



BUILDING AND NEIGHBORHOOD COMPLIANCE DEPARTMENT (BNC)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208
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www.miamidade.gov/building/

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 and accepted by Miami-Dade County BNC - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BNC reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code. This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Tremco Modified Bitumen over Concrete 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 renews NOA No. 06-0821.03 and consists of pages 1 through 30.
The submitted documentation was reviewed by Alex Tigera.



NOA No.: 11-0301.04
Expiration Date: 07/12/16
Approval Date: 07/14/11
Page 1 of 30

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Modified Bitumen
Material: SBS
Deck Type: Concrete
Maximum Design Pressure -465 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:
TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
BURMastic Base Ply	10 squares/roll, 39 3/4" wide	ASTM D 2178	Asphalt based sheet adhesive.
BURMastic Base Sheet Adhesive	5 gallon container	Proprietary	Cold process adhesive used for adhering BURMastic Glass Ply or Composite Ply to approved insulations.
BURmastic Adhesive	5 or 55 gallon containers or 375 gallon	Proprietary	Cold applied ply sheet and surfacing adhesive.
BURmastic Composite Ply	36" x 66.6'	ASTM D 4601 Type II	Type II asphalt impregnated glass felt for use in conventional and modified bitumen built up roofing.
BURmastic FR		Proprietary	Cold applied, fire rated flood coat.
BURmastic Glass Ply	36" x 72'	ASTM D 4601 Type II, Proprietary	Asphalt impregnated polyester/glass/polyester composite for use in conventional and modified bitumen built-up roofing.
Double Duty Aluminum™	5 gallon containers	ASTM D 2824	Aluminum pigmented roof coating.
FAS-n-FREE Adhesive	System	Proprietary	One part, solvent free adhesive used for adhering approved insulations to approved substrates.
FireKote	5 and 55 gallons containers	Proprietary	Fire retardant acrylic/polymer blend emulsion.
Improved Polarcote	5 and 55 gallon containers	Proprietary	Reflective, white elastomeric roof coating.



NOA No.: 11-0301.04
 Expiration Date: 07/12/16
 Approval Date: 07/14/11
 Page 2 of 30

<u>Product</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
Poly-THERM Roofing Ply	10 squares per roll, 39 ¾" wide	Proprietary	Continuous filament, spun bonded polyester ply sheet for use in conventional and modified bitumen built-up roof systems.
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.
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. Cartons	ASTM D 312	Type III asphalt for use in built-up roofing systems.
Premium IV	100 lb. keg	ASTM D 312	Premium grade Type IV asphalt.
THERMastic Adhesive	60 lb. Containers	Proprietary	All purpose roofing cement.
THERMglass		ASTM D 2178 VI	Type VI asphalt impregnated glass felt for use in conventional and modified bitumen built up roofing.
TREMprime™ Q.D.	1,5 or 55 gallon containers	ASTM D 41	Asphalt based roofing primer.



<u>Product</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
Therm MB FR	100 sq. ft./roll	ASTM D 5147	Modified Bitumen glass reinforced fire resistant membrane.
Therm™ MB 2C60	1 sq./roll	ASTM D5147	Modified bitumen ply sheet used as a membrane in modified bitumen roof systems.
Therm™ MB 3G25	1 sq./roll	ASTM D 5147	Modified bitumen ply sheet used as a membrane in modified bitumen roof systems.
Tremlastic		TAS 121	Roof coating.
Tremprime WB	5 gallon container	Proprietary	Water based roofing primer.
Weatherbuster		TAS 121	Roof emulsion.

APPROVED INSULATIONS:

Table 2

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u> (With current NOA)
ACFoam I, ACFoam II	Various	TAS 110	Polyisocyanurate foam insulation	Atlas Energy Products
High Density Wood Fiberboard	Various	TAS 110	Wood fiber insulation board	Generic
Perlite Insulation	Various	TAS 110	Perlite insulation board	Generic
Ultra/M-II ISO/glas	Various	TAS 110	Polyisocyanurate foam insulation	Homasote Co.
E'NRG'Y-3, E'NRG'Y-3 Plus, PSI-25	Various	TAS 110	Polyisocyanurate foam insulation	Johns Manville Corp.
Fiber Glass	Various	TAS 110	Glass fiber board	Johns Manville Corp.
Multi-Max	Various	TAS 110	Polyisocyanurate foam insulation	R-Max
Trisotech	Various	DX12K5A CX13K5A DX11K5A	Polyisocyanurate foam insulation	Momentum Technologies Inc.



APPROVED FASTENERS:

Table 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Olympic Fastener #14	Insulation and membrane fastener	Various	Olympic Manufacturing Group, Inc.
2.	Insul-Fixx HD Fastener	Insulation fastener for concrete decks	Various	SFS Stadler, Inc.
3.	Glasfast (with plate)	Carbon Steel with SPEX (black) coating	Various	Johns Manville Corp.
4.	DekFast (with plate)	Carbon Steel, Senti (black)	Various	Construction Fasteners Inc.
5.	HD Insulfixx (with plate)	Steel, Tuff-Tite (black or purple)	Various	SFS Stadler Inc.
6.	Roofgrip (with plate)	Carbon Steel, SPEX (black) or Climaseal (blue)	Various	ITW Buildex Corp.
7.	Olympic (with plate)	Carbon Steel, CR-10 or Answer Coating (black)	Various	Olympic Fasteners
8.	Rawl Drive (with plate)	Carbon Steel, Black Coating	Various	Powers Fasteners
9.	Rawl Spike (with plate)	Carbon Steel, Black Coating	Various	Powers Fasteners
10.	Anchorbond (with plate)	Carbon Steel, Senti (black)	Various	The Celotex Corp.
11.	AccuTrac Hextra (with plate)	Carbon Steel, SPEX (black) or Climaseal (blue)	Various	ITW Buildex Corp.
12.	Tru-Fast (with plate)	Carbon Steel Tru-Kote Coating	Various	The Tru-Fast Corp.
13.	Con-Tite Fastener	Insulation fastening assembly	Various	Olympic Fasteners



EVIDENCE SUBMITTED:

<u>Test agency</u>	<u>Test Identifier</u>	<u>Test Name/Report</u>	<u>Date</u>
Factory Mutual Research Corporation	1994 FMRC	Current Insulation Fastening Requirements	01/01/94
Factory Mutual Research Corporation	J.I. #2Y9A5.AM	Class 4470	11/13/95
Factory Mutual Research Corporation	J.I. #2D1A8.AM	Class 4470	07/27/2000
Factory Mutual Research Corporation	J.I. #0D0A9.AM	Class 4470	08/01/2000
PRI Asphalt Technologies, Inc.	TRE-15-02-01	Physical Properties	05/25/99
IRT of S. Florida, Inc.	000-12	TAS 114	09/09/2000
Underwriters Laboratories, Inc.	R6692	Fire Classification Compliance	01/01/94
Momentum Technologies, Inc.	DX12K5A CX13K5A DX11K5A	ASTM D 6163 ASTM D 6162 ASTM D 6164	11/07/05
Atlantic & Caribbean Roof Consulting, LLC	ACRC 07-015	TAS-114 Appendix "D"	04/17/07



APPROVED ASSEMBLIES:

Membrane Type: SBS

Deck Type 3I: Concrete Decks, Insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(1): 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/ft²
Perlite Minimum 1" thick	N/A	N/A
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
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 deck 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 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment.

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%.

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% or 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 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(2): 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/ft²
ACFoam-I, Ultra/M-II Iso-Glas, Permalite Isolite, ACFoam-II, White Line, 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 primed concrete deck with 3/4" ribbons of FAS		
Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft²
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 1/2" ribbons of 3/4" ribbons of FAS-n-FREE adhesive applied at 3 gal./sq..

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%.

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% or 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 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A (3): All layers of insulation adhered with approved adhesive.

All General Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density ft²</u>	<u>Insulation Fasteners (Table 3)</u>
AC-Foam II, E'NRG'Y 3, E'NRG'Y 3 Plus Minimum: 1.3" thick	N/A	N/A
ISORoc Minimum: 1.5" thick	N/A	N/A
Multi-Max Minimum: 1.4" thick	N/A	N/A
High Density Wood Fiber Minimum: ½" thick	N/A	N/A
Perlite Minimum: ¾" thick	N/A	N/A
Fiberglas Minimum: 1 ⁵ / ₁₆ " thick	N/A	N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of anchor sheet or base insulation layer. All Insulation shall be adhered to the anchor sheet or primed deck in full moppings of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft² or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 1.5 gallons per square or, for Fiberglas , at 2 gallons per square. Please refer to Roofing Application Standard RAS 117 for insulatrion 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.

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 adhere to insulation or based sheet with THERMastic, Premium III, Premium III, Premium IV or Type III asphalt at 30 to 35 llb/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 Standard Cold Adhesive at a rate of 1.5-2 gal./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 Tremlastic S surfaced with Double Duty Aluminum coating at $\frac{3}{4}$ gal./sq., or surfaced with Improved Polarcote or Polacote FR in two coats at 1 gallon per square per coat.
2. Flood coat of BURMastic and gravel at application rates of 5-6 $\frac{1}{5}$ gal./sq. and 400 lbs./sq., respectively.

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



NOA No.: 11-0301.04
Expiration Date: 07/12/16
Approval Date: 07/14/11
Page 10 of 30

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(4): All layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density ft²</u>	<u>Insulation Fasteners (Table 3)</u>
One or more layers of the following insulations:		
AC-Foam II, E'NRG'Y 3, E'NRG'Y 3 Plus, ISORoc, Multi-Max Minimum: 1" thick	N/A	N/A
High Density Wood Fiber Minimum: 1/2" thick	N/A	N/A
Miami-Dade Approved Perlite Minimum: 3/4" thick	N/A	N/A
Fiberglas Minimum: 15/16" thick	N/A	N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of anchor sheet or base insulation layer. All insulation shall be adhered to the anchor sheet or primed deck in full moppings of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft² or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 1.5 gallons per square or, for Fiberglas, at 2 gallons per square. 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.

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 Standard Cold Adhesive at a rate of 1.5-2 gal./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 $\frac{3}{4}$ gal./sq.,
 - 60 lbs. #11 3M roofing granule's in wet Tremlastic
 - Crushed Stone, nominal $\frac{3}{64}$ "- $\frac{3}{8}$ " 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 $\frac{1}{5}$ gal./sq. and 400 lbs./sq., respectively.

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



NOA No.: 11-0301.04
Expiration Date: 07/12/16
Approval Date: 07/14/11
Page 12 of 30

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(S): All layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

Insulation: **OPTION #1:** min. 1.5" thick ACFoam II, E'NRG'Y-2 or Multi-Max adhered to the primed concrete deck in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. followed by min. ½" thick High Density Wood Fiberboard adhered to the base insulation layer in a similar manner.

OPTION #2: min. 1.5" thick ACFoam II, E'NRG'Y-2 or Multi-Max adhered to the primed concrete deck in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 1.5 gallons per sq. followed by min. ½" thick High Density Wood Fiberboard adhered to the base insulation layer in a similar manner.

OPTION #3: min. 1.5" thick ACFoam II, E'NRG'Y-2 or Multi-Max adhered to the primed concrete deck in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 1.5 gallons per sq. followed by min. 15/16" thick Fiberglass Roof Insulation Board adhered to the base insulation layer in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 2.0 gallons per sq.

OPTION #4: min. 1.5" thick ACFoam II, E'NRG'Y-2 or Multi-Max adhered to the primed concrete deck in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 1.5 gallons per sq. followed by min. ¼" thick Dens Deck adhered to the base insulation layer in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 1.5 gallons per sq.

OPTION #5: min. 1.5" thick E'NRG'Y-2 Plus adhered to the primed concrete deck in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 1.5 gallons per sq.

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 Standard Cold Adhesive at a rate of 1.5-2 gal./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 $\frac{3}{4}$ 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:

-252.5 psf, for Insulation Option #1 (See General Limitation #9.)

-195.0 psf, for Insulation Option #2 (See General Limitation #9.)

-130.0 psf, for Insulation Option #3 (See General Limitation #9.)

-405.0 psf, for Insulation Option #4 (See General Limitation #9.)

-335.0 psf, for Insulation Option #5 (See General Limitation #9.)



Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type A(6): All layers of insulation adhered with approved adhesive.

All General and System Limitations apply.

Insulation **OPTION #1:** min. 1.5" thick ACFoam II, E'NRG'Y-2 or Multi-Max adhered to the primed concrete deck in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 1.5 gallons per sq. followed by min. ½" thick High Density Wood Fiberboard adhered to the base insulation layer in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 1.5 gallons per sq.

OPTION #2: min. 1.5" thick ACFoam II, E'NRG'Y-2 or Multi-Max adhered to the primed concrete deck in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 1.5 gallons per sq. followed by min. 15/16" thick Fiberglass Roof Insulation Board adhered to the base insulation layer in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 2.0 gallons per sq.

OPTION #3: min. 1.5" thick ACFoam II, E'NRG'Y-2 or Multi-Max adhered to the primed concrete deck in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 1.5 gallons per sq. followed by min. ¼" thick Dens Deck adhered to the base insulation layer in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 1.5 gallons per sq.

OPTION #4: min. 1.5" thick E'NRG'Y-2 Plus adhered to the primed concrete deck in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. or in Fas-n-Free Insulation Adhesive applied in ribbons at a coverage rate of 1.5 gallons per sq.

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 POWERPly 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 Standard Cold Adhesive at a rate of 1.5-2 gal./100 sq.ft.



NOA No.: 11-0301.04
Expiration Date: 07/12/16
Approval Date: 07/14/11
Page 15 of 30

- 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 $\frac{3}{4}$ gal./sq.,
60 lbs. #11 3M roofing granule's in wet Tremlastic
Crushed Stone, nominal $\frac{3}{64}$ "- $\frac{3}{8}$ " 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 $\frac{1}{5}$ gal./sq. and 400 lbs./sq., respectively.

**Maximum Design
Pressure:**

-165.0 psf, for Insulation Option #1 (See General Limitation #9.)

-77.5 psf, for Insulation Option #2 (See General Limitation #9.)

-240.0 psf, for Insulation Option #3 (See General Limitation #9.)

-405.0 psf, for Insulation Option #4 (See General Limitation #9.)



Membrane Type: SBS
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
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, White Line, UltraGard Gold, Multi-Max Minimum 1.5" thick	1, 2	1:2 ft ²
Fiberglas Minimum 1 ⁵ / ₁₆ " thick	1, 2	1:2 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
Fiberglas Minimum 1 ⁵ / ₁₆ " thick	N/A	N/A
Perlite Minimum 1" thick	N/A	N/A

Note: Top layer of insulation shall be bonded with 1/2" ribbons of FAS-n-FREE adhesive applied at 1.5 gal./sq. for perlite and polyisocyanurate and 2 gal./sq. for fiberglas insulation.

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%.

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% or 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 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

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

All General and System Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density ft²</u>	<u>Insulation Fasteners (Table 3)</u>
Apache/Hy-Therm Pyrox, AP, White Line, UltraGard Gold Minimum: 1.3" thick	1:2.67	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Apache/Hy-Therm Nail-Line, ISORoc Minimum: 1.5" thick	1:2.67	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
E'NRG'Y 3 Minimum: 1.4" thick	1:3 1:4	4, 10, 7-S/G2, 13-S, 8, 9,
E'NRG'Y 3 Plus Minimum: 1.5" thick	1:4	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Iso 95 + Minimum: 1.4" thick	1:4 1:3	7-S/G2, 13-S/P, 5, 12
Multi-Max Minimum: 1.5" thick	1:2.9	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Perlite Minimum: ¾" thick	1:2	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Fiberglas Minimum: 1 ⁵ / ₁₆ " thick	1:2.67	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
High Density Wood Fiber Minimum: ½" thick	1:4	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13

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 TAS 117 for fastener details.



Insulation Top Layer

Fastener Density ft²

Insulation Fasteners
(Table 3)

Any of the insulations listed for Base Layer, above.

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 20-40lbs/100 ft² 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 Standard Cold Adhesive at a rate of 1.5-2 gal./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; (See General Limitation #9.)



Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type B(3): Base layer of insulation mechanically fastened, optional top layer adhered with approved asphalt.

All General and System Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density ft²</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>
Apache/Hy-Therm Pyrox, AP, White Line Minimum: 1.3" thick	1:2.67	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Apache/Hy-Therm Nail-Line Minimum: 1.5" thick	1:2.67	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
E'NRG'Y 3 Minimum: 1.4" thick	1:3 1:4	4, 10 7-S/G2, 8, 9, 13-S
ISORoc Minimum: 1.5" thick	1:2.67	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
E'NRG'Y 3 Plus Minimum: 1.5" thick	1:4	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Iso 95 + Minimum: 1.4" thick	1:4 1:3	5, 7-G2, 13-S/P 7-S, 12-S
Multi-Max Minimum: 1.5" thick	1:2.9	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
UltraGard Gold Minimum: 1.3" thick	1:2.67	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Perlite Minimum: ¾" thick	1:2	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Fiberglas Minimum: 1 ⁵ / ₁₆ " thick	1:2.67	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
High Density Wood Fiber Minimum: ½" thick	1:4	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13

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 ft²

Insulation Fasteners
(Table 3)

Any of the insulations listed for Base Layer, above.

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 20-40lbs/100 ft² 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 (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 Standard Cold Adhesive at a rate of 1.5-2 gal./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; (See General Limitation #9.)



Membrane Type: SBS
Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type C(1): All layers of insulation simultaneously attached.

All General and System Limitations apply.

One or more layers of any of the following insulations.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
Fiberglas Minimum 1 ⁵ / ₁₆ " thick	N/A	N/A
Perlite, Wood Fiber Minimum 1" thick	N/A	N/A

Top Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
Fiberglas Minimum 1 ⁵ / ₁₆ " thick	1, 2	1:2 ft ²
Perlite, Wood Fiber Minimum 1/2" thick	1, 2	1:2 ft ²

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

Note: 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.

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%.

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% or 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 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type C (2): All layers of insulation simultaneously fastened.

All General and System Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density ft²</u>	<u>Insulation Fasteners (Table 3)</u>
AC-Foam II Minimum: 1.3" thick	N/A	N/A
E'NRG'Y 3, Multi-Max Minimum: 1.4" thick	N/A	N/A
ISORoc, E'NRG'Y 3 Plus Minimum: 1.5" thick	N/A	N/A
High Density Wood Fiber Minimum: ½" thick	N/A	N/A
Perlite Minimum: ¾" thick	N/A	N/A
Fiberglas Minimum: 1 ⁵ / ₁₆ " thick	N/A	N/A

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

<u>Insulation Top Layer</u>	<u>Fastener Density ft²</u>	<u>Insulation Fasteners (Table 3)</u>
Apache/Hy-Therm Pyrox, AP, White Line Minimum: 1.3" thick	1:2.67	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Apache/Hy-Therm Nail-Line Minimum: 1.5" thick	1:2.7	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
E'NRG'Y 3 Minimum: 1.4" thick	1:3 1:4	3, 4, 10 7-S/G2, 8, 9, 13-S
ISORoc Minimum: 1.5" thick	1:2.67	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
E'NRG'Y 3 Plus Minimum: 1.5" thick	1:4	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13



Iso 95 +		
Minimum: 1.4" thick	1:4 1:3	7-S/G2, 13-S/P 5, 12
Multi-Max		
Minimum: 1.5" thick	1:2.9	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
UltraGard Gold		
Minimum: 1.3" thick	1:2.67	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Perlite		
Minimum: ¾" thick	1:2	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Fiberglas		
Minimum: 15/16" thick	1:2.67	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
High Density Wood Fiber		
Minimum: ½" thick	1:4	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13

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. Refer to Roofing Application Standard RAS 117 for insulation attachment.

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 Standard Cold Adhesive at a rate of 1.5-2 gal./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; (See General Limitation #9.)



NOA No.: 11-0301.04
Expiration Date: 07/12/16
Approval Date: 07/14/11
Page 24 of 30

Deck Type 3I: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete or concrete plank
System Type C(3): All layers of insulation simultaneously fastened.

All General and System Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density ft²</u>	<u>Insulation Fasteners (Table 3)</u>
AC-Foam II Minimum: 1.3" thick	N/A	N/A
E'NRG'Y 3 Minimum: 1.4" thick	N/A	N/A
ISORoc Minimum: 1.5" thick	N/A	N/A
E'NRG'Y 3 Plus Minimum: 1.5" thick	N/A	N/A
Multi-Max Minimum: 1.4" thick	N/A	N/A
High Density Wood Fiber Minimum: ½" thick	N/A	N/A
Perlite Minimum: ¾" thick	N/A	N/A
Fiberglas Minimum: 1 ⁵ / ₁₆ " thick	N/A	N/A

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

<u>Insulation Top Layer</u>	<u>Fastener Density ft²</u>	<u>Insulation Fasteners (Table 3)</u>
Apache/Hy-Therm Pyrox, AP, White Liue Minimum: 1.3" thick	1:2.67	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Apache/Hy-Therm Nail-Line Minimum: 1.5" thick	1:2.7	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13



NOA No.: 11-0301.04
 Expiration Date: 07/12/16
 Approval Date: 07/14/11
 Page 25 of 30

E'NRG'Y 3		
Minimum: 1.4" thick	1:3	3, 4, 10
	1:4	7-S/G2, 8, 9, 13-S
ISORoc		
Minimum: 1.5" thick	1:2.67	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
E'NRG'Y 3 Plus		
Minimum: 1.5" thick	1:4	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Iso 95 +		
Minimum: 1.4" thick	1:4	7- S/P/G2, 13-S/P
	1:3	5-S/P, 12-S/P
Multi-Max		
Minimum: 1.5" thick	1:2.9	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
UltraGard Gold		
Minimum: 1.3" thick	1:2.67	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Perlite		
Minimum: ¾" thick	1:2	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Fiberglas		
Minimum: 1 ⁵ / ₁₆ " thick	1:2.67	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
High Density Wood Fiber		
Minimum: ½" thick	1:4	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13

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. Refer to Roofing Application Standard RAS 117 for insulation attachment.

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

Ply Sheet: Two to 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 (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 Standard Cold Adhesive at a rate of 1.5-2 gal./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 $\frac{3}{4}$ gal./sq.,
60 lbs. #11 3M roofing granule's in wet Tremlastic
Crushed Stone, nominal $\frac{3}{64}$ "- $\frac{3}{8}$ " 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 $\frac{1}{5}$ gal./sq. and 400 lbs./sq., respectively.

Maximum Design

Pressure: -45 psf; (See General Limitation #9.)



NOA No.: 11-0301.04
Expiration Date: 07/12/16
Approval Date: 07/14/11
Page 27 of 30

Deck Type 3: Concrete Decks, Non-insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type E: Base sheet fully adhered.

All General and System Limitations apply.

Base Sheet: One ply of TREMCO BURmastic Composite Ply or BURmastic Glass Ply mechanically fastened to the deck as detailed below.

Fastening: Fasten base sheet with Insulfixx HD or Olympic # 14 at a 4" side lap 9" o.c. and two rows staggered in the center of the sheet 18" o.c..

Ply Sheet: None.

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. \pm 15% or 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. \pm 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 Polarkote at 1 gal./sq..

Maximum Design

Pressure: -45 psf. See General Limitation #9.



Deck Type 3: Concrete Decks, Non-insulated, New Construction

Deck Description: 2500 psi structural concrete or concrete plank

System Type F: Base sheet mechanically attached.

All General and System Limitations apply.

Cap Sheet: One ply of TREMCO APP granulated membrane torch applied to the primed deck.

Maximum Design

Pressure: -465 psf. See General Limitation #9.



NOA No.: 11-0301.04
Expiration Date: 07/12/16
Approval Date: 07/14/11
Page 29 of 30

CONCRETE 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 equivalent or enhanced 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.

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 side lap 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 to 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.: 11-0301.04
Expiration Date: 07/12/16
Approval Date: 07/14/11
Page 30 of 30