



**BUILDING CODE COMPLIANCE OFFICE (BCCO)  
PRODUCT CONTROL DIVISION**

**MIAMI-DADE COUNTY, FLORIDA  
METRO-DADE FLAGLER BUILDING  
140 WEST FLAGLER STREET, SUITE 1603  
MIAMI, FLORIDA 33130-1563  
(305) 375-2901 FAX (305) 375-2908**

**NOTICE OF ACCEPTANCE (NOA)**

**CertainTeed Corporation  
1400 Union Meeting Road  
Blue Bell, PA 19422**

**SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by 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: CertainTeed Modified Bitumen Roof System over Poured Gypsum Decks**

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of pages 1 through 20.

The submitted documentation was reviewed by Frank Zuloaga, RRC



**NOA No.: 03-0314.02  
Expiration Date: 04/28/08  
Approval Date: 05/22/03  
Page 1 of 20**

## ROOFING SYSTEM APPROVAL

**Category:** Roofing  
**Sub-Category:** Modified  
**Material:** APP, SBS  
**Deck Type:** Poured Gypsum  
**Maximum Design Pressure** -60 psf  
**Fire Classification:** See General Limitation #1

### 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>                                                                                        |
|----------------------------------------------------|--------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| All Weather/Empire Base Sheet                      | 36" x 72'; Roll weight: 86 lbs. (2 squares)            | ASTM D 2626<br>UL Type 15                  | Asphalt coated, organic base sheet.                                                                               |
| Flex-I-Glas™ Base Sheet                            | 36" x 108'; Roll weight: 90 lbs. (3 squares)           | UL Type G2<br>ASTM D 4601, type II         | Modified Bitumen, coated fiberglass base sheet.                                                                   |
| Flex-I-Glas™ FR Base Sheet                         | 39 3/8" x 50'; Roll weight: 90 lbs. (1.5 squares)      | UL Type G2<br>ASTM D 4601, type II         | Modified Bitumen, coated fiberglass base sheet.                                                                   |
| Flintglas® Ply Sheet Type IV or VI                 | 36" x 180'; Roll weight: 40/55 lbs. (5 squares)        | ASTM D 2178<br>Type IV or VI<br>UL Type G1 | Fiberglass, asphalt impregnated ply sheet.                                                                        |
| Flintlastic STA                                    | 39 3/8" x 33'; Roll weight: 90 lbs. (1 square)         | ASTM D 5147                                | Smooth surfaced, APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application.  |
| Flintlastic GTA, GTA-FR or Flintlastic Diamond GTA | 39 3/8" x 33' 3"; Roll weight: 105 lbs. (1 square)     | ASTM D 5147                                | Granule surfaced, APP Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application. |
| Flintlastic GTS                                    | 39 3/8" x 24'9"; Roll weight: 92 lbs. (3/4 square)     | ASTM D 5147                                | Granule surfaced, SBS Modified Bitumen membrane with non-woven polyester mat reinforcement for torch application. |
| Flintlastic GMS/GMS Premium                        | 39 3/8" x 34' 2"; Roll weight: 100/105 lbs. (1 square) | ASTM D 5147                                | Granule surfaced SBS Modified Bitumen membrane with non-woven polyester mat reinforcement for mop application.    |



NOA No.: 03-0314.02  
 Expiration Date: 04/28/08  
 Approval Date: 05/22/03  
 Page 2 of 20

| <u>Product</u>                       | <u>Dimensions</u>                                        | <u>Test Specification</u> | <u>Product Description</u>                                                                                                     |
|--------------------------------------|----------------------------------------------------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Flintlastic FR/FR-P Premium          | 39 3/8" x 34' 2";<br>Roll weight: 105 lbs.<br>(1 square) | ASTM D 5147               | Fire resistant, granule surfaced SBS Modified Bitumen Membrane with non-woven polyester mat reinforcement for mop application. |
| Flintlastic FR-PG                    | 39 3/8" x 34' 2";<br>Roll weight: 105 lbs.<br>(1 square) | ASTM D 5147               | Fire resistant, granule surfaced SBS Modified Bitumen Membrane with a dual carrier reinforcement for mop application.          |
| Flintlastic FR Cap                   | 39 3/8" x 34' 2";<br>Roll weight: 90 lbs.<br>(1 square)  | ASTM D 5147               | Fire resistant, granule surfaced SBS Modified Bitumen membrane with fiberglass mat reinforcement for mop applications.         |
| GlasBase™ Base Sheet                 | 36" x 108'; Roll weight: 69 lbs.<br>(3 squares)          | ASTM D 4601<br>UL Type G2 | Asphalt coated, fiberglass base sheet.                                                                                         |
| PolySMS Base Sheet                   | 39 3/8" x 64' 4";<br>Roll weight: 90 lbs.<br>(2 squares) | ASTM D 5147               | Modified Bitumen, coated polyester base sheet.                                                                                 |
| Yosemite® Mineral Surfaced Cap Sheet | 36" x 36'; Roll weight: 90 lbs.<br>(1 square)            | ASTM D 249<br>UL Type 30  | Mineral Surfaced organic cap and buffer sheet.                                                                                 |
| Stormshield                          | 36" x 75'; Roll weight 75 lbs.<br>(2.25 squares)         | PA 103<br>ASTM D 1979     | Slag surfaced SBS Modified Bitumen sheet with fiberglass reinforcement for peel and stick application.                         |

### APPROVED INSULATIONS:

**TABLE 2**

| <b>Product Name</b>              | <b>Product Description</b>       | <b>Manufacturer<br/>(With Current NOA)</b> |
|----------------------------------|----------------------------------|--------------------------------------------|
| PYROX, White Line                | Polyisocyanurate foam insulation | Apache Products Co.                        |
| ACFoam II                        | Polyisocyanurate foam insulation | Atlas Energy Products                      |
| ISO 95+                          | Polyisocyanurate foam insulation | Firestone                                  |
| High Density Wood Fiberboard     | Wood fiber insulation board      | generic                                    |
| Perlite Insulation               | Perlite insulation board         | generic                                    |
| Dens Deck                        | Water resistant gypsum board     | G-P Gypsum Corp.                           |
| ENRGY-2 & PSI 25, UltraGard Gold | Polyisocyanurate foam insulation | Johns Manville                             |



NOA No.: 03-0314.02  
 Expiration Date: 04/28/08  
 Approval Date: 05/22/03  
 Page 3 of 20

**APPROVED INSULATIONS:**

**TABLE 2**

| <b>Product Name</b>        | <b>Product Description</b>                                   | <b>Manufacturer<br/>(With Current NOA)</b> |
|----------------------------|--------------------------------------------------------------|--------------------------------------------|
| ENRGY-2 Plus               | Polyisocyanurate foam / wood fiberboard composite insulation | Johns Manville                             |
| FiberGlass Roof Insulation | Glass fiber/Mineral fiber insulation                         | Johns Manville                             |
| ISORoc                     | Polyisocyanurate foam / rockwool composite insulation        | Johns Manville                             |
| Paroc Cap Board            | Rockwool insulation                                          | Partek, Inc.                               |
| Multi-Max & FA             | Polyisocyanurate roof insulation                             | RMax, Inc.                                 |

**APPROVED FASTENERS:**

**TABLE 3**

| <b>Fastener Number</b> | <b>Product Name</b>                  | <b>Product Description</b>                                                    | <b>Dimensions</b> | <b>Manufacturer<br/>(With Current NOA)</b> |
|------------------------|--------------------------------------|-------------------------------------------------------------------------------|-------------------|--------------------------------------------|
| 1.                     | FM-30, FM-45, FM-60, FM-90 Fasteners | Base ply fastening systems for lightweight concrete decks.                    |                   | ES Products, Inc.                          |
| 2.                     | Nail-Tite Type 'A', Type 'R'         | Galvanized steel base ply fastener for gypsum decks                           |                   | ES Products, Inc.                          |
| 3.                     | Polymer Gyptec                       | Glass reinforced Nylon insulation fastener for gypsum & CWF decks.            |                   | ITW Buildex Corp.                          |
| 4.                     | Polymer Gyptec Metal Plate           | Galvalume stress plate                                                        | 3" round          | ITW Buildex Corp.                          |
| 5.                     | NTB Magnum                           | Glass reinforced Nylon insulation fastener for gypsum & CWF decks with barbs. |                   | Olympic Mfg. Group                         |
| 6.                     | NTB Plate                            | Galvalume stress plate                                                        | 3" round          | Olympic Mfg. Group                         |
| 7.                     | Lite-Deck                            | Insulation fastener for CWF and Gypsum decks.                                 |                   | Olympic Mfg. Group                         |
| 8.                     | Lite-Deck Plate                      | Galvalume stress plate                                                        | 3" round          | Olympic Mfg. Group                         |
| 9.                     | Powerlite                            | Insulation fastener for CWF and Gypsum decks.                                 |                   | Powers Fasteners, Inc.                     |
| 10.                    | Powerlite Plates                     | Galvalume AZ55 steel plate                                                    | 3" round          | Powers Fasteners, Inc.                     |
| 11.                    | Powerlite Lap Plates                 | Galvalume AZ55 steel plate                                                    | 2" round          | Powers Fasteners, Inc.                     |
| 12.                    | Base-Lok Fastener                    | Nylon base sheet fastener.                                                    |                   | Simplex Nails & Fasteners                  |



**NOA No.: 03-0314.02**  
**Expiration Date: 04/28/08**  
**Approval Date: 05/22/03**  
**Page 4 of 20**

**EVIDENCE SUBMITTED:**

| <u>Test Agency/Identifier</u>   | <u>Name</u>                                  | <u>Report</u>  | <u>Date</u> |
|---------------------------------|----------------------------------------------|----------------|-------------|
| Applied Research Laboratories   | Physical Properties                          | 28013          | 06/02/87    |
| Factory Mutual Research Corp.   | Current Insulation<br>Fastening Requirements | FMRC 1994      | 01/01/95    |
| Factory Mutual Research Corp.   | FMRC 4470                                    | J.I. #3Y8A1.AM | 03/23/96    |
| Underwriters Laboratories, Inc. | Fire Classification<br>Compliance            | R11656         | 07/13/87    |
| United States Testing Company   | ASTM D 5147                                  | 97457-4        | 06/03/88    |
| United States Testing Company   | ASTM D 5147                                  | 97-457-2R      | 12/02/87    |



**APPROVED ASSEMBLIES**

**Membrane Type:** APP MODIFIED  
**Deck Type 6I:** Poured Gypsum, Insulated, New Construction  
**Deck Description:** Poured Gypsum Concrete  
**System Type A:** Anchor sheet mechanically fastened; all insulation layers adhered with approved asphalt.

**All General and System limitations apply.**

One or more layers of any of the following insulations:

| <b>Base Insulation Layer</b>                                              | <b>Insulation Fasteners</b> | <b>Fastener Density/ft<sup>2</sup></b> |
|---------------------------------------------------------------------------|-----------------------------|----------------------------------------|
| <b>Pyrox<br/>Minimum 1.3" thick</b>                                       | N/A                         | N/A                                    |
| <b>AC-Foam II, ENRGY 2, PSI-25, UltraGard Gold<br/>Minimum 1.5" thick</b> | N/A                         | N/A                                    |
| <b>High Density Wood Fiber<br/>Minimum ½" thick</b>                       | N/A                         | N/A                                    |
| <b>Paroc, Perlite<br/>Minimum ¾" thick</b>                                | N/A                         | N/A                                    |
| <b>Fiberglas<br/>Minimum 15/16" thick</b>                                 | N/A                         | N/A                                    |
| <b>Dens-Deck<br/>Minimum ¼" thick</b>                                     | N/A                         | N/A                                    |
| <b>(Optional) Top Insulation Layer</b>                                    | <b>Insulation Fasteners</b> | <b>Fastener Density/ft<sup>2</sup></b> |
| <b>High Density Wood Fiber<br/>Minimum ½" thick</b>                       | N/A                         | N/A                                    |
| <b>Perlite<br/>Minimum 1" thick</b>                                       | N/A                         | N/A                                    |
| <b>Paroc<br/>Minimum ¾" thick</b>                                         | N/A                         | N/A                                    |
| <b>Dens Deck<br/>Minimum ¼" thick</b>                                     | N/A                         | N/A                                    |

**Note:** All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. 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.



- Anchor Sheet: One ply of GS Glas Base, GS Flex-I Glas Base, Flex-I Glas FR Base or Poly SMS mechanically attached to the deck as detailed below:
- Fastening #1: (Poly SMS only) Nail-Tite Type A or Type R with minimum 1-5/8" diameter head or Simplex Base-Lok fasteners with minimum 1-5/8" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c.  
**(Maximum Design Pressure –52.5 psf, See General Limitation #9.)**
- Fastening #2: Nail-Tite Type A or Type R with FM-30 discs or FM-90 Base Ply Fasteners or Simplex Base-Lok fasteners with minimum 3" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c.  
**(Maximum Design Pressure –52.5 psf, See General Limitation #9.)**
- Fastening #3: Nail-Tite Type A or Type R with FM-30 discs or FM-90 Base Ply Fasteners or Simplex Base-Lok fasteners with minimum 3" diameter plate spaced 7½" o.c. in min. 2" side lap and one row in center of the sheet, 7½" o.c.  
**(Maximum Design Pressure –45 psf, See General Limitation #9.)**
- Fastening #4: Nail-Tite Type A or Type R with FM-30 discs or FM-90 Base Ply Fasteners or Simplex Base-Lok fasteners with minimum 3" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 12" o.c.  
**(Maximum Design Pressure –60 psf, See General Limitation #9.)**
- Base Sheet: One ply of GS Glas Base, GS Flex-I Glas Base, Flex-I Glas FR Base, GS Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Ply Sheet: (Optional) One ply of GS Glas Base, GS Flex-I-Glas Base, Flex-I-Glas FR Base, GS PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Membrane: Flintlastic STA, Flintlastic Diamond GTA, Flintlastic GTA or GTA-FR torch adhered to base or ply sheet.
- Surfacing: (Optional) Install one of the following:
1. Flood coat of hot asphalt with an application rate of 60 lbs./sq. ± 20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively.
  2. Karnak 97, APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq.
- Maximum Design Pressure: See fastening requirements above



**Membrane Type:** SBS MODIFIED  
**Deck Type 6I:** Poured Gypsum, Insulated, New Construction  
**Deck Description:** Poured Gypsum Concrete  
**System Type A:** Anchor sheet mechanically fastened; all insulation layers adhered with approved asphalt.

**All General and System limitations apply.**

One or more layers of any of the following insulations:

| <b>Base Insulation Layer</b>                                             | <b>Insulation Fasteners</b> | <b>Fastener Density/ft<sup>2</sup></b> |
|--------------------------------------------------------------------------|-----------------------------|----------------------------------------|
| <b>Pyrox</b><br>Minimum 1.3" thick                                       | N/A                         | N/A                                    |
| <b>AC-Foam II, ENRGY 2, PSI-25, UltraGard Gold</b><br>Minimum 1.5" thick | N/A                         | N/A                                    |
| <b>High Density Wood Fiber</b><br>Minimum ½" thick                       | N/A                         | N/A                                    |
| <b>Paroc, Perlite</b><br>Minimum ¾" thick                                | N/A                         | N/A                                    |
| <b>Fiberglas</b><br>Minimum 15/16" thick                                 | N/A                         | N/A                                    |
| <b>Dens-Deck</b><br>Minimum ¼" thick                                     | N/A                         | N/A                                    |
| <b>(Optional) Top Insulation Layer</b>                                   | <b>Insulation Fasteners</b> | <b>Fastener Density/ft<sup>2</sup></b> |
| <b>High Density Wood Fiber</b><br>Minimum ½" thick                       | N/A                         | N/A                                    |
| <b>Perlite, Paroc</b><br>Minimum ¾" thick                                | N/A                         | N/A                                    |
| <b>Dens Deck</b><br>Minimum ¼" thick                                     | N/A                         | N/A                                    |

**Note:** All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. 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.



- Anchor Sheet: One ply of GS Glas Base, GS Flex-I Glas Base, Flex-I Glas FR Base or Poly SMS mechanically attached to the deck as detailed below.
- Fastening #1: (Poly SMS only) Nail-Tite Type A or Type R with minimum 1-5/8" diameter head or Simplex Base-Lok fasteners with minimum 1-5/8" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c.  
**(Maximum Design Pressure –52.5 psf, See General Limitation #9.)**
- Fastening #2: Nail-Tite Type A or Type R with FM-30 discs or FM-90 Base Ply Fasteners or Simplex Base-Lok fasteners with minimum 3" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c.  
**(Maximum Design Pressure –52.5 psf, See General Limitation #9.)**
- Fastening #3: Nail-Tite Type A or Type R with FM-30 discs or FM-90 Base Ply Fasteners or Simplex Base-Lok fasteners with minimum 3" diameter plate spaced 7½" o.c. in min. 2" side lap and one row in center of the sheet, 7½" o.c.  
**(Maximum Design Pressure –45 psf, See General Limitation #9.)**
- Fastening #4: Nail-Tite Type A or Type R with FM-30 discs or FM-90 Base Ply Fasteners or Simplex Base-Lok fasteners with minimum 3" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 12" o.c.  
**(Maximum Design Pressure –60 psf, See General Limitation #9.)**
- Base Sheet: One ply of GS Glas Base, GS Flex-I Glas Base, Flex-I Glas FR Base, GS Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Ply Sheet: (Optional) One ply of GS Glas Base, GS Flex-I-Glas Base, Flex-I-Glas FR Base, GS PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Membrane: One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic FR-PG or Flintlastic FR Cap adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic GTS torch adhered to base or ply sheet.
- Surfacing: (Optional) Install one of the following:
  1. Flood coat of hot asphalt with an application rate of 60 lbs./sq. ± 20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively.
  2. Karnak 97, APOC 212 Fibrated Aluminum or Grundy AL MB at 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq.
- Maximum Design Pressure: See fastening requirements above



**Membrane Type:** APP MODIFIED  
**Deck Type 6I:** Poured Gypsum, Insulated, New Construction  
**Deck Description:** Poured gypsum concrete  
**System Type B:** Base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt.

**All General and System limitations apply.**

One or more layers of any of the following insulations:

| <b>Base Insulation Layer</b>                                       | <b>Insulation Fasteners</b> | <b>Fastener Density/ft<sup>2</sup></b> |
|--------------------------------------------------------------------|-----------------------------|----------------------------------------|
| <b>Pyrox</b><br>Minimum 1.3" thick                                 | 3, 5, 7 or 9                | 1:3 ft <sup>2</sup>                    |
| <b>AC-Foam II, UltraGard Gold</b><br>Minimum 1.3" thick            | 7 or 9                      | 1:4 ft <sup>2</sup>                    |
| <b>ENRGY-2, PSI-25</b><br>Minimum 1.4" thick                       | 5                           | 1:3 ft <sup>2</sup>                    |
| Minimum 2" thick                                                   | 3, 5, 7 or 9                | 1:4 ft <sup>2</sup>                    |
| <b>High Density Wood Fiber</b><br>Minimum ½" thick                 | 3, 5, 7 or 9                | 1:2 ft <sup>2</sup>                    |
| <b>Perlite</b><br>Minimum ¾" thick                                 | 3, 5, 7 or 9                | 1:2 ft <sup>2</sup>                    |
| <b>Fiberglas</b><br>Minimum 1 <sup>5</sup> / <sub>16</sub> " thick | 3, 5, 7 or 9                | 1:2.67 ft <sup>2</sup>                 |

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

| <b>(Optional) Top Insulation Layer</b>               | <b>Insulation Fasteners</b> | <b>Fastener Density/ft<sup>2</sup></b> |
|------------------------------------------------------|-----------------------------|----------------------------------------|
| Any of the insulations listed for Base Layer, above. |                             |                                        |
| <b>High Density Wood Fiber</b><br>Minimum ½" thick   | N/A                         | N/A                                    |
| <b>Paroc, Perlite</b><br>Minimum ¾" thick            | N/A                         | N/A                                    |
| <b>Dens Deck</b><br>Minimum ¼" thick                 | N/A                         | N/A                                    |

**Note:** Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.



- Base Sheet: One ply of GS Glas Base, GS Flex-I Glas Base, Flex-I Glas FR Base, GS Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Ply Sheet: (Optional) One ply of GS Glas Base, GS Flex-I-Glas Base, Flex-I-Glas FR Base, GS PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Membrane: Flintlastic STA, Flintlastic Diamond GTA, Flintlastic GTA or GTA-FR torch adhered to base or ply sheet.
- Surfacing: (Optional) Install one of the following:  
1. Flood coat of hot asphalt with an application rate of 60 lbs./sq.  $\pm$  20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively.  
2. Karnak 97, APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq.
- Maximum Design Pressure: -45 psf (See General Limitation #9)



**Membrane Type:** SBS MODIFIED  
**Deck Type 6I:** Poured Gypsum, Insulated, New Construction  
**Deck Description:** Poured Gypsum Concrete  
**System Type B:** Base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt.

**All General and System limitations apply.**

One or more layers of any of the following insulations:

| <b>Base Insulation Layer</b>                                       | <b>Insulation Fasteners</b> | <b>Fastener Density/ft<sup>2</sup></b> |
|--------------------------------------------------------------------|-----------------------------|----------------------------------------|
| <b>Pyrox</b><br>Minimum 1.3" thick                                 | 3, 5, 7 or 9                | 1:3 ft <sup>2</sup>                    |
| <b>AC-Foam II, UltraGard Gold</b><br>Minimum 1.3" thick            | 7 or 9                      | 1:4 ft <sup>2</sup>                    |
| <b>ENRGY-2, PSI-25</b><br>Minimum 1.4" thick                       | 5                           | 1:3 ft <sup>2</sup>                    |
| Minimum 2" thick                                                   | 3, 5, 7 or 9                | 1:4 ft <sup>2</sup>                    |
| <b>High Density Wood Fiber</b><br>Minimum ½" thick                 | 3, 5, 7 or 9                | 1:2 ft <sup>2</sup>                    |
| <b>Perlite</b><br>Minimum ¾" thick                                 | 3, 5, 7 or 9                | 1:2 ft <sup>2</sup>                    |
| <b>Fiberglas</b><br>Minimum 1 <sup>5</sup> / <sub>16</sub> " thick | 3, 5, 7 or 9                | 1:2.67 ft <sup>2</sup>                 |

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

| <b>(Optional) Top Insulation Layer</b>                      | <b>Insulation Fasteners</b> | <b>Fastener Density/ft<sup>2</sup></b> |
|-------------------------------------------------------------|-----------------------------|----------------------------------------|
| <b>Any of the insulations listed for Base Layer, above.</b> |                             |                                        |
| <b>High Density Wood Fiber</b><br>Minimum ½" thick          | N/A                         | N/A                                    |
| <b>Paroc, Perlite</b><br>Minimum ¾" thick                   | N/A                         | N/A                                    |
| <b>Dens Deck</b><br>Minimum ¼" thick                        | N/A                         | N/A                                    |

**Note: Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup>. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.**



- Base Sheet:** One ply of GS Glas Base, GS Flex-I Glas Base, Flex-I Glas FR Base, GS Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Ply Sheet:** (Optional) One ply of GS Glas Base, GS Flex-I-Glas Base, Flex-I-Glas FR Base, GS PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Membrane:** One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic FR-PG or Flintlastic FR Cap adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic GTS torch adhered to base or ply sheet.
- Surfacing:** (Optional) Install one of the following:
1. Flood coat of hot asphalt with an application rate of 60 lbs./sq.  $\pm$  20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively.
  2. Karnak 97, APOC 212 Fibrated Aluminum or Grundy AL MB at 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq.
- Maximum Design Pressure:** -45 psf (See General Limitation #9)



**Membrane Type:** APP MODIFIED  
**Deck Type 6I:** Poured Gypsum, Insulated, New Construction  
**Deck Description:** Poured gypsum concrete  
**System Type C:** All layers of insulation simultaneously fastened.

**All General and System limitations apply.**

One or more layers of any of the following insulations:

| <b>(Optional) Base Insulation Layer</b>                                                                | <b>Insulation Fasteners</b> | <b>Fastener Density/ft<sup>2</sup></b> |
|--------------------------------------------------------------------------------------------------------|-----------------------------|----------------------------------------|
| <b>Pyrox</b><br>Minimum 1.3" thick                                                                     | N/A                         | N/A                                    |
| <b>ACFoam-II, ENRGY-2, PSI-25, UltraGard Gold, UltraGard Premier, Isotherm R</b><br>Minimum 1.5" thick | N/A                         | N/A                                    |
| <b>High Density Wood Fiber</b><br>Minimum 1/2" thick                                                   | N/A                         | N/A                                    |
| <b>Perlite</b><br>Minimum 3/4" thick                                                                   | N/A                         | N/A                                    |
| <b>Fiberglas</b><br>Minimum 15/16" thick                                                               | N/A                         | N/A                                    |
| <b>Dens-Deck</b><br>Minimum 1/4" thick                                                                 | N/A                         | N/A                                    |

**Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

| <b>Top Insulation Layer</b>                          | <b>Insulation Fasteners</b> | <b>Fastener Density/ft<sup>2</sup></b> |
|------------------------------------------------------|-----------------------------|----------------------------------------|
| <b>High Density Wood Fiber</b><br>Minimum 1/2" thick | 3, 5, 7 or 9                | 1:2 ft <sup>2</sup>                    |
| <b>Perlite</b><br>Minimum 3/4" thick                 | 3, 5, 7 or 9                | 1:2 ft <sup>2</sup>                    |
| <b>Dens Deck</b><br>Minimum 1/4" thick               | 3, 5, 7 or 9                | 1:1.77 ft <sup>2</sup>                 |

**Base Sheet:** One ply of GS Glas Base, GS Flex-I Glas Base, Flex-I Glas FR Base, GS Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Ply Sheet:** (Optional) One ply of GS Glas Base, GS Flex-I-Glas Base, Flex-I-Glas FR Base, GS PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.



Membrane: Flintlastic STA, Flintlastic Diamond GTA, Flintlastic GTA or GTA-FR torch adhered to base or ply sheet.

Surfacing: (Optional) Install one of the following:

1. Flood coat of hot asphalt with an application rate of 60 lbs./sq.  $\pm$  20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively.
2. Karnak 97, APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq.

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



**Membrane Type:** SBS MODIFIED  
**Deck Type 6I:** Poured Gypsum, Insulated, New Construction  
**Deck Description:** Poured gypsum concrete  
**System Type C:** All layers of insulation simultaneously fastened.

**All General and System limitations apply.**

One or more layers of any of the following insulations:

| <b>(Optional) Base Insulation Layer</b>                                                                | <b>Insulation Fasteners</b> | <b>Fastener Density/ft<sup>2</sup></b> |
|--------------------------------------------------------------------------------------------------------|-----------------------------|----------------------------------------|
| <b>Pyrox</b><br>Minimum 1.3" thick                                                                     | N/A                         | N/A                                    |
| <b>ACFoam-II, ENRGY-2, PSI-25, UltraGard Gold, UltraGard Premier, Isotherm R</b><br>Minimum 1.5" thick | N/A                         | N/A                                    |
| <b>High Density Wood Fiber</b><br>Minimum 1/2" thick                                                   | N/A                         | N/A                                    |
| <b>Perlite</b><br>Minimum 3/4" thick                                                                   | N/A                         | N/A                                    |
| <b>Fiberglas</b><br>Minimum 15/16" thick                                                               | N/A                         | N/A                                    |
| <b>Dens-Deck</b><br>Minimum 1/4" thick                                                                 | N/A                         | N/A                                    |

**Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

| <b>Top Insulation Layer</b>                          | <b>Insulation Fasteners</b> | <b>Fastener Density/ft<sup>2</sup></b> |
|------------------------------------------------------|-----------------------------|----------------------------------------|
| <b>High Density Wood Fiber</b><br>Minimum 1/2" thick | 3, 5, 7 or 9                | 1:2 ft <sup>2</sup>                    |
| <b>Perlite</b><br>Minimum 3/4" thick                 | 3, 5, 7 or 9                | 1:2 ft <sup>2</sup>                    |
| <b>Dens Deck</b><br>Minimum 1/4" thick               | 3, 5, 7 or 9                | 1:1.77 ft <sup>2</sup>                 |

**Base Sheet:** One ply of GS Glas Base, GS Flex-I Glas Base, Flex-I Glas FR Base, GS Poly SMS, Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the insulated substrate with approved mopping asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Ply Sheet:** (Optional) One ply of GS Glas Base, GS Flex-I-Glas Base, Flex-I-Glas FR Base, GS PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.



Membrane:

One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic FR-PG or Flintlastic FR Cap adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic GTS torch adhered to base or ply sheet.

Surfacing:

(Optional) Install one of the following:

1. Flood coat of hot asphalt with an application rate of 60 lbs./sq.  $\pm$  20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively.
2. Karnak 97, APOC 212 Fibrated Aluminum or Grundy AL MB at 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq.

Maximum Design  
Pressure:

-45 psf (See General Limitation #9)



**Membrane Type:** APP MODIFIED  
**Deck Type 6:** Poured Gypsum, Non-insulated, New Construction  
**Deck Description:** Poured gypsum concrete  
**System Type E:** Base sheet mechanically fastened.

**All General and System limitations apply.**

**Base Sheet:** One ply of GS Glas Base, GS Flex-I Glas Base, Flex-I Glas FR Base or GS Poly SMS Base mechanically fastened to the deck as detailed below.

**Fastening #1:** (Poly SMS only) Nail-Tite Type A or Type R with minimum 1-5/8" diameter head or Simplex Tube-Lok fasteners with minimum 1-5/8" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c.  
*(Maximum Design Pressure –52.5 psf, See General Limitation #9.)*

**Fastening #2:** Nail-Tite Type A or Type R with FM-30 discs or FM-90 Base Ply Fasteners or Simplex Tube-Lok fasteners with minimum 3" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c.  
*(Maximum Design Pressure –52.5 psf, See General Limitation #9.)*

**Fastening #3:** Nail-Tite Type A or Type R with FM-30 discs or FM-90 Base Ply Fasteners or Simplex Tube-Lok fasteners with minimum 3" diameter plate spaced 7½" o.c. in min. 2" side lap and one row in center of the sheet, 7½" o.c.  
*(Maximum Design Pressure –45 psf, See General Limitation #9.)*

**Fastening #4:** Nail-Tite Type A or Type R with FM-30 discs or FM-90 Base Ply Fasteners or Simplex Tube-Lok fasteners with minimum 3" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 12" o.c.  
*(Maximum Design Pressure –60 psf, See General Limitation #9.)*

**Ply Sheet:** (Optional) One ply of GS Glas Base, GS Flex-I-Glas Base, Flex-I-Glas FR Base, GS PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Membrane:** Flintlastic STA, Flintlastic Diamond GTA, Flintlastic GTA or GTA-FR torch adhered to base or ply sheet.

**Surfacing:** (Optional) Install one of the following:  
1. Flood coat of hot asphalt with an application rate of 60 lbs./sq. ± 20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively.  
2. Karnak 97, APOC 212 Fibrated Aluminum, Henry 520 Aluminum or Grundy AL MB at an application rate of 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq.

**Maximum Design Pressure:** See fastening requirements above



**Membrane Type:** SBS MODIFIED  
**Deck Type 6:** Poured Gypsum, Non-Insulated, New Construction  
**Deck Description:** Poured Gypsum Concrete  
**System Type E:** Base sheet mechanically fastened

**All General and System limitations apply.**

**Base Sheet:** One ply of GS Glas Base, GS Flex-I Glas Base, Flex-I Glas FR Base or Poly SMS mechanically attached to the deck as detailed below:

**Fastening #1:** (Poly SMS only) Nail-Tite Type A or Type R with minimum 1-5/8" diameter head or Simplex Base-Lok fasteners with minimum 1-5/8" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c.  
*(Maximum Design Pressure -52.5 psf, See General Limitation #9.)*

**Fastening #2:** Nail-Tite Type A or Type R with FM-30 discs or FM-90 Base Ply Fasteners or Simplex Base-Lok fasteners with minimum 3" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 18" o.c.  
*(Maximum Design Pressure -52.5 psf, See General Limitation #9.)*

**Fastening #3:** Nail-Tite Type A or Type R with FM-30 discs or FM-90 Base Ply Fasteners or Simplex Base-Lok fasteners with minimum 3" diameter plate spaced 7½" o.c. in min. 2" side lap and one row in center of the sheet, 7½" o.c.  
*(Maximum Design Pressure -45 psf, See General Limitation #9.)*

**Fastening #4:** Nail-Tite Type A or Type R with FM-30 discs or FM-90 Base Ply Fasteners or Simplex Base-Lok fasteners with minimum 3" diameter plate spaced 9" o.c. in min. 2" side lap and two staggered rows in center of the sheet, 12" o.c.  
*(Maximum Design Pressure -60 psf, See General Limitation #9.)*

**Ply Sheet:** (Optional) One ply of GS Glas Base, GS Flex-I-Glas Base, Flex-I-Glas FR Base, GS PolySMS or one or more plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) adhered to the base sheet in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

**Membrane:** One ply of Flintlastic GMS, Flintlastic Premium GMS, Flintlastic FR-P, Flintlastic Premium FR-P, Flintlastic FR-PG or Flintlastic FR Cap adhered to base or ply sheet with approved mopping asphalt applied within the EVT range and at a rate of 20 to 40 lbs./sq. or Flintlastic GTS torch adhered to base or ply sheet.

**Surfacing:** (Optional) Install one of the following:

1. Flood coat of hot asphalt with an application rate of 60 lbs./sq. ± 20%; plus gravel or slag with an application rate of 400 lbs./sq. & 300 lbs./sq., respectively.
2. Karnak 97, APOC 212 Fibrated Aluminum or Grundy AL MB at 1½ gal./sq., or APOC Sunbrite at an application rate of 3 gal./sq.

**Maximum Design Pressure:** See fastening requirements above



## GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**

END OF THIS ACCEPTANCE



NOA No.: 03-0314.02  
Expiration Date: 04/28/08  
Approval Date: 05/22/03  
Page 20 of 20