MIAMI-DADE

**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)

**Siplast, Inc.**
**1111 Highway 67 South**
**Arkadelphia, AR 71923**

**SCOPE:**
This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

**DESCRIPTION: Siplast Modified Bitumen Roof System over Recover 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 consists of pages 1 through 19.
The submitted documentation was reviewed by Frank Zuloaga, RRC

PRODUCT CONTROL ACCEPTED

## ROOFING ASSEMBLY APPROVAL

| | |
|---|---|
| Category: | Roofing |
| Sub-Category: | SBS/SBS Foil Modified Bitumen |
| Deck Type: | Recover |
| Maximum Design Pressure | -67 psf |
| Fire Classification: | See General Limitation #1 |

## TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

**TABLE 1**

| Product | Dimensions | Test Specification | Product Description |
|---|---|---|---|
| IREX HT | 3.28' x 34'; 89 lbs./sq. | ASTM D 5147 | High-melt asphalt sheet with fiberglass scrim reinforcement for use as a base ply sheet for the Veral system. |
| IREX PR | 3.28' x 34'; 89 lbs./sq. | ASTM D 5147 | High-melt asphalt sheet with polyester mat / fiberglass scrim reinforcement for use as a mechanically fastened base sheet with the Veral system. |
| IREX 40 | 3.28' x 34'; 89 lbs./sq. | ASTM D 5147 | High-melt asphalt sheet with random fiberglass mat reinforcement for use as the base ply sheet for a Veral system. |
| IREX 30 | 3.28' x 34'; 74 lbs./sq. | ASTM D 5147 | High-melt asphalt sheet with random fiberglass mat reinforcement for use as the base ply sheet for a Veral system. |
| PA 311/311 C Adhesive | 5 or 55 gal. | ASTM D 4479 | Blend of adhesive asphalts and quick-drying solvents. |
| PA 1021 Plastic Cement | 5 gal. | ASTM D 4586 | Asphalt cutback reinforced general purpose cement with non-asbestos fibers. |
| PA 1125 Asphalt Primer | 5 or 55 gal. | ASTM D 41 | Asphalt primer. |
| Parabase | 3' x 108' | ASTM D 4601 | Asphalt coated fiberglass base sheet for mechanically fastened applications. |
| Parabase Plus | 3.28' x 102.3'; 28 lbs./sq. | ASTM D 5147 | Elastomeric asphalt coated base sheet. |
| Paradiene 20 HV | 3.28' x 33.5'; 90 lbs./sq. | ASTM D 5147 | Heavy duty asphalt elastomer sheet with random fiberglass mat reinforcement used as a base ply of a Paradiene 20/30 system. |
| Paradiene 20 HVTG | 3.28' x 33.5'; 100 lbs./sq. | ASTM D 5147 | Heavy duty asphalt elastomer sheet with random fiberglass mat reinforcement used as a base ply of a Paradiene 20TG/30TG system. |

| Product | Dimensions | Test Specification | Product Description |
|---|---|---|---|
| Paradiene 30 HTFR | 3.28' x 33.5'; 87 lbs./sq. | ASTM D 5147 | Fire-rated asphalt elastomer sheet with mineral surfacing and fiberglass scrim reinforcement for use as the top ply of a Paradiene 20/30 FR system. |
| Paradiene 30 FRTG | 3.28' x 25.25'; 80 lbs./sq. | ASTM D 5147 | Fire rated asphalt elastomer sheet with mineral surfacing and random fiberglass mat reinforcement for use as the top ply sheet of a Paradiene 20/30 TG Series system. |
| Paradiene 30 HTFRTG | 3.28' x 25.25'; 80 lbs./sq. | ASTM D 5147 | Fire rated asphalt elastomer sheet with mineral surfacing and fiberglass scrim reinforcement for use as the top ply of a Paradiene TG Series system. |
| Paradiene 30 | 3.28' x 33.5'; 85 lbs./sq. | ASTM D 5147 | Asphalt elastomer sheet with mineral surfacing and random glass mat reinforcement, for use as the top ply of a Paradiene 20/30 system. |
| Paradiene 20 | 3.28' x 50'; 90 lbs./ sq. | ASTM D 5147 | Asphalt elastomer sheet with random fiberglass mat reinforcement used as the base ply of a Paradiene 20/30 system. |
| Paradiene 30 HT | 3.28' x 33.5'; 85 lbs./sq. | ASTM D 5147 | Asphalt elastomer sheet with mineral surfacing and fiberglass scrim reinforcement for use as the top ply of a Paradiene 20/30 system. |
| Paradiene 20 HT | 3.28' x 50'; 90 lbs./sq. | ASTM D 5147 | Asphalt elastomer sheet with fiberglass scrim reinforcement for use as a base ply of a Paradiene 20/30 system. |
| Paradiene 20 HTTG | 3.28' x 33.5'; 70 lbs./sq. | ASTM D 5147 | Asphalt elastomer sheet with fiberglass scrim reinforcement for use as a base ply of a Paradiene 20/30 system. |
| Paradiene 20 EG | 3.28' x 33.5'; 90 lbs./sq. | ASTM D 5147 | Heavy duty asphalt elastomer sheet with fiberglass scrim reinforcement for use as a base ply in Paradiene systems. |
| Paradiene 20 TG | 3.28' x 33.5'; 70 lbs./sq. | ASTM D 5147 | Asphalt elastomer sheet with random fiberglass reinforcement used as the base ply of a Paradiene 20/30 TG Series system. |
| Paradiene 20 PR | 3.28' x 50'; 90 lbs./sq. | ASTM D 5147 | Asphalt elastomer sheet with polyester fiberglass scrim composite reinforcement used as the top ply of a Paradiene 20/20 PR system having a gravel surfacing. Has additional puncture resistance. |

| Product | Dimensions | Test Specification | Product Description |
|---|---|---|---|
| Paradiene 30 HTTG | 3.28' x 25.25'; 80 lbs./sq. | ASTM D 5147 | Asphalt elastomer sheet with mineral surfacing and fiberglass scrim reinforcement for use as the top ply of a Paradiene 20/30 TG Series system requiring high tensile strength. |
| Paradiene 30FR | 3.28' x 33.5'; 85 lbs./sq. | ASTM D 5147 | Asphalt elastomer sheet with mineral surfacing and random glass mat reinforcement, for use as the top ply of a Paradiene 20/30 system. |
| Paradiene 30TG | 3.28' x 25.25'; 80 lbs./sq. | ASTM D 5147 | Fire rated asphalt elastomer sheet with mineral surfacing and random fiberglass mat reinforcement for use as the top ply sheet of a Paradiene 20/30 TG Series system. |
| Paradiene 20EGTG | 3.28' x 33.5'; 100 lbs./sq. | ASTM D 5147 | Heavy duty asphalt elastomer sheet with fiberglass scrim reinforced for use as a base ply in Paradiene 20TG/30TG systems. |
| Paraglas | 3' x 180'; 12 lbs./sq. | ASTM D 2178 Type IV | Asphalt coated fiberglass mat used as a base or ply sheet. |
| Paravent | 3' x 108' | ASTM D 4601 | Asphalt coated venting fiberglass base sheet with 1.5 inch perforations. |
| Veral Stainless Steel | 3.28 ' x 33.5'; 105 lbs./sq. | ASTM D 5147 | Stainless steel clad asphalt elastomer sheet with fiberglass scrim reinforcement for use as the top ply sheet of a Veral system. |
| Veral Spectra Series | 3.28' x 33.5'; 90 lbs./sq. | ASTM D 5147 | Aluminum clad asphalt elastomer sheet with fiberglass scrim reinforcement and factory finished with a Kynar PVDF coating. |
| Veral Aluminum | 3.28' x 33.5'; 90 lbs./sq. | ASTM D 5147 | Aluminum clad asphalt elastomer sheet with woven fiberglass reinforcement for use as the top ply sheet of a Veral system. |
| Veral Copper | 3.28' x 33.5'; 105 lbs./sq. | ASTM D 5147 | Copper clad asphalt elastomer sheet with foverglass scrim reinforcement for use as the top ply of a Veral system. |

## APPROVED INSULATIONS:

**TABLE 2**

| Product Name | Product Description | Manufacturer (With Current NOA) |
|---|---|---|
| ACFoam I, II | Isocyanurate Insulation | Atlas Roofing Corp. |
| Fiberglas | Fiber glass roof insulation. | Generic |

## APPROVED INSULATIONS:

**TABLE 2**

| Product Name | Product Description | Manufacturer (With Current NOA) |
|---|---|---|
| High Density Wood Fiberboard | High Density Wood Fiber insulation board. | Generic |
| Perlite Insulation Board | Perlite Insulation | Generic |
| Dens Deck<br>Dens Deck Prime | Water resistant gypsum | G-P Gypsum Corp. |
| H-Panel | Isocyanurate Insulation. | Hunter Panels LLC |
| ENRGY 2 | Isocyanurate Insulation. | Johns Manville |
| Fiber Glass Roof Insulation | Fiberglas roof insulation. | Johns Manville |
| ISORoc | Polyisocyanurate foam insulation. | Johns Manville |
| DuraBoard | Expanded Mineral Fiber | Johns Manville |
| Multi-Max, FA | Polyisocyanurate foam insulation. | Rmax Inc. |

## APPROVED FASTENERS:

**TABLE 3**

| Fastener Number | Product Name | Product Description | Dimensions | Manufacturer (With Current NOA) |
|---|---|---|---|---|
| 1. | Dekfast Fasteners #12, #14 & #15 | Insulation fastener for wood, steel and concrete decks | | Construction Fasteners Inc. |
| 2. | Dekfast Hex Plate | Galvalume hex stress plate. | 2 7/8" x 3 1/4" | Construction Fasteners Inc. |
| 3. | Dekfast Lock Plate | Polypropylene locking plate. | 3" x 3 1/4" | Construction Fasteners Inc. |
| 4. | #12, #15 Roofgrip Fasteners | Insulation fastener for wood and steel. | | ITW Buildex Corp. |
| 5. | Metal Plate | Galvalume stress plate. | 3" round<br>3" square | ITW Buildex Corp. |
| 6. | Gearlok Plastic Plate | Polypropylene round plate | 3.2" | ITW Buildex Corp. |
| 7. | UltraFast | Insulation fastener for wood and steel. | | Johns Manville |
| 8. | UltraFast Metal Plate | Galvalume AZ55 steel plate | 3" square &<br>3" round | Johns Manville |

## APPROVED FASTENERS:

TABLE 3

| Fastener Number | Product Name | Product Description | Dimensions | Manufacturer (With Current NOA) |
|---|---|---|---|---|
| 9. | UltraFast Plastic Plate | High Density Polyolefin round plate | 3" round | Johns Manville |
| 10. | Olympic Fastener #12 & #14 | Insulation fastener | | Olympic Mfg. Group, Inc. |
| 11. | Olympic Polypropylene | Polypropylene plastic plate | 3.25" round | Olympic Mfg. Group, Inc. |
| 12. | Olympic Standard | 3" round galvalume AZ50 steel plate | 3" round | Olympic Mfg. Group, Inc. |
| 13. | Olympic G-2 | 3.5" round galvalume AZ55 steel plate | 3.5" round | Olympic Mfg. Group, Inc. |
| 14. | System ES-I | Preassembled plate/screw unit for fastening insulation | | SFS Stadler, Inc. |
| 15. | Tru-Fast | Insulation fastener for steel and wood decks | | The Tru-Fast Corp. |
| 16. | Tru-Fast Plates | 3" round galvalume AZ55 steel plate | 3" round | The Tru-Fast Corp. |
| 17. | Tru-Fast Plates | Polyethylene plastic plate | 3" round | The Tru-Fast Corp. |

## EVIDENCE SUBMITTED:

| Test Agency/Identifier | Name | Report | Date |
|---|---|---|---|
| Factory Mutual Research Corp. | Current Insulation Attachment Requirements | FMRC 1996 | 01.01.96 |
| Factory Mutual Research Corp. | Wind Uplift FMRC 4470 - PA 114 | J.I. 2X1A2.AM | 11.04.93 |
| Factory Mutual Research Corp. | Wind Uplift FMRC 4470 - PA 114 | J.I. 0T0A2.AM | 10.24.91 |
| Factory Mutual Research Corp. | Wind Uplift FMRC 4470 - PA 114 | J.I. 1M9A7.AM | 09.03.86 |
| Factory Mutual Research Corp. | Wind Uplift FMRC 4470 - PA 114 | J.I. 0T2A7.AM | 10.28.91 |
| Factory Mutual Research Corp. | Wind Uplift FMRC 4470 - PA 114 | J.I. 1V2A3.AM | 06.29.92 |
| Factory Mutual Research Corp. | Wind Uplift FMRC 4470 - PA 114 | J.I. 0G6A0.AM | |
| Factory Mutual Research Corp. | Wind Uplift FMRC 4470 - PA 114 | J.I. 2Y1A1.AM | 04.15.96 |

| Test Agency/Identifier | Name | Report | Date |
|---|---|---|---|
| Factory Mutual Research Corp. | Wind Uplift<br>FMRC 4470 - PA 114 | J.I. 3Z3A7.AM | 04.12.96 |
| Underwriters Laboratories, Inc. | Fire Resistance Classification<br>UL 790 - PA 114 | R10630 | 01.01.96 |
| Warnock Hersey, Inc. | Physical Properties<br>ASTM D 5147 - PA 110 | WH - 1234 | 12.15.93 |
| Exterior Research & Design, LLC. - Trinity Engineering | Wind Uplift<br>PA 114 | #4701.02.96-1 | 02.28.96 |
| Exterior Research & Design, LLC - Trinity Engineering | Wind Uplift<br>PA 114 | #4701.09.96-1 | 08.22.96 |

## APPROVED ASSEMBLIES

**Membrane Type:** SBS Foil

**Deck Type 7I:** Recover

**Deck Description:** Concrete/lightweight concrete/cementitious wood fiber/wood/steel

**System Type A:** Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

**All General and System limitations apply.**

One or more layers of any of the following insulations:

| Insulation Layer | Insulation Fasteners Table 3 | Fastener Density/ft$^2$ |
|---|---|---|
| **ENRGY-2, ACFoam-I, II, ISORoc, Fiberglas Minimum 1" thick** | **N/A** | **N/A** |
| **Perlite Minimum ¾" thick** | **N/A** | **N/A** |
| **High Density Wood Fiberboard Minimum ½" thick** | **N/A** | **N/A** |

**Note: All layers of insulation in a full mopping of any approved mopping asphalt within the EVT range and at a rate of 20-40 lbs/100 ft$^2$. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.**

Base Sheet: (Optional) One or more plies of Paraglas adhered to the insulation with approved mopping asphalt at an application rate of 20-25 lbs./sq. See General Limitation #4.

Ply Sheet: IREX 30, IREX 40 or IREX HT, adhered in approved mopping asphalt. IREX 40 or IREX HT may be applied by torch. See General Limitation #4.

Membrane: Veral adhered in approved mopping asphalt or by torch.

**Note:** **Refer to manufacturer's specifications for specific application requirements.**

Surfacing: None

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

**Membrane Type:** SBS

**Deck Type 7I:** Recover

**Deck Description:** Concrete/lightweight concrete/cementitious wood fiber/wood/steel

**System Type B:** Base layers 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/ft$^2$ |
|---|---|---|
| **ENRGY-2, ACFoam-I, II**<br>**Minimum 1.3" thick** | **See Table 3** | **1:3 ft$^2$** |
| **ISORoc**<br>**Minimum 1" thick** | **See Table 3** | **1:2.67 ft$^2$** |
| **Fiberglas**<br>**Minimum 2-$^7/_{16}$" thick** | **See Table 3** | **1:3 ft$^2$** |
| **Perlite**<br>**Minimum ¾" thick** | **See Table 3** | **1:2 ft$^2$** |
| **High Density Wood Fiberboard**<br>**Minimum ½" thick** | **See Table 3** | **1:4 ft$^2$** |

**Note: Base 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. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements set forth in Applicable Building Code. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

| Top Insulation Layer | Insulation Fasteners Table 3 | Fastener Density/ft$^2$ |
|---|---|---|
| **Fiberglas**<br>**Minimum 2-$^7/_{16}$" thick** | **N/A** | **N/A** |
| **Perlite**<br>**Minimum ¾" thick** | **N/A** | **N/A** |
| **High Density Wood Fiberboard**<br>**Minimum ½" thick** | **N/A** | **N/A** |

**Note: Apply top layer of insulation in a full mopping of any approved mopping asphalt within the EVT range and at a rate of 20-40 lbs/100 ft$^2$. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as Base Layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.**

| | |
|---|---|
| Base Sheet: | (Optional) One or more plies of Paraglas adhered to the insulation with approved mopping asphalt at an application rate of 20-25 lbs./sq.. See General Limitation #4. |
| Ply Sheet: | Paradiene 20 TG, 20 HVTG, 20 HTTG or 20 EGTG, adhered by torch, or Paradiene 20, 20 FR, 20 HT, 20 HV or 20 EG adhered with approved mopping asphalt at an application rate of 20-25 lbs./sq. or with PA 311 adhesive. See General Limitation #4. |
| Membrane: | Paradiene 30 FR or 30 HTFR adhered in approved mopping asphalt at an application rate of 20-25 lbs./sq. or PA 311 adhesive; Paradiene 30 FRTG or 30 HTFRTG adhered by torch. |
| **Note:** | **Refer to manufacturer's specifications for specific application requirements.** |
| Surfacing: | None |
| Maximum Design Pressure: | -52 psf (See General Limitation #9) |

**Membrane Type:** SBS Foil

**Deck Type 7I:** Recover

**Deck Description:** Concrete/lightweight concrete/cementitious wood fiber/wood/steel

**System Type B:** Base layers 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/ft$^2$ |
|---|---|---|
| **ENRGY-2, ACFoam-I, II, UltraGard Premier Minimum 1.3" thick** | **See Table 3** | **1:3 ft$^2$** |
| **ISORoc Minimum 1" thick** | **See Table 3** | **1:2.67 ft$^2$** |
| **Fiberglas Minimum 2-$^7/_{16}$" thick** | **See Table 3** | **1:3 ft$^2$** |
| **Perlite Minimum ¾" thick** | **See Table 3** | **1:2 ft$^2$** |
| **High Density Wood Fiberboard Minimum ½" thick** | **See Table 3** | **1:4 ft$^2$** |

**Note: Base 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. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements set forth in Applicable Building Code. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

| Top Insulation Layer | Insulation Fasteners Table 3 | Fastener Density/ft$^2$ |
|---|---|---|
| **Fiberglas Minimum 2-$^7/_{16}$" thick** | **N/A** | **N/A** |
| **Perlite Minimum ¾" thick** | **N/A** | **N/A** |
| **High Density Wood Fiberboard Minimum ½" thick** | **N/A** | **N/A** |

**Note: Apply top layer of insulation in a full mopping of any approved mopping asphalt within the EVT range and at a rate of 20-40 lbs/100 ft$^2$. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as Base Layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.**

| | |
|---|---|
| Base Sheet: | (Optional) One or more plies of Paraglas adhered to the insulation with approved mopping asphalt at an application rate of 20-25 lbs./sq. See General Limitation #4. |
| Ply Sheet: | IREX 30, IREX 40 or IREX HT, adhered in approved mopping asphalt at an application rate of 20-25 lbs./sq.. IREX 40 or IREX HT may be applied by torch. See General Limitation #4. |
| Membrane: | Veral adhered in approved mopping asphalt at an application rate of 20-25 lbs./sq. or by torch. |
| **Note:** | **Refer to manufacturer's specifications for specific application requirements.** |
| Surfacing: | None |
| Maximum Design Pressure: | -45 psf (See General Limitation #9) |

**Membrane Type:** SBS

**Deck Type 7I:** Recover

**Deck Description:** Concrete/lightweight concrete/cementitious wood fiber/wood/steel

**System Type C:** All layers of insulation simultaneously attached.

**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/ft$^2$** |
|---|---|---|
| **ENRGY-2, ACFoam-I, II**<br>**Minimum 1.3" thick** | **N/A** | **N/A** |
| **ISORoc**<br>**Minimum 1" thick** | **N/A** | **N/A** |
| **Fiberglas**<br>**Minimum 2-$^7/_{16}$" thick** | **N/A** | **N/A** |
| **Perlite**<br>**Minimum ¾" thick** | **N/A** | **N/A** |
| **High Density Wood Fiberboard**<br>**Minimum ½" thick** | **N/A** | **N/A** |

| **Top Insulation Layer** | **Insulation Fasteners Table 3** | **Fastener Density/ft$^2$** |
|---|---|---|
| **Fiberglas**<br>**Minimum 2-$^7/_{16}$" thick** | **See Table 3** | **1:3 ft$^2$** |
| **Perlite**<br>**Minimum ¾" thick** | **See Table 3** | **1:2 ft$^2$** |
| **High Density Wood Fiberboard**<br>**Minimum ½" thick** | **See Table 3** | **1:4 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. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

Base Sheet: (Optional) One or more plies of Paraglas adhered to the insulation with approved mopping asphalt at a rate of 20-25 lbs./sq.. See General Limitation #4.

Ply Sheet: Paradiene 20 TG, 20 HVTG, 20 HTTG or 20 EGTG adhered by torch, or Paradiene 20, 20 FR, 20 HT, 20 HV or 20 EG adhered with approved mopping asphalt at an application rate of 20-25 lbs./sq. or with PA 311 adhesive. See General Limitation #4.

| | |
|---|---|
| Membrane: | Paradiene 30 FR or 30 HTFR adhered in approved mopping asphalt at an application rate of 20-25 lbs./sq., or with PA 311 adhesive or Paradiene 30 FRTG or 30 HTFRTG adhered by torch. |
| **Note:** | **Refer to manufacturer's specifications for specific application requirements.** |
| Surfacing: | None |
| Maximum Design Pressure: | -52 psf (See General Limitation #9) |

**Membrane Type:** SBS Foil

**Deck Type 7I:** Recover

**Deck Description:** Concrete/lightweight concrete/cementitious wood fiber/wood/steel

**System Type C:** All layers of insulation simultaneously attached.

**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/ft$^2$** |
|---|---|---|
| **ENRGY-2, ACFoam-I, II**<br>**Minimum 1.3" thick** | **N/A** | **N/A** |
| **ISORoc**<br>**Minimum 1" thick** | **N/A** | **N/A** |
| **Fiberglas**<br>**Minimum 2-$^7/_{16}$" thick** | **N/A** | **N/A** |
| **Perlite**<br>**Minimum ¾" thick** | **N/A** | **N/A** |
| **High Density Wood Fiberboard**<br>**Minimum ½" thick** | **N/A** | **N/A** |
| **Top Insulation Layer** | **Insulation Fasteners Table 3** | **Fastener Density/ft$^2$** |
| **Fiberglas**<br>**Minimum 2-$^7/_{16}$" thick** | **See Table 3** | **1:3 ft$^2$** |
| **Perlite**<br>**Minimum ¾" thick** | **See Table 3** | **1:2 ft$^2$** |
| **High Density Wood Fiberboard**<br>**Minimum ½" thick** | **See Table 3** | **1:4 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. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

Base Sheet: (Optional) One or more plies of Paraglas adhered to the insulation with approved mopping asphalt at an application rate of 20-25 lbs./sq. See General Limitation #4.

Ply Sheet: IREX 30, IREX 40 or IREX HT, adhered in approved mopping asphalt at an application rate of 20-25 lbs./sq.. IREX 40 or IREX HT may be applied by torch. See General Limitation #4.

| | |
|---|---|
| Membrane: | Veral adhered in approved mopping at an application rate of 20-25 lbs./sq. asphalt or by torch. |
| **Note:** | **Refer to manufacturer's specifications for specific application requirements.** |
| Surfacing: | None |
| Maximum Design Pressure: | -52 psf (See General Limitation #9) |

| | |
|---|---|
| **Membrane Type:** | SBS |
| **Deck Type 7:** | Recover |
| **Deck Description:** | Concrete/lightweight concrete/cementitious wood fiber/wood/steel |
| **System Type E:** | Base sheet mechanically fastened. |

**All General and System limitations apply.**

| | |
|---|---|
| Base Sheet: | Parabase, Parabase Plus, Gafglas #75. |
| Fastening: | Fasten base sheet at a 4" side lap 12" o.c. and two rows staggered in the center of the sheet 18" o.c.. See System Limitation #5. |
| Ply Sheet: | Paradiene 20 TG, 20 HVTG, 20 HTTG, or 20 EGTG adhered by torch, or Paradiene 20, 20 FR, 20 HT, 20 HV or 20 EG, adhered with approved mopping asphalt at an application rate of 20-25 lbs./sq. or with PA 311 adhesive. |
| Membrane: | Paradiene 30 FR or 30 HTFR, adhered with approved mopping asphalt or PA 311 adhesive or Paradiene 30 FRTG or 30 HTFRTG adhered by torch. |
| **Note:** | **Refer to manufacturer's specifications for specific application requirements.** |
| Surfacing: | None |
| Maximum Design Pressure: | -52 psf (See General Limitation #9) |

| | |
|---|---|
| **Membrane Type:** | SBS Foil |
| **Deck Type 7:** | Recover |
| **Deck Description:** | Concrete/lightweight concrete/cementitious wood fiber/wood/steel |
| **System Type E:** | Base sheet mechanically fastened. |

**All General and System limitations apply.**

| | |
|---|---|
| Base Sheet: | None. |
| Ply Sheet: | IREX 30, IREX 40 or IREX HT adhered in approved mopping asphalt or by torch. |
| Membrane: | Veral adhered in approved mopping asphalt or by torch. |
| **Note:** | **Refer to manufacturer's specifications for specific application requirements.** |
| Surfacing: | None |
| Maximum Design Pressure: | -67 psf (See General Limitation #9) |

| | |
|---|---|
| **Membrane Type:** | SBS |
| **Deck Type 7:** | Recover |
| **Deck Description:** | Concrete/lightweight concrete/cementitious wood fiber/wood/steel |
| **System Type F:** | Base sheet adhered with approved asphalt. |

**All General and System limitations apply.**

| | |
|---|---|
| Base Sheet: | Paravent, loose laid and lapped a minimum of 1". |
| Ply Sheet: | Paradiene 20 TG, 20 HVTG, 20 HTTG, or 20 EGTG adhered by torch, or Paradiene 20, 20 FR, 20 HT, 20 HV or 20 EG, adhered with approved mopping asphalt at an application rate of 20-25 lbs./sq. or with PA 311 adhesive. |
| Membrane: | Paradiene 30 FR or 30 HTFR, adhered on approved mopping asphalt at an application rate of 20-25 lbs./sq. or with PA 311 adhesive, or Paradiene 30 FRTG or 30 HTFRTG adhered by torch. |
| **Note:** | **Refer to manufacturer's specifications for specific application requirements.** |
| Surfacing: | None |
| Maximum Design Pressure: | -52 psf (See General Limitation #9) |

| | |
|---|---|
| **Membrane Type:** | SBS Foil |
| **Deck Type 7:** | Recover |
| **Deck Description:** | Concrete/lightweight concrete/cementitious wood fiber/wood/steel |
| **System Type F:** | Base sheet adhered with approved asphalt. |

**All General and System limitations apply.**

| | |
|---|---|
| Base Sheet: | Paravent, loose laid and lapped a minimum of 1". |
| Ply Sheet: | IREX 30, IREX 40 or IREX HT adhered in approved mopping asphalt at an application rate of 20-25 lbs./sq. or by torch. |
| Membrane: | Veral adhered in approved mopping asphalt at an application rate of 20-25 lbs./sq. or by torch. |
| **Note:** | **Refer to manufacturer's specifications for specific application requirements.** |
| Surfacing: | None |
| Maximum Design Pressure: | -67 psf (See General Limitation #9) |

## RECOVER SYSTEM LIMITATIONS:

1. All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.

## 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. **(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**