



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
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www.miamidade.gov/economy

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 RER - 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. RER 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 Built-Up-Roof Systems over Steel Decks

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

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

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

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

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

This renews NOA# 13-0109.03 and consists of pages 1 through 22.
The submitted documentation was reviewed by Alex Tigera.



NOA No.: 16-0927.11
Expiration Date: 03/28/22
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ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: BUR
Deck Type: Steel
Material: Fiberglass
Maximum Design Pressure -60 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
BURmastic Adhesive	5 or 55 gallon	Proprietary	Cold applied ply sheet and surfacing adhesive.
BURmastic Adhesive SF	5 or 55 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 Glass Ply	36" x 72'	ASTM D 4601 Type II	Asphalt impregnated polyester/fiberglass/polyester composite for use in conventional and modified bitumen built-up roofing.
BURmastic Glass Ply 28 lb	36" x 108'	ASTM D 4601 Type II	Asphalt coated, fiberglass reinforced base/ply sheet.
One Coat Aluminum	5 gallon	ASTM D 2824, Type III	Fiber Aluminum pigmented roof coating.
Double Duty Aluminum	5 gallon	ASTM D 2824	Aluminum pigmented roof coating.
ICE Coating	5 and 55 gallons	Proprietary	High solids, water-based, elastomeric coating.
Tremlastic SP	5 or 55gallon	Proprietary	Non-fibered, polymer modified asphalt emulsion.
FAS-N-FREE	System	Proprietary	One part, solvent free adhesive used for adhering Approved insulations to Approved substrates.
Tremco Low Rise Foam Insulation Adhesive	1.5 liters	Proprietary	One part, solvent free adhesive used for adhering Approved insulations to Approved substrates.
Tremco Low Rise Foam Insulation Adhesive (BG)	1.5 liters	Proprietary	One part, solvent free adhesive used for adhering Approved insulations to Approved substrates.
Tremco Low Rise Foam Insulation Adhesive Green	1.5 liters	Proprietary	One part, solvent free adhesive used for adhering Approved insulations to Approved substrates.



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PolyTHERM Roofing Ply	10 squares per roll 39¾" wide	Proprietary	Continuous filament, spun bonded polyester ply sheet for use in conventional and modified bitumen built-up roof systems.
POWERply Modified Hot Melt Adhesive	60 lb. Keg	Proprietary	Polymer modified hot melt adhesive systems.
Premium III	100 lb.	ASTM D 312	Type III asphalt for use in built-up roofing systems.
Premium IV	100 lb.	ASTM D 312	Type IV asphalt for use in built-up roofing systems
THERMastic Adhesive	60 lb.	Proprietary	All purpose roof cement.
THERMglass Type IV	3' x 180'	ASTM D 2178 Type IV	Type IV asphalt impregnated glass felt for use in conventional and modified bitumen built-up roof systems.
THERMglass VI	3' x 180'	ASTM D 2178 Type VI	Type VI asphalt impregnated glass felt for use in conventional and modified bitumen built-up roof systems.
TREMprime WB primer	5 gallon	Proprietary	Water based roofing primer.
Rock-It Adhesive	5 or 50 gallon containers	Proprietary	A white, highly reflective, low volatile surfacing adhesive
Rock-It WB Adhesive	5 or 50 gallon containers	Proprietary	A water based, white, highly reflective, low volatile surfacing adhesive
BURmastic Modified Composite Ply	3' X 72' rolls	ASTM D 4601-98 Type II	A polyester/glass/polyester trilaminate reinforcement coated with waterproofing asphalt modified with SBS rubber
BURmastic Composite Ply Premium	3' X 72' rolls	ASTM D 4601-98 Type II	A polyester/glass/polyester trilaminate reinforcement coated with waterproofing asphalt.
BURmastic Modified Premium Composite Ply	3' X 72' rolls	ASTM D 4601-98 Type II	A polyester/glass/polyester trilaminate reinforcement coated with waterproofing asphalt modified with SBS rubber

BURmastic Supreme Composite Ply	3' X 72' rolls	ASTM D 4601-98 Type II	A polyester/glass/polyester trilaminate reinforcement coated with waterproofing asphalt.
BURmastic Modified Supreme Composite Ply	3' X 72' rolls	ASTM D 4601-98 Type II	A polyester/glass/polyester trilaminate reinforcement coated with waterproofing asphalt with SBS rubber
POWERply HT Base	3' X 72' rolls	ASTM D 4601 Type I	A smooth surfaced, modified bitumen base ply sheet constructed with a non woven fiberglass mat/fiberglass scrim/polyester mat trilaminate reinforcement coated with an asphalt modified with an SBS elastomer.
POWERply HE Base	39 3/8" x 51'5" rolls	ASTM D 6164 Type 1 Grade S	A smooth surfaced, high elongation modified bitumen base sheet constructed with selected bitumens, modified with compatible SBS elastomers and reinforced with a non woven polyester mat.
POWERply Heavy Duty Base	3' X 36'	ASTM D 6163 Type III Grade S	A smooth surfaced high strength modified bitumen base ply sheet constructed with a non woven fiberglass mat/fiberglass scrim bilaminate reinforcement coated with an asphalt modified with an SBS elastomer.

APPROVED INSULATIONS:

TABLE 2

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
ENRGY 3	Polyisocyanurate foam insulation	Johns Manville Corp.
ENRGY 3 Plus	Polyisocyanurate foam insulation	Johns Manville Corp.
ACFoam-II	Polyisocyanurate foam insulation	Atlas Roofing Corporation
H-Shield	Polyisocyanurate foam insulation	Hunter Panels, LLC
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Building Products Company, LLC
Ultra-Max	Polyisocyanurate foam insulation	Rmax Operating, LLC
Structodek High Density Fiberboard Roof Insulation	Wood fiberboard insulation	Blue Ridge Fiberboard, Inc.
DenDeck	Silicon coated gypsum board	Georgia-Pacific Gypsum LLC
Trisotech G	Polyisocyanurate foam insulation	Tremco Inc.
High Density Wood Fiberboard	Wood fiberboard insulation	Generic
Perlite Insulation Board	Perlite insulation	Generic



APPROVED FASTENERS / ADHESIVES:**TABLE 3**

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	Dekfast 12	Insulation fastener for wood and steel decks	Various	SFS Intec, Inc.
2.	Dekfast 14	Insulation fastener for wood, steel and concrete decks	Various	SFS Intec, Inc.
3.	Dekfast 15 HS	Insulation fastener for wood, steel and concrete decks	Various	SFS Intec, Inc.
4.	Dekfast Hex Plate	Galvalume hex stress plate	2 7/8" x 3 1/4"	SFS Intec, Inc.
5.	Dekfast DekFlat Round Plastic Lock Plate	Polypropylene locking plate.	3" x 3 1/4"	SFS Intec, Inc.
6.	#12 Standard Roofgrip	Insulation fastener for wood and steel decks	Various	OMG, Inc.
7.	Accutrac Hextra	Pre-assembled Insulation fastener and plate	#12 dia. by 8 in. (203mm) max length	OMG, Inc.
8.	3 in. Round Metal Plate	Galvalume stress plate	3" round	OMG, Inc.
9.	OMG Heavy Duty	Insulation fastener	Various	OMG, Inc.
10.	ASAP RoofGrip Pre-Assembled System	Pre-assembled Insulation fastener and plate		OMG, Inc.
11.	OMG Plastic Plate	Polypropylene plastic plate	3.25" round	OMG, Inc.
12.	Polymer GypTec Insulation Plate	3.5" round galvalume AZ55 steel plate	3.5" round	OMG, Inc.
13.	OMG 3" Galvalume Steel Plate	3" round galvalume steel plate	3" round	OMG, Inc.
14.	Trufast #12 DP Fastener	Insulation fastener for steel and wood decks	Various	Altenloh, Brinck & Co. U.S., Inc.
15.	Trufast #14 HD Fastener	Insulation fastener for steel, concrete and wood decks	Various	Altenloh, Brinck & Co. U.S., Inc.
16.	Trufast #15 EHD Fastener	Insulation fastener for steel, concrete and wood decks	Various	Altenloh, Brinck & Co. U.S., Inc.
17.	Trufast 3" Metal Insulation Plate	3" round galvalume AZ55 steel plate	3" round	Altenloh, Brinck & Co. U.S., Inc.

APPROVED FASTENERS / ADHESIVES:**TABLE 3**

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
18.	Tremco #14 HD Fastener	Insulation fastener for steel, concrete and wood decks	Various	Tremco, Inc.
19.	Tremco 3" Metal Insulation Plate	3" round galvalume AZ50 steel plate	3" round	Tremco, Inc.
20.	Tremco #12 DP Fastener	Insulation fastener for steel and wood decks	Various	Tremco, Inc.
21.	Tremco #15 EHD Fastener	Insulation fastener for steel, concrete and wood decks	Various	Tremco, Inc.
22.	Millennium One Step Foamable Adhesive	Polyurethane two component high rise insulation adhesive	1.5 liters	Adco Products, Inc. d.b.a. Royal Adhesives & Sealants, Inc.
23.	Millennium PG-1 Pump Grade Adhesive	Polyurethane two component high rise insulation adhesive	1.5 liters	Adco Products, Inc. d.b.a. Royal Adhesives & Sealants, Inc.
24.	Millennium One Step Green Foamable Adhesive	Polyurethane two component high rise insulation adhesive	1.5 liters	Adco Products, Inc. d.b.a. Royal Adhesives & Sealants, Inc.

EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Factory Mutual Research Corporation	2Y5A2.AM	FM 4470	11/16/94
	0Z8A3.AM	FM 4470	06/13/95
	2Y9A5.AM	FM 4470	11/13/95
	1B0A5.AM	FM 4470	11/06/97
	3003102	FM 4470	10/04/99
	2D1A8.AM	FM 4470	07/27/00
	0D0A9.AM	FM 4470	08/01/00
	3010780	FM 4470	04/18/02
	3005298	FM 4470	05/10/02
	3015502	FM 4470	12/30/04
	3024975	FM 4470	11/21/06
	3021358	FM 4470	11/19/08
	3043423	FM 4470	12/14/11
	3045534	FM 4470	04/04/12
	3045650	FM 4470	09/27/12
	3047916	FM 4470	12/13/12
PRI Asphalt Technologies, Inc.	TRE-15-02-01	Physical Properties	05/25/99
Underwriters Laboratories, Inc.	R4170	UL790	01/01/95
IRT of S. Florida	00012	TAS 114	08/03/00



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EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
PRI Construction Materials Technologies	TRE-056-02-01	ASTM D 4601	07/25/12
	TRE-057-02-01	ASTM D 4601	07/25/12
	TRE-058-02-01	ASTM D 4601	07/25/12
	TRE-060-02-01	ASTM D 5726	07/25/12
	TRE-061-02-01	ASTM D 6163	10/01/12
	TRE-062-02-01	ASTM D 6164	10/04/12
	TRE-075-02-01	ASTM 6152	12/04/12
	TRE-068-02-01	ASTM D 3019	12/05/12
	TRE-069-02-01	ASTM D 3019	12/05/12
	TRE-070-02-01	ASTM D 4479	12/05/12
	TRE-071-02-01	ASTM D 3019	12/05/12
	TRE-072-02-01	ASTM D 5100	12/05/12
	TRE-073-02-01	ASTM D 312	12/05/12
	TRE-074-02-01	ASTM D 312	12/05/12
	TRE-076-02-01	ASTM D 6152	12/05/12
	TRE-077-02-01	ASTM D 1227	12/05/12
	TRE-078-02-01	ASTM D 1227	12/05/12
	TRE-079-02-01	ASTM D 41	12/05/12
	TRE-080-02-01	ASTM D 6083	12/05/12
	TRE-081-02-01	ASTM D 2824	12/05/12
	TRE-082-02-01	ASTM D 4586	12/05/12
	TRE-083-02-01	ASTM D 2824	12/05/12
	TRE-106-02-01	ASTM D 2178	12/19/12
	TRE-107-02-01	ASTM D 2178	12/19/12

DECK STRESS ANALYSIS CALCULATIONS/REPORTS

<u>Engineer/Agency</u>	<u>Identifier</u>	<u>Assemblies:</u>	<u>Date</u>
FM Approval Deck Limitation	RoofNav Listing	B(3), B(4)	01/01/13



APPROVED ASSEMBLIES:

Membrane Type:	BUR
Deck Type 2I:	Steel, Insulated
Deck Description:	18-22 ga. 33 ksi. Steel
System Type B(1):	Base layer of insulation mechanically fastened, top layer adhered with approved asphalt or adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Trisotech G, ACFoam-II Minimum 1.3" thick	1, 2, 3, 6, 9	1:2 ft ²
ENRGY 3 Minimum 1.4" thick	1, 2, 3, 6, 7, 9, 14, 15, 16, 18, 20, 21	1:3 ft ²
ENRGY 3 Plus Minimum 1.5" thick	1, 2, 3, 6, 7, 9, 14, 15, 16, 18, 20, 21	1:3 ft ²
ISO 95 + GL Minimum 1.4" thick	1, 2, 3, 6, 7, 9, 14, 15, 16, 18, 20, 21	1:4 ft ²
Approved Perlite Insulation Board Minimum ¾" thick	1, 2, 3, 9	1:2 ft ²
Approved High Density Wood Fiberboard Minimum ½" thick	1, 2, 3, 6, 7, 14, 15, 16, 18, 20, 21	1:4 ft ²

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

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Trisotech G, ACFoam-II Minimum 1.3" thick	N/A	N/A
ENRGY 3 Minimum 1.4" thick	N/A	N/A
ENRGY 3 Plus Minimum 1.5" thick	N/A	N/A



ISO 95 + GL

Minimum 1.4" thick

N/A

N/A

Approved Perlite Insulation Board

Minimum ¾" thick

N/A

N/A

Approved High Density Wood Fiberboard

Minimum ½" thick

N/A

N/A

Note: Apply 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 ft² or in FAS-N-FREE insulation adhesive applied in ribbons at a coverage rate of 1.5 gallons per square or in one of the following: Tremco Low Rise Foam Insulation Adhesive, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco Low Rise Foam Insulation Adhesive Green, Millennium One Step Foamable Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium One Step Green Foamable Adhesive applied in ¾" wide ribbons spaced 12" o.c. Please 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 face down.

Base Sheet:

Optional) One ply of BURmastic Composite Ply, BURmastic Modified Composite Ply, BURmastic Composite Ply Premium, BURmastic Modified Premium Composite Ply, BURmastic Supreme Composite Ply, BURmastic Modified Supreme Composite Ply, POWERply Heavy Duty Base, POWERply HE Base, POWERply HT Base, BURmastic Glass Ply or BURmastic Glass Ply 28 lb or approved ASTM D 4601 fiberglass base sheet adhered to substrate with THERMastic Adhesive, POWERply Modified Hot Melt, Premium III, Premium IV or type III asphalt.

Ply Sheet:

Three or more plies of THERMglass Type IV, THERMglass VI or PolyTHERM Roofing Ply sheet or approved ASTM D 2178 Type IV or Type VI ply sheet adhered to substrate with THERMastic Adhesive, POWERply Modified Hot Melt, Premium III, Premium IV or Type III asphalt at a rate of 30 to 35 lb/sq..

Surfacing:

(Required) Install one of the following:

1. Two part surfacing consisting of 4-5 gal./sq. of Tremlastic SP surfaced with Double Duty Aluminum coating at ¾ gal./sq or ICE Coating applied in a single coat at a maximum coverage rate of 4 gal. / sq. or One Coat Aluminum applied in one coat at a maximum coverage rate of 2.5- 3 gal. / sq.
2. Flood coat of THERMastic Adhesive and gravel at application rates of 3.5 gal./sq. and 400 lbs./sq., respectively.
3. Flood coat of BURmastic Adhesive with applications rates of 4-5 gal./sq. or Premium III, Premium IV or Type III asphalt at 30 to 35 lb./sq. and gravel at 400 lbs/sq., respectively.
4. Min. 200 lbs white marble applied in Rock-It Adhesive or Rock-It WB Adhesive at 5 gal. / sq.
5. Prime surface with TREMprime WB primer at a rate of 200-400 sqs per gallon. Apply ICE Coating in two coats at a maximum coverage of 2 gal. / sq. or a single coat at a maximum coverage rate of 4 gal. / sq.
6. Apply One Coat Aluminum to surface with a minimum coverage rate of 2.5-3 gal. / sq.

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



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Membrane Type: BUR
Deck Type 2I: Steel, Insulated
Deck Description: 18-22 ga. 33 ksi. Steel
System Type B(2): Base layer of insulation mechanically fastened, top layer adhered with approved asphalt or adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Trisotech G, AC Foam-II Minimum 1.3" thick	1, 2, 3, 6, 9	1:4 ft ²
ENRGY 3 Minimum 1.4" thick	1, 2, 3, 6, 7, 9, 14, 15, 16, 18, 20, 21	1:3 ft ²
ENRGY 3 Plus Minimum 1.5" thick	1, 2, 3, 6, 7, 9, 14, 15, 16, 18, 20, 21	1:3 ft ²
ISO 95 + GL Minimum 1.4" thick	1, 2, 3, 6, 7, 14, 15, 16, 18, 20, 21	1:4 ft ²
Approved Perlite Insulation Board Minimum ¾" thick	1, 2, 3, 9	1:2 ft ²
Approved High Density Wood Fiberboard Minimum ½" thick	1, 2, 3, 6, 9, 14, 15, 16, 18, 20, 21	1:4 ft ²

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

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Trisotech G, AC Foam-II Minimum 1.3" thick	N/A	N/A
ENRGY 3 Minimum 1.4" thick	N/A	N/A
ENRGY 3 Plus Minimum 1.5" thick	N/A	N/A



ISO 95 + GL

Minimum 1.4" thick

N/A

N/A

Approved Perlite Insulation Board

Minimum ¾" thick

N/A

N/A

Approved High Density Wood Fiberboard

Minimum ½" thick

N/A

N/A

Note: Apply 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 ft² or in FAS-N-FREE insulation adhesive applied in ribbons at a coverage rate of 1.5 gallons per square or in one of the following: Tremco Low Rise Foam Insulation Adhesive, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco Low Rise Foam Insulation Adhesive Green, Millennium One Step Foamable Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium One Step Green Foamable Adhesive applied in ¾" wide ribbons spaced 12" o.c. Please 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 face down.

Base Sheet:

(Optional) One ply of BURmastic Composite Ply, BURmastic Modified Composite Ply, BURmastic Composite Ply Premium, BURmastic Modified Premium Composite Ply, BURmastic Supreme Composite Ply, BURmastic Modified Supreme Composite Ply, POWERply Heavy Duty Base, POWERply HE Base, POWERply HT Base, BURmastic Glass Ply or BURmastic Glass Ply 28 lb or approved ASTM D 4601 fiberglass base sheet adhered to the substrate with BURmastic Adhesive or BURmastic Adhesive SF at 2.5-3 gal./sq.

Ply Sheet:

Two or more plies of BURmastic Composite Ply, BURmastic Modified Composite Ply, BURmastic Composite Ply Premium, BURmastic Modified Premium Composite Ply, BURmastic Supreme Composite Ply, BURmastic Modified Supreme Composite Ply, POWERply Heavy Duty Base, POWERply HE Base, POWERply HT Base, BURmastic Glass Ply or BURmastic Glass Ply 28 lb or approved ASTM D 4601 fiberglass base/ply sheet adhered in BURmastic Adhesive or BURmastic Adhesive SF at a rate of 2.5-3 gal./sq.

Surfacing:

(Required) Install one of the following:

1. Two part surfacing consisting of 4-5 gal./sq. of Tremlastic SP surfaced with Double Duty Aluminum coating at ¾ gal./sq or ICE Coating applied in a single coat at a maximum coverage rate of 4 gal. / sq. or One Coat Aluminum applied in one coat at a maximum coverage rate of 2.5- 3 gal. / sq.
2. Flood coat of THERMastic Adhesive and gravel at application rates of 3.5 gal./sq. and 400 lbs./sq., respectively.
3. Flood coat of BURmastic Adhesive with applications rates of 4-5 gal./sq. or Premium III, Premium IV or Type III asphalt at 30 to 35 lb/sq and gravel at 400 lbs/sq., respectively.
4. Min. 200 lbs white marble applied in Rock-It or Rock-It WB Adhesive at 5 gal. / sq.
5. Prime surface with TREMprime WB primer at a rate of 200-400 sqs per gallon. Apply ICE Coating in two coats at a maximum coverage of 2 gal. / sq. or a single coat at a maximum coverage rate of 4 gal. / sq.

6. Apply One Coat Aluminum to surface with a minimum coverage rate of 2.5-3 gal. / sq.

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



Membrane Type: BUR

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga., Type B, Grade 33 steel deck fastened 6" o.c. with Traxx/5 fasteners into steel supports spaced maximum 6 ft. o.c. Deck side laps are attached with Traxx/1 fasteners spaced max. 30" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table

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

All General and System Limitations apply.

One or more layers of any of the following insulations.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Trisotech G, AC Foam-II Minimum 2" thick	15, 17, 18, 19	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).

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Structodek High Density Fiberboard Roof Insulation Minimum ½" thick	N/A	N/A

Note: Apply 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 ft² or in FAS-N-FREE insulation adhesive applied in ½" to ¾" wide ribbons at a coverage rate of 1.5 gal./sq. or in one of the following: Tremco Low Rise Foam Insulation Adhesive, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco Low Rise Foam Insulation Adhesive Green, Millennium One Step Foamable Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium One Step Green Foamable Adhesive applied in ¾" wide ribbons spaced 12" o.c. Please 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 face down.

Base Sheet: (Optional) One ply of BURmastic Composite Ply, BURmastic Modified Composite Ply, BURmastic Composite Ply Premium, BURmastic Modified Premium Composite Ply, BURmastic Supreme Composite Ply, BURmastic Modified Supreme Composite Ply, POWERply Heavy Duty Base, POWERply HE Base, POWERply HT Base, BURmastic Glass Ply or BURmastic Glass Ply 28 lb adhered to substrate with THERMastic Adhesive, POWERply Modified Hot Melt, Premium III, Premium IV or type III asphalt.



Ply Sheet: Three or more plies of THERMglass Type IV, THERMglass VI or PolyTHERM Roofing Ply sheet adhered to substrate with THERMastic Adhesive, POWERply Modified Hot Melt, Premium III, Premium IV or Type III asphalt at a rate of 30 to 35 lb/sq.

Surfacing: (Required) Install one of the following:

1. Two part surfacing consisting of 4-5 gal./sq. of Tremlastic SP surfaced with Double Duty Aluminum coating at $\frac{3}{4}$ gal./sq. or ICE Coating applied in a single coat at a maximum coverage rate of 4 gal. / sq. or One Coat Aluminum applied in one coat at a maximum coverage rate of 2.5- 3 gal. / sq.
2. Flood coat of THERMastic Adhesive and gravel at application rates of 3.5 gal./sq. and 400 lbs./sq., respectively.
3. Flood coat of BURmastic Adhesive with applications rates of 4-5 gal./sq. or Premium III, Premium IV or Type III asphalt at 30 to 35 lb/sq and gravel at 400 lbs/sq., respectively.
4. Min. 200 lbs white marble applied in Rock-It Adhesive or Rock-It WB Adhesive at 5 gal. / sq.
5. Prime surface with TREMprime WB primer at a rate of 200-400 sqs per gallon. Apply ICE Coating in two coats at a maximum coverage of 2 gal. / sq. or a single coat at a maximum coverage rate of 4 gal. / sq.
6. Apply One Coat Aluminum to surface with a minimum coverage rate of 2.5-3 gal. / sq.

Maximum Design Pressure: -60.0 psf. (See General Limitation #7.)

Original system supported by:

FM 1B0A5.AM, Section 4.1 (12x24 ft) steel deck (**MDP: -60 psf**) – System will be limited to -60 psf per tested report.

- Section 6.1.1 shows the steel deck description.
- RoofNav 43988-50173-0: Used to verify steel deck details and design pressure.



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Membrane Type: BUR

Deck Type 2I: Steel, Insulated

Deck Description: 18-22 ga., Type B, Grade 33 steel deck fastened 6" o.c. with Traxx/5 fasteners into steel supports spaced maximum 6 ft. o.c. Deck side laps are attached with Traxx/1 fasteners spaced max. 30" o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table

System Type B(4): Base layer of insulation mechanically fastened, top layer adhered with approved asphalt or adhesive.

All General and System Limitations apply.

One or more layers of any of the following insulations.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Trisotech G, AC Foam-II, H-Shield Minimum 2" thick	14, 15, 17, 18, 19, 20	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).

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Structodek High Density Fiberboard Roof Insulation Minimum ½" thick	N/A	N/A

Note: Apply 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 ft² or in FAS-N-FREE insulation adhesive applied in ½" to ¾" wide ribbons at a coverage rate of 1.5 gal./sq. or in one of the following: Tremco Low Rise Foam Insulation Adhesive, Tremco Low Rise Foam Insulation Adhesive (BG), Tremco Low Rise Foam Insulation Adhesive Green, Millennium One Step Foamable Adhesive, Millennium PG-1 Pump Grade Adhesive or Millennium One Step Green Foamable Adhesive applied in ¾" wide ribbons spaced 12" o.c. Please 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 face down.

Base Sheet: (Optional) One ply of BURmastic Composite Ply, BURmastic Modified Composite Ply, BURmastic Composite Ply Premium, BURmastic Modified Premium Composite Ply, BURmastic Supreme Composite Ply, BURmastic Modified Supreme Composite Ply, POWERply Heavy Duty Base, POWERply HE Base, POWERply HT Base, BURmastic Glass Ply or BURmastic Glass Ply 28 lb adhered to the substrate with BURmastic Adhesive or BURmastic Adhesive SF at 2.5-3 gal./sq.



Ply Sheet: Two or more plies of BURmastic Composite Ply, BURmastic Modified Composite Ply, BURmastic Composite Ply Premium, BURmastic Modified Premium Composite Ply, BURmastic Supreme Composite Ply, BURmastic Modified Supreme Composite Ply, POWERply HT Base, BURmastic Glass Ply or BURmastic Glass Ply 28 lb adhered in BURmastic Adhesive or BURmastic Adhesive SF at a rate of 2.5-3 gal./sq.

Surfacing: (Required) Install one of the following:

1. Two part surfacing consisting of 4-5 gal./sq. of Tremlastic SP surfaced with one of the following:
 - a) Double Duty Aluminum coating at $\frac{3}{4}$ gal./sq.
 - b) 60 lbs. #11 3M roofing granule's in wet Tremlastic SP.
 - c) Crushed Stone, nominal 3/64"-3/8" at 240lbs./sq. in wet Tremlastic SP.
 - d) ICE Coating applied in a single coat at a maximum coverage rate of 4 gal. / sq.
 - e) One Coat Aluminum applied in one coat at a maximum coverage rate of 2.5- 3 gal. / sq.
2. Flood coat of BURmastic Adhesive and gravel at application rates of 5-6 1/5 gal./sq. and 400 lbs./sq., respectively.
3. Min. 200 lbs white marble applied in Rock-It Adhesive or Rock-It WB Adhesive at 5 gal. / sq.
4. Prime surface with TREMprime WB primer at a rate of 200-400 sqs per gallon. Apply ICE Coating in two coats at a maximum coverage of 2 gal. / sq. or a single coat at a maximum coverage rate of 4 gal. / sq.
5. Apply One Coat Aluminum to surface with a minimum coverage rate of 2.5-3 gal. / sq.

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

Original system supported by:

FM 3005298, Conclusion 9.1.1 (12x24 ft) steel deck (**MDP: -52.5 psf**) – System will be limited to -52.5 psf per tested report.

- RoofNav 45906-50660-0 (w/ Double Duty Aluminum): Used to verify steel deck details and design pressure.
- RoofNav 45908-50658-0 (w/ ICE Coating): Used to verify steel deck details and design pressure.
- RoofNav 45910-50657-0 (w/ Alumanation 301): Used to verify steel deck details and design pressure.



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Membrane Type: BUR
Deck Type 2I: Steel, Insulated
Deck Description: 18-22 ga. 33 ksi. steel
System Type C(1): All layers of insulation simultaneously fastened.

All General and System Limitations apply.

One or more layers of any of the following insulations.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, Trisotech G, ENRGY 3, ENRGY 3 Plus Minimum 1.3" thick	N/A	N/A
Ultra-Max Minimum 1.4" thick	N/A	N/A
Approved High Density Wood Fiberboard Minimum ½" thick	N/A	N/A
Approved Perlite Insulation Board Minimum ¾" thick	N/A	N/A

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

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Trisotech G, ACFoam-II Minimum 1.3" thick	1, 2, 3, 6, 9	1:4 ft ²
ENRGY 3 Minimum 1.4" thick	1, 2, 3, 6, 7, 9, 14, 15, 16, 18, 20, 21	1:3 ft ²
ENRGY 3 Plus Minimum 1.5" thick	1, 2, 3, 6, 7, 9, 14, 15, 16, 18, 20, 21	1:3 ft ²
ISO 95 + GL Minimum 1.4" thick	1, 2, 3, 6, 7, 9, 14, 15, 16, 18, 20, 21	1:4 ft ²
Approved Perlite Insulation Board Minimum ¾" thick	1, 2, 3, 9	1:2 ft ²
Approved High Density Wood Fiberboard Minimum ½" thick	1, 2, 3, 6, 7, 9, 14, 15, 16, 18, 20, 21	1:4 ft ²



Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

- Base Sheet:** (Optional) One ply of BURmastic Composite PlyBURmastic Modified Composite Ply, BURmastic Composite Ply Premium, BURmastic Modified Premium Composite Ply, BURmastic Supreme Composite Ply, BURmastic Modified Supreme Composite Ply, POWERply Heavy Duty Base, POWERply HE Base, POWERply HT Base, BURmastic Glass Ply or BURmastic Glass Ply 28 lb or approved ASTM D 4601 fiberglass base sheet adhered to substrate with THERMastic Adhesive, POWERply Modified Hot Melt, BURmastic Adhesive, Premium III, Premium IV or type III asphalt.
- Ply Sheet:** Three or more plies of THERMglass Type IV, THERMglass VI or PolyTHERM Roofing Ply sheeter approved ASTM D 2178 Type IV or Type VI ply sheet adhered to substrate with THERMastic Adhesive, POWERply Modified Hot Melt, Premium III, Premium IV or Type III asphalt at a rate of 30 to 35 lb/sq.
- Surfacing:** (Required) Install one of the following:
1. Two part surfacing consisting of 4-5 gal./sq. of Tremlastic SP surfaced with Double Duty Aluminum coating at $\frac{3}{4}$ gal./sq. or ICE Coating applied in a single coat at a maximum coverage rate of 4 gal. / sq. or One Coat Aluminum applied in one coat at a maximum coverage rate of 2.5- 3 gal. / sq.
 2. Flood coat of THERMastic Adhesive and gravel at application rates of 3.5 gal./sq. and 400 lbs./sq., respectively.
 3. Flood coat of BURmastic Adhesive with applications rates of 4-5 gal./sq. or Premium III, Premium IV or Type III asphalt at 30 to 35 lb/sq and gravel at 400 lbs/sq., respectively.
 4. Min. 200 lbs white marble applied in Rock-It Adhesive or Rock-It WB Adhesive at 5 gal. / sq.
 5. Prime surface with TremPrime WB at a rate of 200-400 sqs per gallon. Apply ICE coating in two coats at a maximum coverage of 2 gal. / sq. or a single coat at a maximum coverage rate of 4 gal. / sq.
 6. Apply One Coat Aluminum to surface with a minimum coverage rate of 2.5-3 gal. / sq.
- Maximum Design Pressure:** -45 psf. (See General Limitation #9.)



Membrane Type: BUR
Deck Type 2I: Steel, Insulated
Deck Description: 18-22 ga. 33 ksi. steel
System Type C(2): All layers of insulation simultaneously fastened.

All General and System Limitations apply.

One or more layers of any of the following insulations.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, Trisotech G, ENRGY 3, ENRGY 3 Plus Minimum 1.3" thick	N/A	N/A
Ultra-Max Minimum 1.4" thick	N/A	N/A
Approved High Density Wood Fiberboard Minimum ½" thick	N/A	N/A
Approved Perlite Insulation Board Minimum ¾" thick	N/A	N/A

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

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Trisotech G, ACFoam-II Minimum 1.3" thick	1, 2, 3, 6, 9	1:4 ft ²
ENRGY 3 Minimum 1.4" thick	1, 2, 3, 6, 7, 9, 14, 15, 16, 18, 20, 21	1:3 ft ²
ENRGY 3 Plus Minimum 1.5" thick	1, 2, 3, 6, 7, 9, 14, 15, 16, 18, 20, 21	1:3 ft ²
ISO 95 + GL Minimum 1.4" thick	1, 2, 3, 6, 7, 9, 14, 15, 16, 18, 20, 21	1:4 ft ²
Approved Perlite Insulation Board Minimum ¾" thick	1, 2, 3, 9	1:2 ft ²
Approved High Density Wood Fiberboard Minimum ½" thick	1, 2, 3, 6, 7, 9, 14, 15, 16, 18, 20, 21	1:4 ft ²



Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Insulation fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

- Base Sheet:** (Optional) One ply of BURmastic Composite Ply, BURmastic Modified Composite Ply, BURmastic Composite Ply Premium, BURmastic Modified Premium Composite Ply, BURmastic Supreme Composite Ply, BURmastic Modified Supreme Composite Ply, POWERply Heavy Duty Base, POWERply HE Base, POWERply HT Base, BURmastic Glass Ply or BURmastic Glass Ply 28 lb or approved ASTM D 4601 fiberglass base sheet adhered to the substrate with BURmastic Adhesive or BURmastic Adhesive SF at 2.5-3 gal./sq.
- Ply Sheet:** Two or more plies of BURmastic Composite Ply, BURmastic Modified Composite Ply, BURmastic Composite Ply Premium, BURmastic Modified Premium Composite Ply, BURmastic Supreme Composite Ply, BURmastic Modified Supreme Composite Ply, POWERply HT Base, BURmastic Glass Ply or BURmastic Glass Ply 28 lb or approved ASTM D 4601 fiberglass base/ply sheet adhered in BURmastic Adhesive or BURmastic Adhesive SF at a rate of 2.5-3 gal./sq.
- Surfacing:** (Required) Install one of the following:
1. Two part surfacing consisting of 4-5 gal./sq. of Tremlastic SP surfaced with Double Duty Aluminum coating at $\frac{3}{4}$ gal./sq. or ICE Coating applied in a single coat at a maximum coverage rate of 4 gal. / sq. or One Coat Aluminum applied in one coat at a maximum coverage rate of 2.5- 3 gal. / sq.
 2. Flood coat of THERMastic Adhesive and gravel at application rates of 3.5 gal./sq. and 400 lbs./sq., respectively.
 3. Flood coat of BURmastic Adhesive with applications rates of 4-5 gal./sq. or Premium III, Premium IV or Type III asphalt at 30 to 35 lb/sq and gravel at 400 lbs/sq., respectively.
 4. Min. 200 lbs white marble applied in Rock-It Adhesive or Rock-It WB Adhesive at 5 gal. / sq.
 5. Prime surface with TremPrime WB at a rate of 200-400 sqs per gallon. Apply ICE coating in two coats at a maximum coverage of 2 gal. / sq. or a single coat at a maximum coverage rate of 4 gal. / sq.
 6. Apply One Coat Aluminum to surface with a minimum coverage rate of 2.5-3 gal. / sq.
- Maximum Design Pressure:** -45 psf. (See General Limitation #9.)



STEEL DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



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