



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

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

NOTICE OF ACCEPTANCE (NOA)

**Tremco Inc.
3735 Green Road
Beachwood, OH 44122**

SCOPE:

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

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

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

DESCRIPTION: Tremco Built up over Wood

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

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

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

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

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

This NOA consists of pages 1 through 20.
The submitted documentation was reviewed by Frank Zuloaga, RRC



**NOA No.: 02-0115.04
Expiration Date: 03/14/07
Approval Date: 03/14/02
Page 1 of 20**

ROOFING ASSEMBLY APPROVAL

Category:	Membrane Roofing System
Sub-Category:	Built-Up Roofing
Sub-Type:	Fiberglass
Deck Type:	Wood
Maximum Design Pressures:	-77.5 sf
Maximum Fire Classification	See General Limitation #1

TABLE 1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

Product	Dimensions	Test Specification	Product Description
BURMastic® Base Sheet Adhesive or Solvent Free Base Sheet Adhesive	5 gallon	Proprietary	Cold process adhesive used for adhering BURMastic Glass Ply or Composite Ply to Approved Insulations
BURMastic® Adhesive	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® FR		Proprietary	Cold applied, fire rated flood coat
BURMastic® Glass Ply	36" x 72'	ASTM D 4601 Type II	Asphalt impregnated polyester/glass/polyester composite for use in conventional and modified bitumen built-up roofing
Double-Duty Aluminum™ Fas-n-Free® Adhesive	5 gallon	ASTM D 2824 Proprietary	Aluminum pigmented roof coating. One part, solvent free adhesive used for adhering Approved insulations to Approved substrates
Polarcote FR®	5 and 55 gallon	Proprietary	Fire retardant, acrylic/polymer blend emulsion
Improved Polarcote® Poly-THERM® Roofing Ply	5 and 55 gallon 10 squares per roll 39¾" wide	Proprietary Proprietary	Reflective, white elastomeric roof coating Continuous filament, spunbonded polyester ply sheet for use in conventional and modified bitumen built-up roof systems
Premium III™	100 lb.	ASTM D 312	Type III asphalt for use in built-up roofing systems
THERMastic® Adhesive	60 lb.	Proprietary	All purpose roof cement
THERMglass®		ASTM D 2178 Type VI	Type VI asphalt impregnated glass felt for use in conventional and modified bitumen built-up roof systems
TREMprime™ Q.D.	1, 5 or 55 gallon	ASTM D 41	Asphalt based roofing primer
Therm MB FR	100 sq. ft./roll	ASTM D 5147	Modified bitumen, glass reinforced, fire resistant membrane
Therm™ 100	System		Tremco built-up roofing system using Thermastic and Thermglass



Therm™ 200	System	Tremco built-up roofing system using Polytherm and Thermastic
Tremprime® WB	5 gallon	Proprietary Water based roofing primer

**TABLE 2
TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS**

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
Pyrox	Various	PA 110	Polyisocyanurate foam insulation	Apache Products Co. (With current NOA)
ACFoam II	Various	PA 110	Polyisocyanurate foam insulation	Atlas Energy Products (With current NOA)
Hy-Tec and Hy-Tec 2	Various	PA 110	Fiberglass roof insulation	Celotex Corp. (With current NOA)
Hy-Therm AP	Various	PA 110	Polyisocyanurate foam insulation	Celotex Corp. (With current NOA)
Hy-Therm Nail-Line	Various	PA 110	Polyisocyanurate foam insulation with nailing surface	Celotex Corp. (With current NOA)
Anchorbond Fastener		PA 114	Insulation fastening assembly	Construction Fasteners, Inc. (With current NOA)
DekFast Fastener		PA 114	Insulation fastening assembly	Construction Fasteners, Inc. (With current NOA)
Gripdek Fastener		PA 114	Insulation fastening assembly	ITW Buildex (With current NOA)
Hextra Fastener		PA 114	Insulation fastening assembly	ITW Buildex (With current NOA)
Roofgrip Fastener		PA 114	Insulation fastening assembly for concrete, steel and wood decks	ITW Buildex (With current NOA)
ISO 95+	Various	PA 110	Polyisocyanurate foam insulation	International Permalite (With current NOA)
E'NRG'Y 2 E'NRG'Y 2 Plus	Various	PA 110	Polyisocyanurate foam insulation	Johns Manville (NRG) (With current PCA)
ISORoc	Various	PA 110	Polyisocyanurate and rockwool composite insulation	Johns Manville (NRG) (With current NOA)
Con-Tite Fastener		PA 114	Insulation fastening assembly	Olympic Fasteners (With current NOA)
Olympic Fastener		PA 114	Insulation fastening assembly	Olympic Fasteners (With current NOA)
GlasFast Fastener		PA 114	Insulation fastening assembly	Johns Manville (With current NOA)
Multi-Max	Various	PA 110	Polyisocyanurate foam insulation	R-Max (With current NOA)



NOA No.: 02-0115.04
Expiration Date: 03/14/07
Approval Date: 03/14/02
Page 3 of 20

HD Insulfixx Fastener		PA 114	Insulation fastening assembly for concrete, steel and wood decks	SFS Stadler (With current NOA)
ESI Fastening System		PA 114	Insulation fastening assembly	SFS Stadler (With current NOA)
Insulfixx Fastener		PA 114	Insulation fastening assembly	SFS Stadler (With current NOA)
Fiberglas Insulation	Various	PA 110	Fiberglass roof insulation	Johns Manville (With current NOA)
UltraGard Gold	Various	PA 110	Polyisocyanurate foam insulation	Johns Manville (With current NOA)
Fiberglas	Various	PA 110	Fiberglass roof insulation	Johns Manville / Owens Corning (With current NOA)
Fiber Base		PA 110	Fiberglass roof insulation	Temple (With current NOA)
Tru-Fast Fastener		PA 114	Insulation fastening assembly	Tru-Fast (With current NOA)
Edge Metal	3" min. flange	ASTM A 525	26 ga. corrosion resistant edge metal system for termination	Generic (With current NOA)
Coal tar pitch		ASTM D 450	Hot applied coal tar based bitumen adhesive used in conventional and modified built-up roof systems	Generic (With current NOA)
Fibrated Aluminum Roof Coating		ASTM D 2824 Type III	Fibrated aluminum roof coating	Generic (With current NOA)
High Density Wood Fibeboard	Various	PA 110	Wood fiberboard insulation	Generic (With current NOA)
Perlite		PA 110	Perlite insulation	Generic (With current NOA)
Type G2 Base Sheet		ASTM D 4601	Asphalt impregnated and coated fiberglass base sheet	Generic (With current NOA)
Type II, III & IV Asphalt		ASTM D 312	Hot applied bitumen adhesive	Generic (With current NOA)
Type VI Roofing Felt		ASTM D 2178	Type VI asphalt impregnated glass felt	Generic (With current NOA)
Valley Metal	Min. 26 ga. 12" wide	ASTM D 525	Galvanized metal valley flashings	Generic (With current NOA)



APPROVED FASTENERS

<u>Product</u>	<u>Description</u>	<u>Dimensions</u>	<u>Manufacturer</u>
DekFast (with plate)	Carbon steel, Senti (black)	Various	Construction Fasteners (with current NOA)
Olympic (with plate)	Carbon steel, CR-10 or Answer Coating (black)	Various	Olympic Fasteners (with current NOA)
Olympic (with G2 plate)	Carbon steel, CR-10 or Answer Coating (black)	Various	Olympic Fasteners (with current NOA)
Anchorbond (with plate)	Carbon steel, Senti (black)	Various	The Celotex Corp. (with current NOA)
Insul-fixx (with plate)	Steel, Tuff-Tite (black or purple)	Various	SFS Stadler Inc. (with current NOA)
Accutrak Hextra (with plate)	Carbon Steel, SPEX (black) or Climaseal (blue)	#12 dia. by 8 in. (203mm) max length	ITW Buildex Corp. (with current NOA)
Roofgrip (with plate)	Carbon Steel, SPEX (blue,gray) or Climaseal (blue)	Various	ITW Buildex Corp. (with current NOA)
Tru-Fast (with plate)	Carbon Steel Tru-Kote coating	Various	The Tru-Fast Corp. (with current NOA)
Glasfast (with plate)	Carbon Steel with SPEX (black) coating	Various	Johns Manville (with current NOA)

EVIDENCE SUBMITTED

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Applied Research Laboratories	27076	Physical properties	
Construction Research Laboratories	4109	Uplift Resistance	05/19/84
Factory Mutual Research Corporation	J.I. #0P9A9.AM	Wind Uplift Classification	10/27/88
Factory Mutual Research Corporation	J.I. #0R9A6.AM	Wind Uplift Classification	01/02/90
Factory Mutual Research Corporation	J.I. #2Y5A2.AM	Wind Uplift Classification	11/16/94
Factory Mutual Research Corporation	J.I. #1T6A9.AM	Wind Uplift Classification	08/24/91
Factory Mutual Research Corporation	J.I. #0T3Q9.AM	Wind Uplift Classification	10/01/91
Factory Mutual Research Corporation	J.I. #0Z8A3.AM	Wind Uplift Classification	06/13/95
Factory Mutual Research Corporation	1995 FMRC	Insulation and fastener requirements	1/01/95
Underwriters Laboratories, Inc.	R4170	Fire Classification	1/01/95
Exterior Research & Design, LLC.	4544.07.96-1	Wind Uplift PA 114	07/30/96



APPROVED SYSTEMS

Deck Type 1I: Wood, Insulated, New Construction

Deck Description: 1 9/32" or greater plywood or wood plank

System Type A(1): Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
One or more layers of any of the following insulations:		
E'NRG'Y-2, ACfoam II, Multi-Max, Multi-Max FA, Pyrox, Whiteline, Isoroc, E'NRG'Y-2 Plus Minimum: 1.5" thick	N/A	N/A

<u>Insulation Base or Top Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
Isoroc, E'NRG'Y-2 Plus Minimum: 1.5" thick	N/A	N/A
High Density Wood Fiberboard Minimum: 1/2" thick	N/A	N/A
Dens Deck Minimum: 1/4" thick	N/A	N/A

Note: Optional insulation shall be adhered to the anchor sheet in full moppings of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 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. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down .

Anchor Sheet: One ply of BURMastic Composite Ply mechanically attached to the wood deck using 11 ga. annular ring shank nails and 1-5/8" tin caps spaced 6" o.c. in the lap and two rows staggered in the center of the sheet, 9" o.c.

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



Ply Sheet: Three or four 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: None.

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.
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: -77.5 psf, (See General Limitation #9.)



Deck Type 1I: Wood, Insulated, New Construction

Deck Description: ¹⁹/₃₂" or greater plywood or wood plank

System Type A (2): Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
One or more layers of any of the following insulations: E'NRG'Y-2, ACfoam II, Multi-Max, Multi-Max FA, Pyrox, Whiteline, Isoroc, E'NRG'Y-2 Plus Minimum: 1.5" thick	N/A	N/A

<u>Insulation Base or Top Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
Isoroc, E'NRG'Y-2 Plus Minimum: 1.5" thick	N/A	N/A
High Density Wood Fiberboard Minimum: ½" thick	N/A	N/A
Dens Deck Minimum: ¼" thick	N/A	N/A

Note: Optional insulation shall be adhered to the anchor sheet in full moppings of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 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. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down .

Anchor Sheet: One ply of BURmastic Composite Ply mechanically attached to the wood deck using 11 ga. annular ring shank nails and 1-⁵/₈" tin caps spaced 6" o.c. in the lap and two rows staggered in the center of the sheet, 9" o.c.

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

Ply Sheet: Three or four 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



Capsheet: None.

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 or Crushed Stone, nominal $\frac{3}{64}$ "- $\frac{3}{8}$ " at 240lbs./sq. in wet Tremlastic.
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: -77.5 psf; (See General Limitation #9.)



NOA No.: 02-0115.04
Expiration Date: 03/14/07
Approval Date: 03/14/02
Page 9 of 20

Deck Type 1I: Wood, Insulated, New Construction

Deck Description: ¹⁹/₃₂" or greater plywood or wood plank

System Type B(1): 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>Fastener Type</u>
AC-Foam II Minimum: 1.3" thick	1:3	See any approved fastener in table 3
E'NRG'Y 2 Minimum: 1.4" thick	1:3 1:3 1:3 1:3 1:3 1:3 1:4	DekFast Olympic Olympic/G2 Anchorbond Gripdek Roofgrip Tru-Fast
ISORoc Minimum: 1.5" thick	1:2.67	See any approved fastener in table 3
E'NRG'Y 2 Plus Minimum: 1.5" thick	1:4 1:4 1:4 1:4 1:4 1:4 1:3 1:3 1:3	DekFast Tru-Fast Insulfixx Hextra Anchorbond HD Insulfixx Olympic/G2 Gripdek Roofgrip
Multi-Max Minimum: 1.5" thick	1:2.9	See any approved fastener in table 3
Perlite Minimum: ³ / ₄ " thick	1:2	See any approved fastener in table 3
Fiberglas Minimum: ¹⁵ / ₁₆ " thick	1:2.67	See any approved fastener in table 3



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.

<u>Insulation Base Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
Any of the insulations listed for Base Layer, above.		
High Density Wood Fiber Board Minimum: 1/2" thick	N/A	N/A

Note: Apply optional top layer of insulation in a full mopping of approved hot asphalt applied within the EVT range and at a rate of 20-40 lbs/100 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 Fiberglass 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: Three or four 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: None.

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 3/4 gal./sq.
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 1I: Wood, Insulated, New Construction

Deck Description: ¹⁹/₃₂" or greater plywood or wood 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>Fastener Type</u>
AC-Foam II Minimum: 1.3" thick	1:3	See any approved fastener in table 3
E'NRG'Y 2 Minimum: 1.4" thick	1:3 1:3 1:3 1:3 1:3 1:3 1:4	DekFast Olympic Gripdek Roofgrip Anchorbond Olympic/G2 Tru-Fast
ISORoc Minimum: 1.5" thick	1:2.67	See any approved fastener in table 3
E'NRG'Y 2 Plus Minimum: 1.5" thick	1:4 1:4 1:4 1:4 1:4 1:4 1:3 1:3 1:3	DekFast Tru-Fast Insulfixx Hextra Anchorbond HD Insulfixx Olympic/G2 Gripdek Roofgrip
Multi-Max Minimum: 1.5" thick	1:2.9	See any approved fastener in table 3
Perlite Minimum: ³ / ₄ " thick	1:2	See any approved fastener in table 3
Fiberglas Minimum: ¹⁵ / ₁₆ " thick	1:2.67	See any approved fastener in table 3



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.

<u>Insulation Top Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
Any of the insulations listed for Base Layer, above.		
High Density Wood Fiber Board Minimum: 1/2" thick	N/A	N/A

Note: Apply optional top layer of insulation in a full mopping of approved hot asphalt applied within the EVT range and at a rate of 20-40 lbs/100 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: Three or four 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

Capsheet: None.

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

- 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 ³/₄ gal./sq., 60 lbs. #11 3M roofing granule's in wet Tremlastic or Crushed Stone, nominal ³/₆₄"-³/₈" at 240lbs./sq. in wet Tremlastic.
- 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.)



Deck Type 1I: Wood, Insulated, New Construction

Deck Description: ¹⁹/₃₂" or greater plywood or wood plank

System Type B (3): 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>Fastener Type</u>
AC-Foam II, E'NRG'Y-2, Multi-Max, Isoroc, E'NRG'Y-2 Plus Minimum: 1.5" thick	1:1.3	See any approved fastener in table 3

<u>Insulation Top Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
High Density Wood Fiber Board Minimum: 1/2" thick	N/A	N/A
Dens Deck Minimum: 1/4" thick	N/A	N/A

Note: Apply optional top layer of insulation in a full mopping of approved hot asphalt applied within the EVT range and at a rate of 20-40 lbs/100 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 RAS117 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: Three or four 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: None.

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 ³/₄ gal./sq.
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: -70 psf, (See General Limitation #9.)



NOA No.: 02-0115.04
 Expiration Date: 03/14/07
 Approval Date: 03/14/02
 Page 14 of 20

Deck Type 1I: Wood, Insulated, New Construction

Deck Description: 1⁹/₃₂" or greater plywood or wood plank

System Type B (4): 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>Fastener Type</u>
AC-Foam II, E'NRG'Y-2, Multi-Max, Isoroc, E'NRG'Y-2 Plus Minimum: 1.5" thick	1:1.3	See any approved fastener in table 3

<u>Insulation Top Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
High Density Wood Fiber Board Minimum: 1/2" thick	N/A	N/A
Dens Deck Minimum: 1/4" thick	N/A	N/A

Note: Apply optional top layer of insulation in a full mopping of approved hot asphalt applied within the EVT range and at a rate of 20-40 lbs/100 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 Fiberglass 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: Three or four 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

Capsheet: None.

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

- 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 3/4 gal./sq., 60 lbs. #11 3M roofing granule's in wet Tremlastic or Crushed Stone, nominal 3/64"-3/8" at 240lbs./sq. in wet Tremlastic.
- Flood coat of BURMastic and gravel at application rates of 5-6 1/5 gal./sq. and 400 lbs./sq., respectively.

Maximum Design Pessure: -70 psf; (See General Limitation #9.)



Deck Type 1I: Wood, Insulated, New Construction

Deck Description: ¹⁹/₃₂" or greater plywood or wood plank

System Type C (1): All layers of insulation simultaneously attached.

All General and System Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
AC-Foam II, E'NRG'Y 2 Minimum: 1" thick	N/A	N/A
ISORoc, E'NRG'Y-2 Plus Minimum: 1.5" thick	N/A	N/A
Multi-Max Minimum: 1" thick	N/A	N/A
High Density Wood Fiber Minimum: ½" thick	N/A	N/A
Celotherm, ConPerl, GAFTEMP Permalite, Fesco Board Minimum: ¾" thick	N/A	N/A
Fiberglas Roof Insulation Minimum: ¹⁵ / ₁₆ " thick	N/A	N/A

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

<u>Insulation Top Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
AC-Foam II Minimum: 1.3" thick	1:3	See any approved fastener in table 3
E'NRG'Y 2 Minimum: 1.4" thick	1:3 1:3 1:3 1:3 1:3 1:3 1:4	DekFast Olympic Gripdek Roofgrip Anchorbond Olympic/G2 Tru-Fast
ISORoc Minimum: 1.5" thick	1:2.67	See any approved fastener in table 3



E'NRG'Y 2 Plus

Minimum: 1.5" thick

1:4
1:4
1:4
1:4
1:4
1:4
1:3
1:3
1:3

DekFast
Tru-Fast
Insulfixx
Hextra
Anchorbond
HD Insulfixx
Olympic/G2
Gripdek
Roofgrip

Multi-Max

Minimum: 1.5" thick

1:2.9

See any approved fastener in table 3

Perlite

Minimum: 3/4" thick

1:2

See any approved fastener in table 3

Fiberglas

Minimum: 1⁵/₁₆" thick

1:2.67

See any approved fastener in table 3

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: Three or four 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: None.

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 3/4 gal./sq.
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 1I: Wood, Insulated, New Construction

Deck Description: ¹⁹/₃₂" or greater plywood or wood plank

System Type C (2): All layers of insulation simultaneously attached.

All General and System Limitations apply.

<u>Insulation Base Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
AC-Foam II, E'NRG'Y 2 Minimum: 1" thick	N/A	N/A
ISORoc, E'NRG'Y-2 Plus Minimum: 1.5" thick	N/A	N/A
Multi-Max Minimum: 1" thick	N/A	N/A
High Density Wood Fiber Minimum: ½" thick	N/A	N/A
Celotherm, ConPerl, GAFTEMP Permalite, Fesco Board Minimum: ¾" thick	N/A	N/A
Fiberglas Roof Insulation Minimum: ¹⁵ / ₁₆ " thick	N/A	N/A

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

<u>Insulation Top Layer</u>	<u>Fastener Density ft²</u>	<u>Fastener Type</u>
AC-Foam II Minimum: 1.3" thick	1:3	See any approved fastener in table 3
E'NRG'Y 2 Minimum: 1.4" thick	1:3 1:3 1:3 1:3 1:3 1:3 1:3 1:4	DekFast Olympic Gripdek Roofgrip Anchorbond Olympic/G2 Tru-Fast
ISORoc Minimum: 1.5" thick	1:2.67	See any approved fastener in table 3



E'NRG'Y 2 Plus

Minimum: 1.5" thick

1:4
1:4
1:4
1:4
1:4
1:4
1:3
1:3
1:3

DekFast
Tru-Fast
Insulfixx
Hextra
Anchorbond
HD Insulfixx
Olympic/G2
Gripdek
Roofgrip

Multi-Max

Minimum: 1.5" thick

1:2.9

See any approved fastener in table 3

Perlite

Minimum: 3/4" thick

1:2

See any approved fastener in table 3

Fiberglas

Minimum: 15/16" thick

1:2.67

See any approved fastener in table 3

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: Three or four 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

Capsheet: None.

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 3/4 gal./sq., 60 lbs. #11 3M roofing granule's in wet Tremlastic or Crushed Stone, nominal 3/64"-3/8" at 240lbs./sq. in wet Tremlastic.
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.)



WOOD DECK SYSTEM LIMITATIONS:

1. A slip sheet is required with Ply 4 and Ply 6 when used as a mechanically fastened base or anchor sheet.

GENERAL LIMITATIONS:

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

END OF THIS ACCEPTANCE



NOA No.: 02-0115.04
Expiration Date: 03/14/07
Approval Date: 03/14/02
Page 20 of 20