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)

Tremco Inc.
3735 Green Road
Beachwood, OH 44122

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 and the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Tremco Modified Bitumen Roofing Systems Over Cementitious Wood Fiber 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 revises NOA No. 06-0602.06 and consists of pages 1 through 25.
The submitted documentation was reviewed by Jorge L. Acebo.

PRODUCT CONTROL ACCEPTED

ROOFING ASSEMBLY APPROVAL

Category: Membrane Roofing System
Sub-Category: SBS Modified Bitumen
Deck Type: Cementitious Wood Fiber
Maximum Design Pressures: **-85 psf**

TABLE 1
TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

Product	Dimensions	Test Specifications	Product Description
BURMastic Base Sheet Adhesive	5 or 55 gallons	Proprietary	Asphalt based sheet adhesive.
BURmastic Adhesive	5 or 55 gallon	Proprietary	Cold applied ply sheet and surfacing adhesive.
BURmastic Composite Ply	3' x 72'	ASTM D 4601 Type II	Asphalt coated, polyester/fiberglass reinforced base/ply sheet.
BURmastic FR	5 or 55 gallon	Proprietary	Cold applied, fire rated surfacing adhesive.
BURmastic Glass Ply	3' x 72'	ASTM D 4601 Type II	Asphalt coated, fiberglass reinforced base/ply sheet.
BURmastic Glass Ply	3' x 108'	ASTM D 4601 Type II	Asphalt coated, fiberglass reinforced base/ply sheet.
Double Duty Aluminum	5 gallons	ASTM D 2824	Aluminum pigmented roof coating.
Fas-n-Free Adhesive	System	Proprietary	One part, solvent free insulation adhesive.
High Build Reflective Coating	5 and 55 gallons	Proprietary	High solids, water-based, elastomeric coating.
One Coat Aluminum	5 and 55 gallons	ASTM D 2824 Type III	Asphalt based, fibered aluminum roof coating.
Polarcote FR	5 and 55 gallons	Proprietary	Fire retardant acrylic/polymer blend emulsion.
PolyTHERM Roofing Ply	39 ¾" x 318'	Proprietary	Non-woven, heat resistant polyester ply sheet.
POWER Ply Standard FR	39 ½" x 34.5'	ASTM D 6163	Fiberglass reinforced modified-bitumen membrane.
POWER Ply Premium FR	39 ½" x 34.5'	ASTM D 6162	Composite reinforced modified-bitumen membrane.
POWER Ply Supreme HT FR	39 ½" x 34.5'	ASTM D 6162	Composite reinforced modified-bitumen membrane.
POWER Ply Premium Smooth	39 ½" x 51.5'	ASTM D 6162	Composite reinforced modified-bitumen membrane.
POWER Ply Supreme Smooth	39 ½" x 34.5'	ASTM D 6162	Composite reinforced modified-bitumen membrane.
POWER Ply HE FR	39 ½" x 34.5'	ASTM D 6164	Polyester reinforced modified-bitumen membrane.

Product	Dimensions	Test Specifications	Product Description
POWER Ply Standard Cold Adhesive	5 and 55 gallon containers	Proprietary	Cold applied ply sheet and membrane adhesive.
POWER Ply Modified Hot Melt Adhesive	60 lb. Keg	Proprietary	Polymer modified hot melt adhesive.
POWER Ply IV	5 sq./roll	ASTM D 2178 Type IV	Type IV asphalt impregnated glass felt for use in conventional and modified bitumen built up roofing.
POWER Ply VI	5 sq./roll	ASTM D 2178 Type VI	Type IV asphalt impregnated glass felt for use in conventional and modified bitumen built up roofing.
Premium III	100 lb. keg	ASTM D 312	Premium grade Type III asphalt.
Premium IV	100 lb. keg	ASTM D 312	Premium grade Type IV asphalt.
THERMastic Adhesive	60 lb. Containers	Proprietary	Polymer modified hot melt adhesive.
THERMglass Type IV	3' x 180'	ASTM D 2178 Type IV	Type IV asphalt impregnated glass felt.
THERMglass Type VI	3' x 180'	ASTM D 2178 Type VI	Type VI asphalt impregnated glass felt.
Tremlastic	5 or 55gallon	Proprietary	Polymer modified asphalt emulsion.
Tremlastic S	5 or 55gallon	Proprietary	Non-fibered, polymer modified asphalt emulsion.
TREMprime ™ Q.D.	1,5 or 55 gallon containers	ASTM D 41	Asphalt based roofing primer.
Tremprime ® WB	5 gallon container	Proprietary	Water based roofing primer.
Therm™ 100	System		Tremco built-up roofing system using Thermastic and Thermglass
Therm™ 200	System		Tremco built-up roofing system using Polytherm and Thermastic
Tremprime® WB	5 gallon	Proprietary	Water based roofing primer

TABLE 2
TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS

Product	Dimensions	Test Specification	Product Description	Manufacturer (With current NOA)
Pyrox	Various	TAS 110	Polyisocyanurate foam insulation	Apache Products Co.
ACFoam I	Various	TAS 110	Polyisocyanurate foam insulation	Atlas Energy Products
ACFoam II	Various	TAS 110	Polyisocyanurate foam insulation	Atlas Energy Products
Hy-Tec and Hy-Tec 2	Various	TAS 110	Fiberglass roof insulation	Celotex Corp.
Hy-Therm AP	Various	TAS 110	Polyisocyanurate foam insulation	Celotex Corp.
Hy-Therm Nail-Line	Various	TAS 110	Polyisocyanurate foam insulation with nailing surface	Celotex Corp.
ISO 95+	Various	TAS 110	Polyisocyanurate foam insulation	International Permalite
E'NRG'Y 2 E'NRG'Y 2 Plus	Various	TAS 110	Polyisocyanurate foam insulation	Johns Manville (NRG)
ISORoc	Various	TAS 110	Polyisocyanurate and rockwool composite insulation	Johns Manville (NRG)
Multi-Max	Various	TAS 110	Polyisocyanurate foam insulation	R-Max
Fiberglas Insulation	Various	TAS 110	Fiberglass roof insulation	Johns Manville
UltraGard Gold	Various	TAS 110	Polyisocyanurate foam insulation	Johns Manville
Fiberglas	Various	TAS 110	Fiberglass roof insulation	Johns Manville / Owens Corning
Fiber Base		TAS 110	Fiberglass roof insulation	Temple
High Density Wood Fiberboard	Various	TAS 110	Wood fiberboard insulation	Generic
Perlite		TAS 110	Perlite insulation	Generic

APPROVED FASTENERS:

Table 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Rawlite	Insulation and Base sheet Fastener	Various	Powers Fasteners, Inc.
2.	Polymer Gyptec	Insulation and Base sheet Fastener	Various	ITW Buildex
3.	NTB Magnum	Insulation and Base sheet Fastener	Various	Johns Manville
4.	GTL	Insulation and Base sheet Fastener	Various	Olympic Manufacturing Group
5.	NTB-1in. Head (with plate)	Glass reinforced nylon	0.75 in. (19mm) major thread dia.	Olympic Manufacturing Group

EVIDENCE SUBMITTED:

Test agency	Test Identifier	Test Name/Report	Date
Factory Mutual Research Corporation	1994 FMRC	Current Insulation Fastening Requirements	01/01/94
	J.I. #2Y9A5.AM	Class 4470	11/13/95
	J.I. #2D1A8.AM	Class 4470	07/27/2000
	J.I. #0D0A9.AM	Class 4470	08/01/2000
PRI Asphalt Technologies, Inc.	TRE-15-02-01	Physical Properties	05/25/99
Underwriters Laboratories, Inc.	R6692	Fire Classification Compliance	01/01/94
Momentum Technologies, Inc.	DX12K5A	ASTM D 6163	11/07/05
	CX13K5A	ASTM D 6162	
	DX11K5A	ASTM D 6164	

APPROVED ASSEMBLIES:

Membrane Type: SBS

Deck type 5I: Cementitious Wood Fiber, Insulated

Deck Description: Cementitious Wood Fiber

System Type A (1): Anchor sheet mechanically fastened; one or more layers of insulation 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
Perlite		
Minimum 1" thick	**N/A**	**N/A**

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Fiberglas		
Minimum $^{15}/_{16}$" thick	**N/A**	**N/A**
Perlite		
Minimum 1" thick	**N/A**	**N/A**

Note: All insulation shall be adhered to the anchor sheet in THERMastic at 2.5 gal./sq. or in full mopping of approved hot 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.

Anchor Sheet: One ply of BURMastic Composite Ply or BURMastic Glass Ply mechanically fastened to the deck as detailed below.

Fastening: Fasten anchor sheet with approved fasteners at a 4" side lap 9" o.c. and two rows staggered in the center of the sheet 18" o.c.

Base Sheet: (Optional) One ply of Poly THERM or BURMastic Composite Ply adhered to the insulated substrate with THERMastic, Premium III or type III asphalt at an application rate of 32 lb./sq. ± 15%.

Ply Sheet: (Optional) Two plies of THERMglass adhered to the insulated substrate with THERMastic, Premium III, Premium IV or type III asphalt at an application rate of 32 lb./sq. ± 15%.

Membrane: THERM MB 3G25 or THERM MB 3G25 FR adhered to the insulated substrate or base sheet with THERMastic, Premium III or type III asphalt at an application rate of 32 lb./sq. ± 15% or THERM MB 2C60 adhered to the ply sheet with THERMastic, Premium III, Premium IV or type III asphalt at an application rate of 32 lb./sq. ± 15%

Cap Sheet: (Optional) POWER Ply Supreme HT FR, POWER Ply HE FR, POWER Ply Standard FR, POWER Ply Premium FR adhered with THERMastic, Premium III or type III asphalt at an application rate of 32 lb./sq. ± 15% POWER Ply Standard Cold Adhesive at a rate of 1.5-2 gal./sq.

Surfacing: Use one of the following surfacing.

1. Gravel or slag applied at 300 lbs. or 400 lbs., respectively, in THERMastic or type III asphalt at an application rate of 60 lb./sq. ± 15%.
2. Two coats of FireKote or Weatherbuster at 1 gal./sq..
3. A two part surfacing consisting of 4-5 gal./sq. of Tremlastic and a second coat of FireKote or Double Duty Aluminum at 1 gal./sq..
4. A two part surfacing consisting of two coats of FireKote at 1 gal./sq., and a final coat of Improved Polarcote at 1 gal./sq.

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

Membrane Type: SBS

Deck type 5I: Cementitious Wood Fiber, Insulated

Deck Description: Cementitious Wood Fiber

System Type A (2): Anchor sheet mechanically fastened; one or more layers of insulation 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
ACFoam-I, Ultra/M-II Iso-Glas, Permalite Isolite, ACFoam-II, Hy-Therm White Line, Hy-Therm AP, UltraGard Gold, Multi-Max		
Minimum 1.5" thick	**N/A**	**N/A**
Fiberglas		
Minimum $^{15}/_{16}$" thick	**N/A**	**N/A**

Note: Base layers of insulation shall be bonded to anchor sheet with ½" ribbons of FAS-n-FREE adhesive applied at 1.5 gal./sq. for perlite and polyisocyanurate and 2 gal./sq. for fiberglas insulation.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Fiberglas		
Minimum $^{15}/_{16}$" thick	**N/A**	**N/A**
Perlite		
Minimum 1" thick	**N/A**	**N/A**

Note: Top layer of insulation shall be bonded with ½" ribbons of FAS-n-FREE adhesive applied at 1.5 gal./sq. for perlite and polyisocyanurate and 2 gal./sq. for fiberglas insulation.

Anchor Sheet: One ply of BURMastic Composite Ply or BURMastic Glass Ply mechanically fastened to the deck as detailed below.

Fastening: Fasten anchor sheet with approved fasteners at a 4" side lap 9" o.c. and two rows staggered in the center of the sheet 18" o.c.

Base Sheet: (Optional) One ply of Poly THERM or BURMastic Composite Ply adhered to the insulated substrate with THERMastic, Premium III or type III asphalt at an application rate of 32 lb./sq. ± 15%.

Ply Sheet: (Optional) Two plies of THERMglass adhered to the insulated substrate with THERMastic, Premium III, Premium IV or type III asphalt at an application rate of 32 lb./sq. ± 15%.

Membrane: THERM MB 3G25 or THERM MB 3G25 FR adhered to the insulated substrate or base sheet with THERMastic, Premium III or type III asphalt at an application rate of 32 lb./sq. ± 15% or THERM MB 2C60 adhered to the ply sheet with THERMastic, Premium III, Premium IV or type III asphalt at an application rate of 32 lb./sq. ± 15%

Cap Sheet: (Optional) POWER Ply Supreme HT FR, POWER Ply HE FR, POWER Ply Standard FR, POWER Ply Premium FR adhered with THERMastic, Premium III or type III asphalt at an application rate of 32 lb./sq. ± 15% POWER Ply Standard Cold Adhesive at a rate of 1.5-2 gal./sq.

Surfacing: Use one of the following surfacing.

1. Gravel or slag applied at 300 lbs. or 400 lbs., respectively, in THERMastic or type III asphalt at an application rate of 60 lb./sq. ± 15%.
2. Two coats of FireKote or Weatherbuster at 1 gal./sq..
3. A two part surfacing consisting of 4-5 gal./sq. of Tremlastic and a second coat of FireKote or Double Duty Aluminum at 1 gal./sq..
4. A two part surfacing consisting of two coats of FireKote at 1 gal./sq., and a final coat of Improved Polarcote at 1 gal./sq.

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

Deck Type 5I: Cementitious Wood Fiber, Insulated

Deck Description: Cementitious wood fiber

System Type A (3): Anchor sheet mechanically fastened; all layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

Insulation Base Layer	Fastener Density ft^2	Insulation Fasteners (Table 3)
One or more layers of any of the following insulations:		
E'NRG'Y-2, ACFoam II, Multi-Max, Multi-Max FA, Pyrox, Whiteline, Isoroc, E'NRG'Y-2 Plus		
Minimum: 1.5" thick	N/A	N/A

Insulation Base or Top Layer	Fastener Density ft^2	Insulation Fasteners (Table 3)
Isoroc, E'NRG'Y-2 Plus Minimum: 1.5" thick	N/A	N/A
High Density Wood Fiberboard Minimum: ½" thick	N/A	N/A
Dens Deck Minimum: ¼" thick	N/A	N/A

Note: Optional insulation shall be adhered to the anchor sheet in full moppings of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft^2 or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 1.5 gallons per square or 2.0 gallons per square for Fiberglas Roof Insulation. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations 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 used as a top layer shall be placed with the polyisocyanurate side facing down .

Anchor sheet: BURMastic Composite Ply or Glass Ply mechanically fastened to roof deck as described below:

Fasteners: **OPTION #1:** Rawlite fasteners and minimum 3" diameter stress plates applied 9" o.c. along the sidelap wich shall be 4", and in two rows 18" o.c. equally spaced and staggered in the field.

OPTION #2: Simplex Tube-Lok fasteners and minimum 2" diameter Simplex Tube-Lok stress plates applied 6" o.c. along the sidelap wich shall be 4", and in two rows 12" o.c. equally spaced and staggered in the field.

Base Sheet: (Optional) BURmastic Composite Ply may be used in conjunction with ply sheet.

Ply Sheet: Two or three plies of THERMglas or PolyTHERM ply sheet adhered to insulation or base sheet with THERMastic, Premium III, Premium IV or Type III asphalt at 30 to 35 lb/sq for each ply or three or four plies of Approved Type IV or Type VI ply sheet adhered to insulation or base sheet with Premium III, Premium IV or Type III asphalt at 30 to 35 lb/sq for each ply.. (See specification number for appropriate number of plies).

Cap Sheet: Power Ply Supreme HT FR, Power Ply HE FR, Power Ply Standard FR, Power Ply Premium FR, set in Power Ply Adhesive at a rate of 1.5-2 gal. Per 100 Sq. Ft.

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

1. Two part surfacing consisting of 4-5 gal./sq. of Tremlastic or Tremlastic S surfaced with Double Duty Aluminum coating at ¾ gal./sq or surfaced with Improved Polarcote or Polarcote FR in two coats at 1 gallon per square per coat.
2. Flood coat of THERMastic and gravel at application rates of 3.5 gal./sq. and 400 lbs./sq., respectively.
3. Flood coat of BURMastic and gravel with applications rates of 4-5 gal./sq. and 400 lbs/sq., respectively.

Maximum Design Pressure:

-45 psf, with Fastening Option #1 (See General Limitation #9)

-52.5 psf, with Fastening Option #2 (See General Limitation #9)

Deck Type 5I: Cementitious Wood Fiber, Insulated

Deck Description: Cementitious wood fiber

System Type A (4): Anchor sheet mechanically fastened; all layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

Insulation Base Layer	Fastener Density ft^2	Insulation Fasteners (Table 3)
One or more layers of any of the following insulations:		
E'NRG'Y-2, ACFoam II, Multi-Max, Multi-Max FA, Pyrox, Whiteline, Isoroc, E'NRG'Y-2 Plus		
Minimum: 1.5" thick	N/A	N/A

Insulation Base or Top Layer	Fastener Density ft^2	Insulation Fasteners (Table 3)
Isoroc, E'NRG'Y-2 Plus Minimum: 1.5" thick	N/A	N/A
High Density Wood Fiberboard Minimum: ½" thick	N/A	N/A
Dens Deck Minimum: ¼" thick	N/A	N/A

Note: Optional insulation shall be adhered to the anchor sheet in full moppings of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft^2 or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 1.5 gallons per square or 2.0 gallons per square for Fiberglas Roof Insulation. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations 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 used as a top layer shall be placed with the polyisocyanurate side facing down .

Anchor sheet: BURMastic Composite Ply or Glass Ply mechanically fastened to roof deck as described below:

Fasteners: **OPTION #1:** Rawlite fasteners and minimum 3" diameter stress plates applied 9" o.c. along the sidelap wich shall be 4", and in two rows 18" o.c. equally spaced and staggered in the field.

OPTION #2: Simplex Tube-Lok fasteners and minimum 2" diameter Simplex Tube-Lok stress plates applied 6" o.c. along the sidelap wich shall be 4", and in two rows 12" o.c. equally spaced and staggered in the field.

Base Sheet: (Optional) BURmastic Composite Ply may be used in conjunction with ply sheet.

Ply Sheet: Two or three plies of BURmastic Composite Ply, BURmastic Glass Ply or approved G2 fiberglass base ply sheet adhered in 3.5 gal./sq. ± 15% of BURmastic adhesive or Power Ply adhesive (See specification number for appropriate number of plies).

Note: Base sheet or first ply sheet shall be applied in BURmastic Base Sheet Adhesive or BURmastic Solvent Free Base Sheet Adhesive

Cap Sheet: Power Ply Supreme HT FR, Power Ply HE FR, Power Ply Standard FR, Power Ply Premium FR, set in Power Ply Adhesive at a rate of 1.5-2 gal. Per 100 Sq. Ft.

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

1. Two part surfacing consisting of 4-5 gal./sq. of Tremlastic or Tremlastic S surfaced with one of the following:
   Double Duty Aluminum coating at ¾ gal./sq.
   60 lbs. #11 3M roofing granule's in wet Tremlastic
   Crushed Stone, nominal 3/64"-3/8" at 240lbs./sq. in wet Tremlastic or
   Improved Polarcote or Polarcote FR in two coats at 1 gallon per square per coat
2. Flood coat of BURMastic and gravel at application rates of 5-6 1/5 gal./sq. and 400 lbs./sq., respectively

Maximum Design Pressure: **-45 psf**, with Fastening Option #1 (See General Lmitation #9)

-52.5 psf, with Fastening Option #2 (See General Lmitation #9)

Membrane Type: SBS

Deck type 5I: Cementitious Wood Fiber, Insulated

Deck Description: Cementitious Wood Fiber

System Type B (1): Base layer of insulation mechanically fastened, top layer of insulation 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
ACFoam-I, Ultra/M-II Iso-Glas, Permalite Isolite, ACFoam-II, Hy-Therm White Line, Hy-Therm AP, UltraGard Gold, Multi-Max		
Minimum 1.5" thick	**3, 4**	**1:2 ft^2**
Fiberglas		
Minimum $^{15}/_{16}$" thick	**3, 4**	**1:2 ft^2**

Note: Fastener density assumes compliance with Roofing Application Standard RAS 117; field withdrawal resistance testing shall be carried out in accordance with TAS 105 to confirm compliance (see limitations). See Roofing Application Standard RAS 117 for fastener details.

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Fiberglas		
Minimum $^{15}/_{16}$" thick	**N/A**	**N/A**
Perlite		
Minimum ¾" thick	**N/A**	**N/A**

Note: Apply top layer of insulation in a full mopping of any mopping asphalt at an application rate, for the appropriate slope, of 25 lbs./sq. ± 15%. Please refer to Roofing Application Standard RAS 117 for insulation attachment requirements.

Base Sheet: (Optional) One ply of Poly THERM or BURmastic Composite Ply adhered to the insulated substrate with THERMastic, Premium III or type III asphalt at an application rate of 32 lb./sq. ± 15%.

Ply Sheet: (Optional) Two plies of THERMglass adhered to the insulated substrate with THERMastic, Premium III, Premium IV or type III asphalt at an application rate of 32 lb./sq. ± 15%.

Membrane: THERM MB 3G25 or THERM MB 3G25 FR adhered to the insulated substrate or base sheet with THERMastic, Premium III or type III asphalt at an application rate of 32 lb./sq. ± 15% or THERM MB 2C60 adhered to the ply sheet with THERMastic, Premium III, Premium IV or type III asphalt at an application rate of 32 lb./sq. ± 15%.

Cap Sheet: (Optional) POWER Ply Supreme HT FR, POWER Ply HE FR, POWER Ply Standard FR, POWER Ply Premium FR adhered with THERMastic, Premium III or type III asphalt at an application rate of 32 lb./sq. ± 15% POWER Ply Standard Cold Adhesive at a rate of 1.5-2 gal./sq.

Surfacing: Use one of the following surfacing.

1. Gravel or slag applied at 300 lbs. or 400 lbs., respectively, in THERMastic or type III asphalt at an application rate of 60 lb./sq. ± 15%.
2. Two coats of FireKote or Weatherbuster at 1 gal./sq..
3. A two part surfacing consisting of 4-5 gal./sq. of Tremlastic and a second coat of FireKote or Double Duty Aluminum at 1 gal./sq..
4. A two part surfacing consisting of two coats of FireKote at 1 gal./sq., and a final coat of Improved Polarcote at 1 gal./sq.

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

Deck Type 5I: Cementitious Wood Fiber, Insulated

Deck Description: Cementitious wood fiber

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

All General Limitations apply.

Insulation Base Layer	Fastener Density ft^2	Insulation Fasteners (Table 3)
AC-Foam II, E'NRG'Y-2 or Multi-Max, E'NRG'Y-2 Plus		
Minimum: 1.5" thick	1:1.3	5

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 fastener details.

Insulation Top Layer	Fastener Density ft^2	Insulation Fasteners (Table 3)
Celotex High Density Wood Fiberboard		
Minimum: ½" thick	N/A	N/A
Dens Deck		
Minimum: ¼" thick	N/A	N/A

Note: Apply optional top layer of insulation in a full mopping of approved hot asphalt applied within the EVT range and at a rate of 20-40 lbs/100 ft^2-or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 1.5 gallons per square or 2.0 gallons per square for Fiberglas Roof Insulation. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as the base layer shall only be used as the base layer 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) BURmastic Composite Ply may be used in conjunction with ply sheet.

Ply Sheet: Two or three plies of THERMglas or PolyTHERM ply sheet adhered to insulation or base sheet with THERMastic, Premium III, Premium IV or Type III asphalt at 30 to 35 lb/sq for each ply or three or four plies of Approved Type IV or Type VI ply sheet adhered to insulation or base sheet with Premium III, Premium IV or Type III asphalt at 30 to 35 lb/sq for each ply.. (See specification number for appropriate number of plies).

Cap Sheet: Power Ply Supreme HT FR, Power Ply HE FR, Power Ply Standard FR, Power Ply Premium FR, set in Power Ply Adhesive at a rate of 1.5-2 gal. Per 100 Sq. Ft.

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

1. Two part surfacing consisting of 4-5 gal./sq. of Tremlastic or Tremlastic S surfaced with Double Duty Aluminum coating at ¾ gal./sq. or surfaced with Improved Polarcote or Polarcote FR in two coats at 1 gallon per square per coat.
2. Flood coat of THERMastic and gravel at application rates of 3.5 gal./sq. and 400 lbs./sq., respectively.
3. Flood coat of BURMastic and gravel with applications rates of 4-5 gal./sq. and 400 lbs/sq., respectively.

Maximum Design Pressure: **-85 psf,** (See General limitation #9)

Deck Type 5I: Cementitious Wood Fiber, Insulated

Deck Description: Cementitious wood fiber

System Type B (3): Base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt or adhesive.

All General Limitations apply.

Insulation Base Layer	Fastener Density ft^2	Insulation Fasteners (Table 3)
AC-Foam II, E'NRG'Y-2 or Multi-Max, E'NRG'Y-2 Plus		
Minimum: 1.5" thick	1:1.3	5

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 fastener details.

Insulation Top Layer	Fastener Density ft^2	Insulation Fasteners (Table 3)
High Density Wood Fiberboard		
Minimum: ½" thick	N/A	N/A
Dens Deck		
Minimum: ¼ thick	N/A	N/A

Note: Apply optional top layer of insulation in a full mopping of approved hot asphalt applied within the EVT range and at a rate of 20-40 lbs/100 ft^2 or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 1.5 gallons per square or 2.0 gallons per square for Fiberglas Roof Insulation. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as the base layer shall only be used as the base layer 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) BURmastic Composite Ply may be used in conjunction with ply sheet.

Ply Sheet: Two or three plies of BURmastic Composite Ply, BURmastic Glass Ply or approved G2 fiberglass base ply sheet adhered in 3.5 gal./sq. ± 15% of BURmastic adhesive or Power Ply adhesive (See specification number for appropriate number of plies).

Note: Base sheet or first ply sheet shall be applied in BURmastic Base Sheet Adhesive or BURmastic Solvent Free Base Sheet Adhesive

Cap Sheet: Power Ply Supreme HT FR, Power Ply HE FR, Power Ply Standard FR, Power Ply Premium FR, set in Power Ply Adhesive at a rate of 1.5-2 gal. Per 100 Sq. Ft.

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

1. Two part surfacing consisting of 4-5 gal./sq. of Tremlastic or Tremlastic S surfaced with one of the following:
   Double Duty Aluminum coating at ¾ gal./sq.,
   60 lbs. #11 3M roofing granule's in wet Tremlastic
   Crushed Stone, nominal 3/64"-3/8" at 240lbs./sq. in wet Tremlastic or
   Improved Polarcote or Polarcote FR in two coats at 1 gallon per square per coat
2. Flood coat of BURMastic and gravel at application rates of 5-6 1/5 gal./sq. and 400 lbs./sq., respectively.

Maximum Design Pressure: **-85 psf,** (See General limitation #9)

Membrane Type: SBS

Deck type 5I: Cementitious Wood Fiber, Insulated

Deck Description: Cementitious Wood Fiber

System Type C: All layers of insulation simultaneously fastened.

All General and System Limitations apply.
One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Perlite		
Minimum ¾" thick	**N/A**	**N/A**
Fiberglas		
Minimum $^{15}/_{16}$" thick	**N/A**	**N/A**

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

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft^2
Fiberglas		
Minimum $^{15}/_{16}$" thick	**1, 2, 3**	**1:2 ft^2**
Perlite		
Minimum ¾" thick	**1, 2, 3**	**1:2 ft^2**

Note: Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation panels listed are minimum sizes and dimensions; if larger panel are used the number of fasteners per board shall be increased maintaining the same fastener density (see Roofing Application Standard RAS 117 for fasteners details).

Base Sheet: (Optional) One ply of Poly THERM or BURmastic Composite Ply adhered to the insulated substrate with THERMastic, Premium III or type III asphalt at an application rate of 32 lb./sq. ± 15%.

Ply Sheet: (Optional) Two plies of THERMglass adhered to the insulated substrate with THERMastic, Premium III, Premium IV or type III asphalt at an application rate of 32 lb./sq. ± 15%.

Membrane: THERM MB 3G25 or THERM MB 3G25 FR adhered to the insulated substrate or base sheet with THERMastic, Premium III or type III asphalt at an application rate of 32 lb./sq. ± 15% or THERM MB 2C60 adhered to the ply sheet with THERMastic, Premium III, Premium IV or type III asphalt at an application rate of 32 lb./sq. ± 15%.

Cap Sheet: (Optional) POWER Ply Supreme HT FR, POWER Ply HE FR, POWER Ply Standard FR, POWER Ply Premium FR adhered with THERMastic, Premium III or type III asphalt at an application rate of 32 lb./sq. ± 15% POWER Ply Standard Cold Adhesive at a rate of 1.5-2 gal./sq.

Surfacing: Use one of the following surfacing.

1. Gravel or slag applied at 300 lbs. or 400 lbs., respectively, in THERMastic or type III asphalt at an application rate of 60 lb./sq. ± 15%.
2. Two coats of FireKote or Weatherbuster at 1 gal./sq..
3. A two part surfacing consisting of 4-5 gal./sq. of Tremlastic and a second coat of FireKote or Double Duty Aluminum at 1 gal./sq..
4. A two part surfacing consisting of two coats of FireKote at 1 gal./sq., and a final coat of Improved Polarcote at 1 gal./sq.

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

Membrane Type: SBS

Deck type 5I: Cementitious Wood Fiber, Insulated

Deck Description: Cementitious Wood Fiber

System Type E (1): Base sheet mechanically fastened..

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Sheet: One ply of BURmastic Composite Ply and BURmastic Glass Ply mechanically fastened to the deck as detailed below: Fasten base sheet with Rawlite fasteners at a 4" side lap 9" o.c. and two rows staggered in the center of the sheet 18" o.c..

Ply Sheet: None.

Membrane: THERM MB 3G25 or THERM MB 3G25 FR adhered to the base sheet with THERMastic, Premium III or type III asphalt at an application rate of 32 lb./sq. ± 15%.

Cap Sheet: (Optional) POWER Ply Supreme HT FR, POWER Ply HE FR, POWER Ply Standard FR, POWER Ply Premium FR adhered with THERMastic, Premium III or type III asphalt at an application rate of 32 lb./sq. ± 15% POWER Ply Standard Cold Adhesive at a rate of 1.5-2 gal./sq.

Surfacing: Use one of the following surfacing.

1. Gravel or slag applied at 300 lbs. or 400 lbs., respectively, in THERMastic or type III asphalt at an application rate of 60 lb./sq. ± 15%.
2. Two coats of FireKote or Weatherbuster at 1 gal./sq..
3. A two part surfacing consisting of 4-5 gal./sq. of Tremlastic and a second coat of FireKote or Double Duty Aluminum at 1 gal./sq..
4. A two part surfacing consisting of two coats of FireKote at 1 gal./sq., and a final coat of Improved Polarcote at 1 gal./sq.

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

Deck Type 5: Cementitious Wood Fiber, Non-Insulated

Deck Description: Cementitious wood fiber

System Type E (2): Base sheet mechanically fastened

All General and System Limitations apply.

Base sheet: BURMastic Composite Ply or Glass Ply mechanically fastened to roof deck as described below:

Fasteners: **OPTION #1:** Rawlite fasteners and minimum 3" diameter stress plates applied 9" o.c. along the sidelap wich shall be 4", and in two rows 18" o.c. equally spaced and staggered in the field.

OPTION #2: Simplex Tube-Lok fasteners and minimum 2" diameter Simplex Tube-Lok stress plates applied 6" o.c. along the sidelap wich shall be 4", and in two rows 12" o.c. equally spaced and staggered in the field.

Ply Sheet: Two or three plies of THERMglas or PolyTHERM ply sheet adhered to insulation or base sheet with THERMastic, Premium III, Premium IV or Type III asphalt at 30 to 35 lb/sq for each ply or three or four plies of Approved Type IV or Type VI ply sheet adhered to insulation or base sheet with Premium III, Premium IV or Type III asphalt at 30 to 35 lb/sq for each ply.. (See specification number for appropriate number of plies).

Cap Sheet: Power Ply Supreme HT FR, Power Ply HE FR, Power Ply Standard FR, Power Ply Premium FR, set in Power Ply Adhesive at a rate of 1.5-2 gal. Per 100 Sq. Ft.

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

1. Two part surfacing consisting of 4-5 gal./sq. of Tremlastic or Tremlastic S surfaced with Double Duty Aluminum coating at ¾ gal./sq or surfaced with Improved Polarcote or Polarcote FR in two coats at 1 gallon per square per coat.
2. Flood coat of THERMastic and gravel at application rates of 3.5 gal./sq. and 400 lbs./sq., respectively.
3. Flood coat of BURMastic and gravel with applications rates of 4-5 gal./sq. and 400 lbs/sq., respectively.

Maximum Design Pressure: **-45 psf**, with Fastening Option #1 (See General Limitation #9)

-52.5 psf, with Fastening Option #2 (See General Limitation #9)

Deck Type 5: Cementitious Wood Fiber, Non-Insulated

Deck Description: Cementitious wood fiber

System Type E (3): Base sheet mechanically fastened; all layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

Base sheet: BURMastic Composite Ply or Glass Ply mechanically fastened to roof deck as described below:

Fasteners: **OPTION #1:** Rawlite fasteners and minimum 3" diameter stress plates applied 9" o.c. along the sidelap wich shall be 4", and in two rows 18" o.c. equally spaced and staggered in the field.

OPTION #2: Simplex Tube-Lok fasteners and minimum 2" diameter Simplex Tube-Lok stress plates applied 6" o.c. along the sidelap wich shall be 4", and in two rows 12" o.c. equally spaced and staggered in the field.

Ply Sheet: Two or three plies of BURmastic Composite Ply, BURmastic Glass Ply or approved G2 fiberglass base ply sheet adhered in 3.5 gal./sq. ± 15% of BURmastic adhesive or Power Ply adhesive (See specification number for appropriate number of plies).

Note: Base sheet or first ply sheet shall be applied in BURmastic Base Sheet Adhesive or BURmastic Solvent Free Base Sheet Adhesive

Cap Sheet: Power Ply Supreme HT FR, Power Ply HE FR, Power Ply Standard FR, Power Ply Premium FR, set in Power Ply Adhesive at a rate of 1.5-2 gal. Per 100 Sq. Ft.

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

1. Two part surfacing consisting of 4-5 gal./sq. of Tremlastic or Tremlastic S surfaced with one of the following:
   Double Duty Aluminum coating at ¾ gal./sq.
   60 lbs. #11 3M roofing granule's in wet Tremlastic
   Crushed Stone, nominal 3/64"-3/8" at 240lbs./sq. in wet Tremlastic or
   Improved Polarcote or Polarcote FR in two coats at 1 gallon per square per coat
2. Flood coat of BURMastic and gravel at application rates of 5-6 1/5 gal./sq. and 400 lbs./sq., respectively

Maximum Design Pressure: **-45 psf**, with Fastening Option #1 (See General Limitation #9)

-52.5 psf, with Fastening Option #2 (See General Limitation #9)

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