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)

Mule-Hide Products Co., Inc.
1195 Prince Hall Dr.
Beloit, WI 53511

SCOPE:

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

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

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

DESCRIPTION: Self Adhering Modified Bitumen Roof System Over Steel Decks

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

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

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

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

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

This consists of pages 1 through 14.
The submitted documentation was reviewed by Frank Zuloaga, RRC

ROOFING ASSEMBLY APPROVAL

Category:	Roofing
Sub-Category:	Modified Bitumen
Materials	SBS/APP/TPO
Deck Type:	Steel
Maximum Design Pressure	-112.5 psf
Fire Classification:	See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
SA-SBS Cap Sheet (FR)	32' 6" x 3' 3-3/8"	ASTM D 6164	Self-adhered, polyester reinforced, SBS modified bitumen membrane with a self-adhering back face and a granule top surface.
SA-SBS Cap Sheet	32' 6" x 3' 3-3/8"	ASTM D 6164	Self-adhered, polyester reinforced, SBS modified bitumen membrane with a self-adhering back face and a granule top surface.
SA-APP Cap Sheet (G) FR)	32' 6" x 3' 3-3/8"	ASTM D 6164	Self-adhered, polyester reinforced, APP modified bitumen membrane with a self-adhering back face and a granule top surface.
SA-APP Cap Sheet (G)	32' 6" x 3' 3-3/8"	ASTM D 6164	Self-adhered, polyester reinforced, APP modified bitumen membrane with a self-adhering back face and a granule top surface.
SA-SBS Cap Sheet (S)	32' 6" x 3' 3-3/8"	ASTM D 6164	Self-adhered, polyester reinforced, APP modified bitumen membrane with a self-adhering back face and a smooth or sanded top surface.
SA BaseSheet (FR)	32' 6" x 3' 3-3/8"	ASTM D 6163	Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a smooth top surface.
SA BaseSheet	32' 6" x 3' 3-3/8"	ASTM D 6163	Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a smooth top surface.
Elastoflex SA-V (G) FR	32' 6" x 3' 3-3/8"	ASTM D 6163	Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a granule top surface.
Elastoflex SA-V (G)	32' 6" x 3' 3-3/8"	ASTM D 6163	Self-adhered, fiberglass reinforced, SBS modified bitumen membrane with a self-adhering back face and a granule top surface.
Nail Base	65' 2" x 3' 3-3/8"	ASTM D 4601	SBS modified asphalt coated fiberglass reinforced base sheet.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
Poly Iso 2	Polyisocyanurate foam insulation	Mule-Hide Co., Inc.
Polytherm Composite	Polyisocyanurate/perlite composite insulation.	Polyglass USA, Inc.
ACFoam II	Polyisocyanurate foam insulation	Atlas Energy Products
ConPearl	Expanded perlite mineral fiber	Conglas
Esgard Fiberboard	Wood fiber board	EMCO Ltd.
GAF Permalite	Expanded mineral fiber	GAF Mat. Corp.
GAF Fiberboard	Wood fiber board	GAF Mat. Corp.
GAF High Density Wood Fiberboard	High Density Wood Fiberboard	GAF Mat. Corp.
Wood Fiberboard	Wood fiber insulation board	Generic
High Density Wood Fiberboard	Wood fiber insulation board	Generic
Perlite Insulation	Perlite insulation board	Generic
Dens-Deck Prime	Gypsum insulation board	Georgia-Pacific
Armor Board Regular Fiberboard	Wood fiber board	Honeywell Int'l. Inc.
Armor Board High Density Wood Fiberboard	Wood fiber insulation board	Honeywell Int'l. Inc.
Armor-R Glas (Standard & Wide Flute)	Glass fiber insulation board	Honeywell Int'l. Inc.
Hubert Fiberboard	Wood fiber board	Huebert Fiberboard, Inc.
H-Sheld	Polyisocyanurate foam insulation	Hunter Panels, LLC
H-Sheld P	Polyisocyanurate/perlite composite insulation	Hunter Panels, LLC
ENRGY-2	Polyisocyanurate foam insulation	Johns Manville Corp.
Fesco Board	Expanded mineral fiber	Johns Manville Corp.
Fiber Glass (Standard & Wide Flute)	Glass fiber insulation board	Johns Manville Corp.
Kop-R Wood Fiber	Polyisocyanurate foam insulation	Koppers Industries, Inc.
Structodek, Structodek FS	Wood fiber board	Masonitec
Standard or Wide Flute Fiberglas Roof Insulation	Glass fiber insulation board	Owens-Corning
Multi-Max FA	Polyisocyanurate foam insulation	Rmax, Inc.
Thermaroof Composite	Polyisocyanurate/perlite composite insulation.	Rmax, Inc.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
Fiberbond	Type-x Gypsum	United States Gypsum Co.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Polygrip Fasteners #12, #14 & #15	Insulation fastener for wood, steel and concrete decks		Polyglass USA, Inc.
2.	Polygrip Hex Plate	Galvalume hex stress plate.	2 7/8" x 3-¼"	Polyglass USA, Inc.
3.	Polygrip 2-½" Membrane Plate	Galvalume barbed stress plate	2.5" round	Polyglass USA, Inc.
4.	Dekfast Fasteners #12, #14 & #15	Insulation fastener for wood, steel and concrete decks		Construction Fasteners Inc.
5.	HWH Dekfast Fasteners	Insulation fastener for wood, and steel decks		Construction Fasteners Inc.
6.	Omega Fasteners	Insulation fastener for wood, and steel decks		Construction Fasteners Inc.
7.	Dekfast Hex Plate	Galvalume hex stress plate.	2 7/8" x 3 1/4"	Construction Fasteners Inc.
8.	Dekfast Autoset Plate	Galvalume stress plate.	2-7/8" x 3-¼"	Construction Fasteners Inc.
9.	Dekfast 2 ½" HS membrane Plate	Galvalume stress plate.	2.5" round	Construction Fasteners Inc.
10.	#14 & #15 Roofgrip Fasteners	Insulation fastener for wood, steel and concrete decks.		ITW Buildex Corp.
11.	Metal Plate	Galvalume stress plate.	3" round 3" square	ITW Buildex Corp.
12.	Flat Bottom Metal Plate	Galvalume stress plate.	3" square	ITW Buildex Corp.
13.	2-$^3/_8$" Round Barbed Seam Plates	Galvalume stress plate.	2-$^3/_8$" round	ITW Buildex Corp.
14.	#14 HD Insul-Fixx Fastener	Insulation fastener for wood, steel and concrete decks		SFS Stadler, Inc.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
15.	Extra Load Fasteners	Insulation fastener for concrete decks		SFS Stadler, Inc.
16.	Insul-Fixx S Plate	Galvalume AZ50 steel plate	3" round	SFS Stadler, Inc.
17.	IF-2.375 Plates	Galvalume AZ55 steel plate	2.37" round	SFS Stadler, Inc.
18.	IF/IFT-70x70 Plates	Galvalume steel plate	2.75" square	SFS Stadler, Inc.
19.	Tru-Fast HD	Insulation fastener for wood, steel and concrete decks		The Tru-Fast Corp.
20.	Tru-Fast Plates	3" round galvalume AZ55 steel plate	3" round	The Tru-Fast Corp.
21.	Tru-Fast MP-3	Round galvalume AZ50 steel plate	3.23 round 3" round	The Tru-Fast Corp.
22.	Mule-Hide Fasteners DP, HD	Insulation and membrane fasteners for wood, steel and concrete decks		Mule-Hide Products Co., Inc.
23.	Mule-Hide Insulation Plates	Galvalume stress plates	3" round 3.23" round	Mule-Hide Products Co., Inc.

EVIDENCE SUBMITTED:

Test Agency/Identifier	Report No.	Date
Factory Mutual Research Corporation	J.I. 2W7A7.AM	08.04.94
	J.I. 3001334	02.15.00
	J.I. 3000857	01.12.00
	J.I. 3004091	01.12.00
Exterior Research & Design, LLC.	#11752.09.99-1	02.08.00
	#11757.12.00-1	12.01.00
	#11757.04.01-1	04.27.01

APPROVED ASSEMBLIES:

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. steel

System Type B(1): Base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
H-Shield, H-Shield P, Poly Iso 2 or Polytherm Composite P Minimum 1.5" thick	**1, 4, 5, 6, 19 or 22**	**1:4 ft^2**

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

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
High Density wood fiberboard (coated six-sides only) Minimum 1/2" 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^2. 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. Composite insulation boards with the perlite side facing up shall have a layer of Nail Base adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft^2.

Base Sheet: (Optional if using SA-Base Sheet self-adhered to the approved top insulation). One ply of Nail Base adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One or more plies of SA Base Sheet or SA Base Sheet (FR) self-adhered to the coverboad (top insulation layer) or SA Base Sheet or SA Base Sheet (FR) self adhered to a listed polyisocyanurate layer (no coverboard).

Membrane: One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet (FR), SA-APP Cap Sheet (S), SA-APP Cap Sheet (G), SA-APP Cap Sheet (G) (FR), Elastoflex SA V (G) FR or Elastoflex SA V (G) self-adhered.

Surfacing:	(Optional) Install one of the following to obtain required fire classification. 1. Gravel or slag at 400 lbs/sq or 300 lbs/sq, respectively, in a flood coat of approved asphalt at 60 lbs/sq. 2. Karnak 97 Fibrated Aluminum Asphalt Roof Coating or Asbestos Free Aluminum Roof Coating at 1½ gal/sq. 3. Kokem Products Sunguard Acrylic Roof Coating at 1 gal/sq. 4. Monsey Endure Aluminum Roof Coating, Weather Check or Pro-Grade Aluminum Roof Coating at 1½ gal/sq. 5. Grundy al MB Aluminum Roof Coating at 1-2 gal/sq. 6. Fields F350 Heat Shield Aluminum Coating or F630 Heat Shield Fibered Aluminum Coating at 1½ gal/sq.
Maximum Design Pressure:	-45 psf; (See general limitation #9.)

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. Type B, Grade C steel deck

System Type B(2): Base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt.

All General and System limitations apply.

One or more layers of any of the following insulations:

Base Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
ENRGY-2, Poly ISO 2, Minimum 1.5" thick	**4 , 19 0r 22**	**1:1.33 ft^2**

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

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
High Density Wood Fiberboard (coated six-sides only) 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. Composite insulation with perlite side facing up shall have a layer of Nail Base adhered with a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Base Sheet: (Optional if using SA Base Sheet self-adhered to listed top insulation layer) One ply of Nail Base adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional if using base sheet in hot asphalt) One or more plies of SA Base Sheet or SA Base Sheet (FR) self-adhered to the coverboard (top insulation layer).

Membrane: One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet (FR), SA-APP Cap Sheet (S), SA-APP Cap Sheet (G), SA-APP Cap Sheet (G) (FR), Elastoflex SA V (G) FR or Elastoflex SA V (G) self-adhered.

Surfacing:	(Optional) Install one of the following to obtain required fire classification. 1. Gravel or slag at 400 lbs/sq or 300 lbs/sq, respectively, in a flood coat of approved asphalt at 60 lbs/sq. 2. Karnak 97 Fibrated Aluminum Asphalt Roof Coating or Asbestos Free Aluminum Roof Coating at 1½ gal/sq. 3. Kokem Products Sunguard Acrylic Roof Coating at 1 gal/sq. 4. Monsey Endure Aluminum Roof Coating, Weather Check or Pro-Grade Aluminum Roof Coating at 1½ gal/sq. 5. Grundy al MB Aluminum Roof Coating at 1-2 gal/sq. 6. Fields F350 Heat Shield Aluminum Coating or F630 Heat Shield Fibered Aluminum Coating at 1½ gal/sq.
Maximum Design Pressure:	-90 psf; (See General Limitation #7.)

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. Type B, Grade C steel deck

System Type C(1): All layers of insulation are mechanically attached to roof deck. Membrane is subsequently adhered to insulation.

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, Poly Iso 2 Minimum 1.5" thick	**4, 14, 19 or 22**	**1:1.33 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: None

Ply Sheet: One or more plies of SA Base Sheet or SA Base Sheet (FR) self adhered.

Membrane: One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet (FR), SA-APP Cap Sheet (S), SA-APP Cap Sheet (G), SA-APP Cap Sheet (G) (FR), Elastoflex SA V (G) FR or Elastoflex SA V (G) self-adhered.

Surfacing: (Optional) Install one of the following to obtain required fire classification.

1. Gravel or slag at 400 lbs/sq or 300 lbs/sq, respectively, in a flood coat of approved asphalt at 60 lbs/sq.
2. Karnak 97 Fibrated Aluminum Asphalt Roof Coating or Asbestos Free Aluminum Roof Coating at 1½ gal/sq.
3. Kokem Products Sunguard Acrylic Roof Coating at 1 gal/sq.
4. Monsey Endure Aluminum Roof Coating, Weather Check or Pro-Grade Aluminum Roof Coating at 1½ gal/sq.
5. Grundy al MB Aluminum Roof Coating at 1-2 gal/sq.
6. Fields F350 Heat Shield Aluminum Coating or F630 Heat Shield Fibered Aluminum Coating at 1½ gal/sq.

Maximum Design Pressure: -82.5 psf; (See general limitation #7.)

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. Type B, Grade C steel deck

System Type C(2): All layers of insulation are mechanically attached to roof deck. Membrane is subsequently adhered to insulation.

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**
Any approved Polyisocyanurate Minimum 1.5" thick	**N/A**	**N/A**

Top Insulation Layer	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
High Density Wood Fiberboard (coated six-sides only) Minimum ½" thick	**4, 19 or 22**	**1:1.33 ft^2**
Dens-Deck Prime Minimum ¼" thick	**4, 19 or 22**	**1:1.33 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.

Base Sheet: (Optional if using SA Base Sheet self-adhered) One ply of Nail Base adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional if using Nail Base (as base sheet) adhered in hot asphalt) One or more plies of SA Base Sheet or SA Base Sheet (FR) self-adhered.

Membrane: One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet (FR), SA-APP Cap Sheet (S), SA-APP Cap Sheet (G), SA-APP Cap Sheet (G) (FR), Elastoflex SA V (G) FR or Elastoflex SA V (G) self-adhered.

Surfacing: (Optional) Install one of the following to obtain required fire classification.

1. Gravel or slag at 400 lbs/sq or 300 lbs/sq, respectively, in a flood coat of approved asphalt at 60 lbs/sq.
2. Karnak 97 Fibrated Aluminum Asphalt Roof Coating or Asbestos Free Aluminum Roof Coating at 1½ gal/sq.
3. Kokem Products Sunguard Acrylic Roof Coating at 1 gal/sq.
4. Monsey Endure Aluminum Roof Coating, Weather Check or Pro-Grade Aluminum Roof Coating at 1½ gal/sq.
5. Grundy al MB Aluminum Roof Coating at 1-2 gal/sq.
6. Fields F350 Heat Shield Aluminum Coating or F630 Heat Shield Fibered Aluminum Coating at 1½ gal/sq.

Maximum Design Pressure: -82.5 psf; (See general limitation #7.)

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga. Type B, Grade C steel deck

System Type D(5): All insulation is loose laid with preliminary attachment to deck. Base sheet is subsequently mechanically fastened through insulation to the roof deck.

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**
Any approved Polyisocyanurate Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer (Optional)	**Insulation Fasteners (Table 3)**	**Fastener Density/ft^2**
High Density Wood Fiber (coated six-sides only) Minimum ½" thick	**N/A**	**N/A**
Dens Deck or Dens Deck Prime Minimum ¼" thick	**N/A**	**N/A**

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

Base Sheet: One ply of Nail Base fastened to the deck as described below:

Fastening: Attach base sheet using Mule-Hide HD(#14) or EHD(#15) Fasteners with Mule-Hide Insulation Plates, CF Dekfast #14 or #15 Fasteners with Hex Plates or Tru-Fast HD(#14) or XHD(#15) with MP-3 Plates 12" o.c. in a 4" lap and 12" o.c. in two equally spaced staggered rows in the center of the sheet.

Ply Sheet: (Optional) One or more plies of SA Base Sheet or SA Base Sheet (FR)

Membrane: One ply of SA-SBS Cap Sheet, SA-SBS Cap Sheet (FR), SA-APP Cap Sheet (S), SA-APP Cap Sheet (G), SA-APP Cap Sheet (G) (FR), Elastoflex SA V (G) FR or Elastoflex SA V (G) self-adhered.

Surfacing: (Optional) Install one of the following to obtain required fire classification.

1. Gravel or slag at 400 lbs/sq or 300 lbs/sq, respectively, in a flood coat of approved asphalt at 60 lbs/sq.
2. Karnak 97 Fibrated Aluminum Asphalt Roof Coating or Asbestos Free Aluminum Roof Coating at 1½ gal/sq.
3. Kokem Products Sunguard Acrylic Roof Coating at 1 gal/sq.
4. Monsey Endure Aluminum Roof Coating, Weather Check or Pro-Grade Aluminum Roof Coating at 1½ gal/sq.
5. Grundy al MB Aluminum Roof Coating at 1-2 gal/sq.
6. Fields F350 Heat Shield Aluminum Coating or F630 Heat Shield Fibered Aluminum Coating at 1½ gal/sq.

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

STEEL DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant.

2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant (When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). (When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9B-72 of the Florida Administrative Code.

END OF THIS ACCEPTANCE