wood supports spaced a maximum 24" o.c.

**System Type D(5):** All layers of insulation and base sheet simultaneously attached.

**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.**

**Thermal Barrier:** Atlas Roofing Corporation FR-10 or FR-50, GAF VersaShield Solo, ¼"  
**(Optional)** DensDeck, ¼" SECUROCK loose laid

One or more layers of the following insulations:

| <b>Top Insulation Layer</b>   | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
|---|---|--|
| <b>DensDeck Prime, DEXcell FA Glass Mat Roof Board, SECUROCK Gypsum Fiber Roof Board<br/>Minimum 1/4" thick</b>                                 | N/A                                       | N/A  |
| <b>Duro-Fold Underlayment Board<br/>Minimum 3/8" thick</b>  | N/A                                       | N/A  |
| <b>Duro-Guard EPS, Duro-Guard ISO II-G, R-TECH Fan Fold, Duro-Guard ISO HD-A, Duro-Guard ISO HD-H, Duro-Guard ISO HD-G<br/>Minimum ½" thick</b> | N/A                                       | N/A  |
| <b>DEXcell Cement Roof Board<br/>Minimum 7/16" thick</b>  | N/A                                       | N/A  |
| <b>Duro-Guard ISO II-A, Duro-Guard ISO II-H, Duro-Guard EPS FGF<br/>Minimum 1" thick</b>  | N/A                                       | N/A  |

**Note: Insulation layer above shall be mechanically attached with preliminary fastening. All Insulation panels shall be mechanically fastened along with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.**

**Membrane:** Minimum 50 mil Duro-Tuff membrane shall be mechanically attached at its 6" wide tabs, spaced every 114" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last Poly Plates spaced 6" o.c. fasteners centered 2" from tab edge. The 6" wide side laps are sealed with a 1-1/2" wide heat weld.

**Maximum Design Pressure:** -45 psf (See General limitation #7)



**Membrane Type:** Single Ply, PVC

**Deck Type 1I:** Wood, Insulated

**Deck Description:** 1<sup>9</sup>/<sub>32</sub>" or greater plywood or wood plank attached 6" o.c. with 8d nails to wood supports spaced a maximum 32" o.c.

**System Type D(6):** All layers of insulation and base sheet simultaneously attached.

**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.**

**Fire Barrier:** Atlas Roofing Corporation FR-10 or FR-50, GAF VersaShield Solo, 1/4"  
**(Optional)** DensDeck, 1/4" SECUROCK loose laid

One or more layers of the following insulations:

| <b>Insulation Layer</b>   | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
|---|---|--|
| <b>DensDeck, DEXcell FA Glass Mat Roof Board, SECUROCK Gypsum Fiber Roof Board<br/>Minimum 1/4" thick</b>   | N/A                                       | N/A  |
| <b>Duro-Fold Underlayment Board<br/>Minimum 3/8" thick</b>  | N/A                                       | N/A  |
| <b>Duro-Guard EPS, Cellofoam Type IX EPS Insulation, Insulfoam EPS, Kingspan Greengard<br/>Insulation Board CM, Duro-Guard ISO II-G, R-TECH Fan Fold, Duro-Guard ISO HD-A, Duro-<br/>Guard ISO HD-H, Duro-Guard ISO HD-G<br/>Minimum 1/2" thick</b> | N/A                                       | N/A  |
| <b>DEXcell Cement Roof Board<br/>Minimum 7/16" thick</b>  | N/A                                       | N/A  |
| <b>Duro-Guard ISO II-A, Duro-Guard ISO II-H, Duro-Guard EPS FGF<br/>Minimum 1" thick</b>  | N/A                                       | N/A  |

**Note: Insulation layer above shall be mechanically attached with preliminary fastening. All Insulation panels shall be mechanically fastened along with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.**

**Membrane:** Minimum 50 mil Duro-Tuff membrane shall be mechanically attached at its 6" wide tabs, spaced every 114" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last Poly Plates spaced 6" o.c. The 6" wide side laps are sealed with a 1-1/2" wide heat weld

**Maximum Design Pressure:** -52.5 psf (See General limitation #7)





**Membrane Type:** Single Ply, PVC

**Deck Type 1I:** Wood, Insulated

**Deck Description:** 1<sup>9</sup>/<sub>32</sub>" or greater plywood or wood plank attached 6" o.c. with 8d nails to wood supports spaced a maximum 24" o.c.

**System Type D(7):** All layers of insulation and base sheet simultaneously attached.

**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.**

**Fire Barrier:** Atlas Roofing Corporation FR-10 or FR-50, GAF VersaShield Solo, 1/4"  
**(Optional)** DensDeck, 1/4" SECUROCK loose laid

One or more layers of the following insulations:

| <b>Insulation Layer</b>   | <b>Insulation Fasteners<br/>(Table 3)</b> | <b>Fastener<br/>Density/ft<sup>2</sup></b> |
|---|---|--|
| <b>DensDeck Prime, DEXcell FA Glass Mat Roof Board, SECUROCK Gypsum Fiber Roof Board<br/>Minimum 1/4" thick</b>                                   | N/A                                       | N/A  |
| <b>Duro-Fold Underlayment Board<br/>Minimum 3/8" thick</b>  | N/A                                       | N/A  |
| <b>Duro-Guard EPS, Duro-Guard ISO II-G, R-TECH Fan Fold, Duro-Guard ISO HD-A, Duro-Guard ISO HD-H, Duro-Guard ISO HD-G<br/>Minimum 1/2" thick</b> | N/A                                       | N/A  |
| <b>DEXcell Cement Roof Board<br/>Minimum 7/16" thick</b>  | N/A                                       | N/A  |
| <b>Duro-Guard ISO II-A, Duro-Guard ISO II-H, Duro-Guard EPS FGF<br/>Minimum 1" thick</b>  | N/A                                       | N/A  |

**Note: Insulation layer above shall be mechanically attached with preliminary fastening. All Insulation panels shall be mechanically fastened along with the roof membrane as specified below. See Roofing Application Standard RAS 117 for fastening details.**

**Membrane:** Minimum 50 mil Duro-Tuff membrane shall be mechanically attached at its 6" wide tabs, spaced every 54" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last Poly Plates spaced 6" o.c. fasteners centered 1-1/4" from tab edge. The 6" wide side laps are sealed with a 1-1/2" wide heat weld.

**Maximum Design Pressure:** -67.5 psf (See General limitation #7)



**Membrane Type:** Single Ply, PVC  
**Deck Type 1:** Wood, Non-Insulated  
**Deck Description:** 19/32" or greater plywood or wood plank fastened with 1/4" x 2" self-tapping hex head screws at maximum 12" spacing to supports having a maximum 24" o.c. span.  
**System Type E(1):** Membrane mechanically attached through optional barriers to structural deck supports.

**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.**

**Separation Sheet** (Optional) One ply of Duro-Blue Separation Slip Sheet or Duro-Weave Separation Slip Sheet applied as per manufacturers installation instructions.

**Vapor Barrier:** (Optional) Any UL or FM approved vapor barrier.

**Fire Barrier:** (Optional) Atlas Roofing Corporation FR-10 or FR-50, GAF VersaShield Solo, 1/4" DensDeck, 1/4" SECUROCK, 1/2" thick UL Classification Type X Gypsum with a moisture resistant facer and core, or a second sheet of vapor barrier board may be used over this deck (see General Limitation #1).

**Membrane with 120" tabs:** Duro-Last membrane shall be mechanically attached into the wood supports at the 6" tabs, spaced every 120" with Duro-Last #14 HD Fasteners and Duro-Last Poly Plates or Cleat-Plates spaced 6" o.c. maximum. Laps are sealed with a minimum 1.5" wide heat weld.  
**Maximum Design Pressure -52.5 psf. (See General Limitation #7)**

**Membrane with 60" tabs:** Duro-Last membrane shall be mechanically attached into the wood supports at the 3" tabs, spaced every 60" with Duro-Last #14 HD Fasteners and Duro-Last Poly Plates or Cleat-Plates spaced 6" o.c. maximum. Laps are sealed with a minimum 1.5" wide heat weld.  
**Maximum Design Pressure -52.5 psf. (See General Limitation #7)**

**Membrane with 120" tabs:** Duro-Last membrane shall be mechanically attached into the wood supports at the 6" tabs, spaced every 120" with Duro-Last #14 HD Fasteners and Duro-Last Poly Plates or Cleat-Plates spaced 6" o.c. maximum. Duro-Last Tab Sealer 4725 shall be applied over the membrane and to the overlying membrane underside at a rate of 30 ft<sup>2</sup>/gal (two-sided application) Laps are sealed with a minimum 1.5" wide heat weld.  
**Maximum Design Pressure -82.5 psf. (See General Limitation #7)**

**Maximum Design Pressure:** See fastening above



- Membrane Type:**
- Deck Type II:** Wood, Non-Insulated
- Deck Description:** 1<sup>9</sup>/<sub>32</sub>" plywood or wood plank with supports at a maximum spacing of 24" o.c.
- System Type E(2):** Membrane induction welded to mechanically attached fire barrier over existing single ply membrane roof

**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.**

- Fire Barrier:** GAF VersaShield Solo fastened as below
- Membrane:** Fire barrier shall be through fastened to the wood supports with the fastener and plate listed below. The Duro-Last membrane, Duro-Last EV membrane or the Duro-Tuff membrane shall be welded to the Duro-Bond Plates in the manner and the spacing specified below.
- Fastening:** Fire barrier shall be mechanically attached in a 1.5 ft x 2 ft staggered grid with Duro-Bond Plates 1302 and Duro-Last #15 Extra Heavy Duty Drill Point Fasteners. The Duro-Last membrane, Duro-Last EV membrane or Duro-Tuff membrane is welded to the Duro-Bond Plate 1302 with RhinoBond Welder. Laps are sealed with a minimum 1-1/2" wide heat weld.
- Maximum Design Pressure:** -45 psf. (See General Limitation #7)



**Membrane Type:** Single Ply, PVC  
**Deck Type II:** Wood, Non-Insulated  
**Deck Description:** 1<sup>5</sup>/<sub>32</sub>" or greater plywood or wood plank secured with 0.113-inch x 2<sup>3</sup>/<sub>8</sub>" ring shank nails spaced 6" o.c. at supports with a maximum 24" o.c. spacing.  
**System Type E(3):** Membrane mechanically fastened.

**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.**

**Membrane:** Minimum 50 mil Duro-Tuff membrane shall be mechanically attached at its 6" wide tabs, in rows spaced 24" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last Poly Plates. The 6" wide side laps are sealed with a 1-1/2" wide heat weld.

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

**Membrane Type:** Single Ply, PVC  
**Deck Type II:** Wood, Non-Insulated  
**Deck Description:** 1<sup>5</sup>/<sub>32</sub>" or greater plywood or wood plank secured with 0.113-inch x 2<sup>3</sup>/<sub>8</sub>" ring shank nails spaced 6" o.c. at supports with a maximum 24" o.c. spacing.  
**System Type E(4):** Membrane mechanically fastened.

**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.**

**Membrane:** Minimum 40 mil Duro-Last membrane shall be mechanically attached along the tab 6" o.c. with Duro-Last #15 Extra Heavy Duty Drill Point Fasteners and Duro-Last Poly Plates. The 3" wide side laps are spaced 28" o.c and sealed with a 1" wide 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 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 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 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.)**
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**

