MIAMI-DADE

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING

BUILDING CODE COMPLIANCE OFFICE
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PRODUCT CONTROL DIVISION
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PRODUCT CONTROL NOTICE OF ACCEPTANCE

U.S. Intec, Inc.
1212 Brai Drive
Port Arthur TX 77643

Your application for Product Approval of:
U.S. Intec Modified Bitumen Roof Systems for Wood Deck.
under Chapter 8 of the Code of Miami-Dade County governing the use of Alternate Materials and Types of Construction, and completely described herein, has been recommended for acceptance by the Miami-Dade County Building Code Compliance Office (BCCO) under the conditions specified herein.

This approval shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at anytime from a jobsite or manufacturer's plant for quality control testing.
If this product or material fails to perform in the approved manner, BCCO may revoke, modify, or suspend the use of such product or material immediately. BCCO reserves the right to revoke this approval, if it is determined BCCO that this product or material fails to meet the requirements of the South Florida Building Code.

The expense of such testing will be incurred by the manufacturer.

Acceptance No.: 00-0329.05

Expires: 08/01/2003

Raul Rodriguez
Chief Product Control Division

THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL CONDITIONS

BUILDING CODE & PRODUCT REVIEW COMMITTEE

This application for Product Approval has been reviewed by the BCCO and approved by the Building Code and Product Review Committee to be used in Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.
Director
Miami-Dade County
Building Code Compliance Office

Approved: 05/26/2000

Internet mail address: postmaster@buildingcodeonline.com **Homepage: http://www.buildingcodeonline.com**

ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: BUR Modified, APP/SBS

Approval Date: **May 26, 2000**

Expiration Date: **August 01, 2003**

Deck Type: Wood
Maximum Design Pressure -52.5 psf
Fire Classification: See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

Product	Dimensions*	Test Specification	Product Description
Ultra Base	67 lb. roll	ASTM D 4601	Type II asphalt impregnated and coated glass fiber base sheet.
Bondable Base	67 lb. roll	ASTM D 4601	Type II asphalt impregnated and coated glass fiber base sheet.
Flex Base 30	67 lb. roll	ASTM D 5147	Fiberglass base sheet coated with SBS modified asphalt.
Flex Base 60FR	85 lb. roll	ASTM D 5147	Fiberglass base sheet coated with SBS modified asphalt.
Flex Base 60FR HS	85 lb. roll	ASTM D 5147	Fiber glass mat and scrim reinforced base sheet coated with SBS modified asphalt.
Intec Modified Base 190P	87 lb. roll	ASTM D 5147	Smooth surface SBS modified asphalt membrane, polyester reinforcement.
Permavent	72 lb. roll	ASTM D 4897 Type II	Fiber glass base sheet impregnated and coated on both sides.
Combination Base	67 lb. roll	ASTM D 4601 Type I	Type I asphalt impregnated and coated glass fiber base sheet with kraft paper backing.
Intec Modified Base Plus	90 lb. roll	ASTM D 5147	Fiberglass base sheet coated with SBS modified asphalt.
Intec Modified Base HS	90 lb. roll	ASTM D 5147	Smooth surface, fiber glass mat and scrim reinforced, SBS modified asphalt membrane.
Laser Base	80 lb. roll	Proprietary	Perforated APP modified sheet, fiberglass reinforcement.
Tough Ply IV	38 lb. roll	ASTM D 2178 Type IV	Type IV asphalt impregnated glass felt.
Ultra Ply VI	38 lb. roll	ASTM D 2178 Type VI	Type VI asphalt impregnated glass felt.
Ultra Cap	72 lb. roll	ASTM D 3909	Asphalt impregnated and coated felt surfaced with mineral granules.
Intec Flex S	88 lb. roll	ASTM D 5147	Smooth surface, polyester reinforced, SBS modified asphalt membrane.
Intec Flex M	105 lb. roll	ASTM D 5147	Granule surface, polyester reinforced, SBS modified asphalt membrane.
Intec Flex 190	97 lb. roll	ASTM D 5147	Granule surface, polyester reinforced, SBS modified asphalt membrane.
Intec Flex 190 FR	105 lb. roll	ASTM D 5147	Granule surface, polyester reinforced, fire resistant, SBS modified asphalt membrane.
Intec Flex 250 FR	105 lb. roll	ASTM D 5147	Granule surface, polyester reinforced, fire resistant, SBS modified asphalt membrane.

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Roofing Product Control Examiner

Product	Dimensions*	Test Specification	Product Description
Intec Flex FR 4.5	105 lb. roll	ASTM D 5147	Granule surface, fiberglass reinforced, fire retardant, SBS modified asphalt membrane.
Intec Flex FR3 HS	100 lb. roll	ASTM D 5147	Granule surface fiberglass scrim and mat reinforced, fire resistant, SBS modified asphalt membrane.
Intec Flex Dual FR	90 lb. roll	ASTM D 5147	Granule surface, polyester/fiberglass reinforced, fire resistant, SBS modified asphalt membrane.
Intec Flex G4 (Smooth)	90 lb. roll	ASTM D 5147	Smooth surface, fiberglass reinforced, SBS modified asphalt membrane.
Intec SP-4	88 lb. roll	ASTM D 5147	Smooth surface, polyester reinforced, APP modified asphalt membrane.
Flex Cap APP 4S	88 lb. roll	ASTM D 5147	Smooth surface, polyester reinforced, APP modified membrane.
Flex Cap APP 4.5M	105 lb. roll	ASTM D 5147	Granule surface, polyester reinforced, APP modified asphalt membrane.
Intec GBSP-4	105 lb. roll	ASTM D 5147	Granule surface, polyester reinforced, APP modified asphalt membrane.
Intec GBSP-4FR	105 lb. roll	ASTM D 5147	Granule surface, polyester reinforced, fire resistant, APP modified asphalt membrane.
Intec GBSP-250FR	90 lb. roll	ASTM D 5147	Granule surface, polyester reinforced, fire resistant, APP modified asphalt membrane.
Intec Flex Aluminum		ASTM D 5147	Aluminum surface, reinforced membrane for flashing use only.
Intec Walk Board	3' x 3'	Proprietary	Granule surface, APP modified asphalt membrane walkboard.
Intec Flex Walk Board	3' x 3'	Proprietary	Granule surface, SBS modified asphalt membrane walkboard.
Drill-Tec (SS) Fastener	various	PA 114	Stainless steel, drill point, threaded fastener.
Drill-Tec #14 Heavy Duty (HD) Fastener	various	PA 114	Corrosion resistant, drill point, threaded fastener.
Drill-Tec Coated Drill Point (CDP)	various	PA 114	Corrosion resistant, drill point, threaded fastener.
Drill-Tec Coated Thread Point (CTP)	various	PA 114	Corrosion resistant, threaded point fastener.
Drill-Tec Plastic Plates	3" round	PA 114	Polyolifin 3" round plastic stress plates.
Drill-Tec Metal Plates	3" round	PA 114	Galvalume 3" round metal stress plates.
Flex Asphalt	various	ASTM D 312	SEBS modified mopping asphalt.
Flex Asphalt Plus	various	ASTM D 312	SEBS modified mopping asphalt.
Flex Asphalt Lite	various	ASTM D 312	SEBS modified mopping asphalt.
Intec/Permaglas Roofing Asphalt	various	ASTM D 312	Mopping Asphalt
Matrix SBS Plus	various	proprietary	Asphalt based, SBS modified cold adhesive.
Matrix SBS Plus Trowel Grade	various	proprietary	SBS modified roof cement.
Fireshield	6 gal. drum	proprietary	A liquid, temporary fire retardant treatment for brush, roll or spray application.
Gravel Guard MB	various	proprietary	Metal edge gravel guard with perforated flange.
MDrain	various	proprietary	Spun aluminum or copper roof drain.

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Product	Dimensions*	Test Specification	Product Description
Mini SP-4	various	proprietary	Pre-cut widths of polyester reinforced, APP modified membrane for flashing and repairs.
MPan	various	proprietary	A prefabricated pitch pan and modified bitumen flashing assembly.
MScupper	various	proprietary	Prefabricated scupper.
Preflashed Lead Jack	various	proprietary	Preflashed vent pipe waterproofing assembly.
Standard, Adjustable, One Way MVent	various	proprietary	Prefabricated stack cover for use in soil pipe waterproofing.
Intec Tape	roll	proprietary	Unreinforced APP asphalt used as sealer or filler.
USIso Roof Insulation	various	PA 110	Polyisocyanurate foam insulation.
USIso Tapered Roof Insulation	various	PA 110	Tapered polyisocyanurate insulation.
USIso/Perlite Composite	various	PA 110	Polyisocyanurate foam /perlite composite insulation board.
BMCA Permalite	min. ¾" thick	PA 110	Perlite and tapered perlite insulation board
BMCA Permalite Recover	min. ½" thick	PA 110	Perlite recover board

TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS:

Product	Dimensions	Test Specification	Product Description	Manufacturer
Pyrox	min. 4' x 4'	PA 110	Polyisocyanurate foam insulation	Apache Products Co. (with current PCA)
White Line	min. 4' x 4'	PA 110	Polyisocyanurate foam insulation	Apache Products Co. (with current PCA)
ACFoam II	min. 4' x 4'	PA 110	Polyisocyanurate foam insulation	Atlas Energy Products (with current PCA)
E'NRG'Y-2	min. 4' x 4'	PA 110	Polyisocyanurate foam insulation	NRG Barriers, Inc. (with current PCA)
Multi-Max Multi-Max FA	min. 4' x 4'	PA 110	Polyisocyanurate foam insulation	Rmax, Inc. (with current PCA)
Type X Gypsum	various		Fire resistant rated gypsum.	generic
DensDeck	min. ¼" thick		Fire resistant gypsum.	Georgia Pacific (with current PCA)
Dekfast Fasteners #14	various	PA 114	Insulation fastener for steel and concrete decks	Construction Fasteners (with current PCA)
Dekfast Hex Plate	2 7/8" x 3 ¼"	PA 114	Galvalume hex stress plate.	Construction Fasteners (with current PCA)
Dekfast Lock Plate	3" x 3 ¼"	PA 114	Polypropylene locking plate.	Construction Fasteners (with current PCA)
Dekfast #15	various	PA 114	Insulation fasteners for concrete decks	Construction Fasteners (with current PCA)
Dekfast #12	various	PA 114	Insulation fastener for steel and wood decks.	Construction Fasteners (with current PCA)
#12 Roofgrip	various	PA 114	Insulation fastener for steel or wood decks	ITW Buildex (with current PCA)
#14 Roofgrip	various	PA 114	Insulation fastener steel, wood or concrete decks	ITW Buildex (with current PCA)

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Product	Dimensions	Test Specification	Product Description	Manufacturer
Gripdek Fastener	various	PA 114	Insulation fastener	ITW Buildex (with current PCA)
Hextra	various	PA 114	Insulation fastener and metal or plastic plate	ITW Buildex (with current PCA)
Roofgrip Fastener	various	PA 114	Insulation fastener	ITW Buildex (with current PCA)
Standard Plastic Plate	3" round	PA 114	Polyolefin plastic plate	ITW Buildex (with current PCA)
Olympic Polypropylene	3.25" round	PA 114	Polypropylene plastic plate	Olympic (with current PCA)
Olympic Fastener #14	various	PA 114	Insulation fastener	Olympic (with current PCA)
Olympic Standard	3" round	PA 114	3" round galvalume AZ55 steel plate	Olympic (with current PCA)
Olympic Fastener #12	various	PA 114	Insulation fastener	Olympic (with current PCA)
Insul-Fixx Fastener	various	PA 114	Insulation fastener	SFS Stadler (with current PCA)
HD Insul-Fixx Fastener	various	PA 114	Insulation fastener for use in steel and concrete decks	SFS Stadler (with current PCA)
Insul-Fixx S	3" round	PA 114	3" round galvalume AZ55 stress plate	SFS Stadler (with current PCA)
Insul-Fixx P	3" round	PA 114	3" round polyethylene stress plate	SFS Stadler (with current PCA)
Tru-Fast Plastic Plate	3.04" round	PA 114	3.04" round polyethylene plastic plate	Tru-Fast (with current PCA)
Tru-Fast HD	various	PA 114	Insulation fastener for use in wood, steel or concrete decks	Tru-Fast (with current PCA)
Tru-Fast MP-3	3.23" round	PA 114	3.23" round galvalume AZ50 steel plate	Tru-Fast (with current PCA)
Roofing Nails	min. 11 ga.	PA 114	Corrosion resistant annular ring shank nails	generic
Tin Caps	Min. 32 ga. x $1^5/_8$"	PA 114	Corrosion resistant circular discs.	generic
Asphalt	various	ASTM D 312	Type III or IV Hot asphalt bitumen adhesive	generic
Asphalt Primer	various	ASTM D 41	Asphalt Primer	generic
Acrylic Roof Coating	various	PA 121	Acrylic roof coating	Gibson Homans (with current PCA)
Aluminum Roof Coating	various	PA 121	Aluminum roof coating	Gibson Homans (with current PCA)
Alum-A-Gard	various	PA 121	Aluminum roof coating.	ALCO (Nat'l Varnish) (with current PCA)
Karnak 97	various	PA 121	Roof coating	Karnak (with current PCA)
Endure	various	PA 121	Asphalt emulsion	Monsey Products (with current PCA)
Pro-Grade Aluminum	various	PA 121	Aluminum roof coating	Monsey Products (with current PCA)

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Product	Dimensions	Test Specification	Product Description	Manufacturer
Thermo Super Prep II	various	PA 121	Liquid acrylic coating.	Thermo Materials Corp. (with current PCA)
Thermo Solar Shield	various	PA 121	Liquid acrylic coating.	Thermo Materials Corp. (with current PCA)
TRS Top Coat	various	PA 121	Liquid acrylic coating.	Thermo Materials Corp. (with current PCA)

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Description	Date
Factory Mutual Research Corporation	J.I. 3X0A9.AM	FMRC 4470	04/12/94
Factory Mutual Research Corporation	J.I. 0V0A6.AM	FMRC 4470	01/06/93
Factory Mutual Research Corporation	J.I. 0W4A7.AM	FMRC 4450/4470	11/08/92
Factory Mutual Research Corporation	J.I. 2W0A1.AM	FMRC 4470	09/09/92
Factory Mutual Research Corporation	J.I. 0X6Q2.AM	FMRC 4470	06/24/93
Factory Mutual Research Corporation	Letter	Approval Extension	05/19/93
Factory Mutual Research Corporation	Letter	Approval Extension	04/13/94
Factory Mutual Research Corporation	J.I. 1B7A6.AM	FMRC 4470	05/27/97
Factory Mutual Research Corporation	J.I. 3B0A0.AM	FMRC 4470/4454	04/30/97
Factory Mutual Research Corporation	J.I. 0D3A3.AM	FMRC 4470/4454	04/04/97
Underwriters Laboratories, Inc.	1997 UL Guide	Fire Classification Compliance	01/01/97
Underwriters Laboratories, Inc.	96NK26146	UL 790	11/04/96
Underwriters Laboratories, Inc.	96NK11547	UL 790	05/28/96
Warnock Hersey - ITS	484-733400	Physical Properties	07/26/94
Exterior Research & Design, LLC.	#3955.05.97-1	Wind Uplift PA 114, Appendix J	05/22/97

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TYPICAL PROPERTIES:

DYNAMIC PULL-THROUGH PERFORMANCE

Stress Plate	Base Sheet	Dynamic Pull-Through Value (lbf.)
Intec Drill-Tec	Permavent	67
	Ultra Base	76
	Flex Base 30	62
	Flex Base 60FR	154
	Intec Modified Base Plus	119
	Intec Modified Base Plus HS	140
	Intec Modified Base 190P	126
	Intec APP Base	89
	Intec SP-4	165
SFS Stadler Insul-Fixx S	Permavent	69
	Ultra Base	73
	Flex Base 30	91
	Flex Base 60FR	114
	Intec Modified Base Plus	109
	Intec Modified Base Plus HS	185
	Intec Modified Base 190P	118
	Intec APP Base	89
	Intec SP-4	173
SFS Stadler Isofast IF/IG	Permavent	105
	Ultra Base	88
	Flex Base 30	117
	Flex Base 60FR	125
	Intec Modified Base Plus	120
	Intec Modified Base Plus HS	188
	Intec Modified Base 190P	218
	Intec APP Base	116
	Intec SP-4	199
Olympic Standard Metal	Permavent	59
	Ultra Base	74
	Flex Base 30	100
	Flex Base 60FR	198
	Intec Modified Base Plus	148
	Intec Modified Base Plus HS	180
	Intec Modified Base 190P	105
	Intec APP Base	114
	Intec SP-4	170
ITW Buildex Premium Metal	Permavent	54
	Ultra Base	92
	Flex Base 30	88

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Stress Plate	Base Sheet	Dynamic Pull-Through Value (lbf.)
	Flex Base 60FR	113
	Intec Modified Base Plus	124
	Intec Modified Base Plus HS	204
	Intec Modified Base 190P	124
	Intec APP Base	120
	Intec SP-4	158
CF Dekfast Hex Plate	Permavent	54
	Ultra Base	92
	Flex Base 30	78
	Flex Base 60FR	138
	Intec Modified Base Plus	124
	Intec Modified Base Plus HS	222
	Intec Modified Base 190P	112
	Intec APP Base	94
	Intec SP-4	187

1Dynamic Pull-Through Values determined in compliance with Miami-Dade County Roofing Protocol PA 117(B) using listed base sheet followed by one ply of type IV ply sheet applied in hot asphalt.
2A 2 to 1 margin of safety has been applied to actual test results resulting in the above noted design values.

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SYSTEMS:

Membrane Type: APP

Deck Type 1I: Wood, Insulated, New Construction

Deck Description: $^{19}/_{32}$" 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.

Insulation Base Layer	Fastener Type	Fastening Detail No.	Fasteners Per Board	Fastener Density
One or more layers of any of the following insulations:				
Approved Type(s): **USIso, E'NRG'Y-2, ACFoam II, Multi-Max, Multi-Max FA, Pyrox, Whiteline**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A

Insulation Base or Top Layer	Fastener Type	Fastening Detail No.	Fasteners Per Board	Fastener Density
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **BMCA Permalite**				
Minimum: ¾" x 2' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **BMCA Permalite Recover (Top Layer Only)**				
Minimum: ½" x 2' x 4'	N/A	N/A	N/A	N/A

Note: All insulation shall be adhered to the anchor sheet in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs. Please refer to Miami-Dade County 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 may be used as a top layer placed with the polyisocyanurate side facing down.

Anchor Sheet: Ultra Base, Combination Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S, Intec Flex G4 Smooth or Permavent fastened to the deck as described below:

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Fastening:	Anchor sheet shall be lapped 4" and fastened with approved roofing nails and tin caps or Drill-Tec fasteners and Drill-Tec Metal Plates at 9" o.c. at the lap and two rows staggered in the center of the sheet 18" o.c.
Base Sheet:	(Optional if ply sheet is used) Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the insulated substrate with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.
Ply Sheet:	(Optional) One (base sheet required), two or three plies of Tough Ply IV or Ultra Ply VI or one ply of Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the insulation or base sheet with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq., or one ply of SP4 or Flex Cap APP 4S torch welded to a mopped base sheet.
Membrane:	Intec SP-4, Flex Cap APP 4S, Intec GBSP-4FR, Intec GBSP-250FR, Intec GBSP-4 or Flex Cap APP 4.5M torch welded to substrate.
Surfacing:	Install liquid roof coating if using Intec SP-4 or Flex Cap APP4S as membrane. See General Limitations #1.
Maximum Design Pressure:	-45 psf (See General Limitation #9.)
Maximum Fire Classification:	See General Limitation # 1.
Maximum Slope:	See General Limitation #1.
Specification No.:	See manufacturer's specification manual

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Membrane Type: SBS

Deck Type 1I: Wood, Insulated, New Construction

Deck Description: $^{19}/_{32}$" 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.

Insulation Base Layer	Fastener Type	Fastening Detail No.	Fasteners Per Board	Fastener Density
One or more layers of any of the following insulations:				
Approved Type(s): **USIso, E'NRG'Y-2, ACFoam II, Multi-Max, Multi-Max FA, Pyrox, Whiteline**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A

Insulation Base or Top Layer	Fastener Type	Fastening Detail No.	Fasteners Per Board	Fastener Density
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **BMCA Permalite**				
Minimum: ¾" x 2' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **BMCA Permalite Recover (Top Layer Only)**				
Minimum: ½" x 2' x 4'	N/A	N/A	N/A	N/A

Note: All insulation shall be adhered to the anchor sheet in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs. Please refer to Miami-Dade County 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 may be used as a top layer placed with the polyisocyanurate side facing down.

Anchor Sheet: Ultra Base, Combination Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S, Intec Flex G4 Smooth or Permavent fastened to the deck as described below:

Fastening: Anchor sheet shall be lapped 4" and fastened with approved roofing nails and tin caps or Drill-Tec fasteners and Drill-Tec Metal Plates at 9" o.c. at the lap and two rows staggered in the center of the sheet 18" o.c.

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Base Sheet:	(Optional if ply sheet is used) Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the insulated substrate with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.
Ply Sheet:	(Optional) One (base sheet required), two or three plies of Tough Ply IV or Ultra Ply VI or one ply of Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the insulation or base sheet with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq
Membrane:	Intec Flex FR 3HS, Intec Flex 190FR, Intec Flex 250FR, Intec Flex FR 4.5, Intec Flex Dual FR, Intec Flex 190, Permaglas SBS, Permaglas SBS FR or Intec Flex M adhered with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.
Surfacing:	(Optional, in place of membrane) One or more plies of Ultra Base, Flex Base 30, Flex Base 60 FR, Intec Modified Base Plus or Intec Flex S adhered with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq. and surfaced with a flood coat of asphalt at a minimum rate of 60 lbs./sq. and 400 lbs. of aggregate.
Maximum Design Pressure:	-45 psf (See General Limitation #9.)
Maximum Fire Classification:	See General Limitation # 1.
Maximum Slope:	See General Limitation #1.
Specification No.:	See manufacturer's specification manual

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Membrane Type: APP

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.

Insulation Base Layer	Fastener Type	Fastening Detail No.	Fasteners Per Board	Fastener Density
One or more layers of any of the following insulations:				
Approved Type(s): **USIso, E'NRG'Y-2, ACFoam II, Multi-Max, Multi-Max FA, Pyrox, Whiteline**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A

Insulation Base or Top Layer	Fastener Type	Fastening Detail No.	Fasteners Per Board	Fastener Density
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **BMCA Permalite**				
Minimum: ¾" x 2' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **BMCA Permalite Recover (Top Layer Only)**				
Minimum: ½" x 2' x 4'	N/A	N/A	N/A	N/A

Note: All insulation shall be adhered to the anchor sheet in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs. Please refer to Miami-Dade County 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 may be used as a top layer placed with the polyisocyanurate side facing down.

Deck: min. 19/32" plywood attached 6" o.c. using #8 x 2½" wood screws fastened to minimum 2" x 4" supports spaced a maximum of 24" o.c.

Anchor Sheet: Ultra Base or Combination Base fastened to the deck as described below:

Fastening: Anchor sheet shall be lapped 4" and fastened with approved roofing nails and tin caps or Drill-Tec fasteners and Drill-Tec Metal Plates at 9" o.c. at the lap and two rows staggered in the center of the sheet 18" o.c.

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Base Sheet: (Optional if ply sheet is used) Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the insulated substrate with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.

Ply Sheet: (Optional) One (base sheet required), two or three plies of Tough Ply IV or Ultra Ply VI or one ply of Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the insulation or base sheet with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq., or one ply of SP4 or Flex Cap APP 4S torch welded to a mopped base sheet.

Membrane: Intec SP-4, Flex Cap APP 4S, Intec GBSP-4FR, Intec GBSP-250FR, Intec GBSP-4 or Flex Cap APP 4.5M torch welded to substrate.

Surfacing: Install liquid roof coating if using Intec SP-4 or Flex Cap APP4S as membrane. See General Limitations #1.

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

Maximum Fire Classification: See General Limitation #1.

Maximum Slope: See General Limitation #1.

Specification: Refer to manufacturer's specification manual

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Membrane Type: SBS

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.

Insulation Base Layer	**Fastener Type**	**Fastening Detail No.**	**Fasteners Per Board**	**Fastener Density**
One or more layers of any of the following insulations:				
Approved Type(s): **USIso, E'NRG'Y-2, ACFoam II, Multi-Max, Multi-Max FA, Pyrox, Whiteline**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A

Insulation Base or Top Layer	**Fastener Type**	**Fastening Detail No.**	**Fasteners Per Board**	**Fastener Density**
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **BMCA Permalite**				
Minimum: ¾" x 2' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **BMCA Permalite Recover (Top Layer Only)**				
Minimum: ½" x 2' x 4'	N/A	N/A	N/A	N/A

Note: All insulation shall be adhered to the anchor sheet in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs. Please refer to Miami-Dade County 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 may be used as a top layer placed with the polyisocyanurate side facing down.

Deck: min. 19/32" plywood attached 6" o.c. using #8 x 2½" wood screws fastened to minimum 2" x 4" supports spaced a maximum of 24" o.c.

Anchor Sheet: Ultra Base or Combination Base fastened to the deck as described below:

Fastening: Anchor sheet shall be lapped 4" and fastened with approved roofing nails and tin caps or Drill-Tec fasteners and Drill-Tec Metal Plates at 9" o.c. at the lap and two rows staggered in the center of the sheet 18" o.c.

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Base Sheet: (Optional if ply sheet is used) Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the insulated substrate with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.

Ply Sheet: (Optional) One (base sheet required), two or three plies of Tough Ply IV or Ultra Ply VI or one ply of Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the insulation or base sheet with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.

Membrane: Intec Flex FR 3HS, Intec Flex 190FR, Intec Flex 250FR, Intec Flex FR 4.5, Intec Flex Dual FR, Intec Flex 190, Permaglas SBS, Permaglas SBS FR or Intec Flex M adhered with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.

Surfacing: (Optional, in place of membrane) One or more plies of Ultra Base, Flex Base 30, Flex Base 60 FR, Intec Modified Base Plus or Intec Flex S adhered with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq. and surfaced with a flood coat of asphalt at a minimum rate of 60 lbs./sq. and 400 lbs. of aggregate.

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

Maximum Fire Classification: See General Limitation #1.

Maximum Slope: See General Limitation #1.

Specification: Refer to manufacturer's specification manual

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Membrane Type: APP

Deck Type 1I: Wood, Insulated, New Construction

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

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

All General and System Limitations apply.

Insulation Base Layer	Fastener Type	Fastening Detail No.	Fasteners Per Board	Fastener Density
Approved Type(s): **USIso, E'NRG'Y-2, ACFoam II, Multi-Max, Multi-Max FA, Pyrox, Whiteline**				
Minimum: 1.5" x 4' x 4'	Drill-Tec S/P	[3]	6	1:2.67 ft²
Minimum: 1.5" x 4' x 4'	Tru-Fast S/P	[3]	6	1:2.67 ft²
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	Drill-Tec S/P	[3]	6	1:2.67 ft²
Minimum: 1.5" x 4' x 4'	Tru-Fast S/P	[3]	6	1:2.67 ft²
Aproved Type(s): **BMCA Permalite**				
Minimum: ¾" x 2' x 4'	Drill-Tec S/P	[1]	3	1:2.67 ft²
Minimum: ¾" x 2' x 4'	Tru-Fast S/P	[1]	3	1:2.67 ft²

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 Miami-Dade County Roofing Application Standard RAS 117 for fastening details).

Insulation Top Layer	Fastener Type	Fastening Detail No.	Fasteners Per Board	Fastener Density
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **BMCA Permalite**				
Minimum: ¾" x 2' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **BMCA Permalite Recover**				
Minimum: ½" x 2' x 4'	N/A	N/A	N/A	N/A

Note: Apply top layer of insulation in a full mopping of any approved mopping asphalt within the EVT range and at a rate of 20-40 lbs. Please refer to Miami-Dade County 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 may be used as a top layer placed with the polyisocyanurate side facing down.

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Base Sheet:	(Optional if ply sheet is used) Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the insulated substrate with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.
Ply Sheet:	(Optional) One (base sheet required), two or three plies of Tough Ply IV or Ultra Ply VI or one ply of Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the insulation or base sheet with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq., or one ply of SP4 or Flex Cap APP 4S torch welded to a mopped base sheet.
Membrane:	Intec SP-4, Flex Cap APP 4S, Intec GBSP-4FR, Intec GBSP-250FR, Intec GBSP-4 or Flex Cap APP 4.5M torch welded to substrate.
Surfacing:	Install liquid roof coating if using Intec SP-4 or Flex Cap APP4S as membrane. See General Limitations #1.
Maximum Design Pressure:	-45 psf; (See General Limitation #9.)
Maximum Fire Classification:	See General limitation #1.
Maximum Slope:	See General Limitation # 1.
Specification No.:	See manufacturer's specification manual.

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Membrane Type: SBS

Deck Type 1I: Wood, Insulated, New Construction

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

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

All General and System Limitations apply.

Insulation Base Layer	Fastener Type	Fastening Detail No.	Fasteners Per Board	Fastener Density
Approved Type(s): **USIso, E'NRG'Y-2, ACFoam II, Multi-Max, Multi-Max FA, Pyrox, Whiteline**				
Minimum: 1.5" x 4' x 4'	Drill-Tec S/P	[3]	6	1:2.67 ft²
Minimum: 1.5" x 4' x 4'	Tru-Fast S/P	[3]	6	1:2.67 ft²
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	Drill-Tec S/P	[3]	6	1:2.67 ft²
Minimum: 1.5" x 4' x 4'	Tru-Fast S/P	[3]	6	1:2.67 ft²
Aproved Type(s): **BMCA Permalite**				
Minimum: ¾" x 2' x 4'	Drill-Tec S/P	[1]	3	1:2.67 ft²
Minimum: ¾" x 2' x 4'	Tru-Fast S/P	[1]	3	1:2.67 ft²

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 Miami-Dade County Roofing Application Standard RAS 117 for fastening details).

Insulation Top Layer	Fastener Type	Fastening Detail No.	Fasteners Per Board	Fastener Density
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **BMCA Permalite**				
Minimum: ¾" x 2' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **BMCA Permalite Recover**				
Minimum: ½" x 2' x 4'	N/A	N/A	N/A	N/A

Note: Apply top layer of insulation in a full mopping of any approved mopping asphalt within the EVT range and at a rate of 20-40 lbs. Please refer to Miami-Dade County 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 may be used as a top layer placed with the polyisocyanurate side facing down.

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Base Sheet: (Optional if ply sheet is used) Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the insulated substrate with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.

Ply Sheet: (Optional) One (base sheet required), two or three plies of Tough Ply IV or Ultra Ply VI or one ply of Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the insulation or base sheet with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.

Membrane: Intec Flex FR 3HS, Intec Flex 190FR, Intec Flex 250FR, Intec Flex FR 4.5, Intec Flex Dual FR, Intec Flex 190, Permaglas SBS, Permaglas SBS FR or Intec Flex M adhered with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.

Surfacing: (Optional, in place of membrane) One or more plies of Ultra Base, Flex Base 30, Flex Base 60 FR, Intec Modified Base Plus or Intec Flex S adhered with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq. and surfaced with a flood coat of asphalt at a minimum rate of 60 lbs./sq. and 400 lbs. of aggregate.

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

Maximum Fire Classification: See General limitation #1.

Maximum Slope: See General Limitation # 1.

Specification No.: See manufacturer's specification manual.

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Membrane Type: APP

Deck Type 1I: Wood, Insulated, New Construction

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

System Type C: All layers of insulation simultaneously fastened.

All General and System Limitations apply.

Insulation Base Layer	Fastener Type	Fastening Detail No.	Fasteners Per Board	Fastener Density
One or more layers of any of the following insulations:				
Approved Type(s): **USIso, E'NRG'Y-2, ACFoam II, Multi-Max, Multi-Max FA, Pyrox, Whiteline**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A

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

Insulation Base or Top Layer	Fastener Type	Fastening Detail No.	Fasteners Per Board	Fastener Density
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	Drill-Tec S/P	[3]	6	1:2.67 ft²
Minimum: 1.5" x 4' x 4'	Tru-Fast S/P	[3]	6	1:2.67 ft²
Aproved Type(s): **BMCA Permalite**				
Minimum: ¾" x 2' x 4'	Drill-Tec S/P	[1]	3	1:2.67 ft²
Minimum: ¾" x 2' x 4'	Tru-Fast S/P	[1]	3	1:2.67 ft²

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 Miami-Dade County Testing Application Standard TAS 105 to confirm compliance with the wind load requirements set forth in Chapter 23 of the S.F.B.C. Please refer to Miami-Dade County Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: (Optional if ply sheet is used) Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the insulated substrate with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.

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Ply Sheet: (Optional) One (base sheet required), two or three plies of Tough Ply IV or Ultra Ply VI or one ply of Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the insulation or base sheet with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq., or one ply of SP4 or Flex Cap APP 4S torch welded to a mopped base sheet.

Membrane: Intec SP-4, Flex Cap APP 4S, Intec GBSP-4FR, Intec GBSP-250FR, Intec GBSP-4 or Flex Cap APP 4.5M torch welded to substrate.

Surfacing: Install liquid roof coating if using Intec SP-4 or Flex Cap APP4S as membrane. See General Limitations #1.

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

Maximum Fire Classification: See General Limitation # 1.

Maximum Slope: See General Limitation #1.

Specification No.: See manufacturer's specification manual.

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Membrane Type: SBS

Deck Type 1I: Wood, Insulated, New Construction

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

System Type C: All layers of insulation simultaneously fastened.

All General and System Limitations apply.

Insulation Base Layer	Fastener Type	Fastening Detail No.	Fasteners Per Board	Fastener Density
One or more layers of any of the following insulations:				
Approved Type(s): **USIso, E'NRG'Y-2, ACFoam II, Multi-Max, Multi-Max FA, Pyrox, Whiteline**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A

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

Insulation Base or Top Layer	Fastener Type	Fastening Detail No.	Fasteners Per Board	Fastener Density
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	Drill-Tec S/P	[3]	6	1:2.67 ft²
Minimum: 1.5" x 4' x 4'	Tru-Fast S/P	[3]	6	1:2.67 ft²
Aproved Type(s): **BMCA Permalite**				
Minimum: ¾" x 2' x 4'	Drill-Tec S/P	[1]	3	1:2.67 ft²
Minimum: ¾" x 2' x 4'	Tru-Fast S/P	[1]	3	1:2.67 ft²

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 Miami-Dade County Testing Application Standard TAS 105 to confirm compliance with the wind load requirements set forth in Chapter 23 of the S.F.B.C. Please refer to Miami-Dade County Roofing Application Standard RAS 117 for insulation attachment.

Base Sheet: (Optional if ply sheet is used) Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the insulated substrate with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.

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Ply Sheet: (Optional) One (base sheet required), two or three plies of Tough Ply IV or Ultra Ply VI or one ply of Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the insulation or base sheet with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.

Membrane: Intec Flex FR 3HS, Intec Flex 190FR, Intec Flex 250FR, Intec Flex FR 4.5, Intec Flex Dual FR, Intec Flex 190, Permaglas SBS, Permaglas SBS FR or Intec Flex M adhered with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.

Surfacing: (Optional, in place of membrane) One or more plies of Ultra Base, Flex Base 30, Flex Base 60 FR, Intec Modified Base Plus or Intec Flex S adhered with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq. and surfaced with a flood coat of asphalt at a minimum rate of 60 lbs./sq. and 400 lbs. of aggregate.

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

Maximum Fire Classification: See General Limitation # 1.

Maximum Slope: See General Limitation #1.

Specification No.: See manufacturer's specification manual.

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Membrane Type: APP

Deck Type 1I: Wood, Insulated, New Construction

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

System Type D: All layers of insulation and base sheet simultaneously fastened.

All General and System Limitations apply.

Insulation Base Layer	Fastener Type	Fastening Detail No.	Fasteners Per Board	Fastener Density
One or more layers of any of the following insulations:				
Approved Type(s): **USIso, ACFoam II, Multi-Max, Multi-Max FA, Pyrox, Whiteline**				
Minimum: 1.3" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **E'NRG'Y-2**				
Minimum: 1.4" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **BMCA Permalite**				
Minimum: ¾" x 2' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **BMCA Permalite Recover (Top Layer Only)**				
Minimum: ½" x 2' x 4'	N/A	N/A	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously fastened. See base sheet below for fasteners and density.

Base Sheet: Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth fastened to the deck as described below:

Fastening: Fasten base sheet with Drill-Tec fasteners and Drill-Tec Metal Plates at a 2" side lap 12" o.c. and two rows staggered in the center of the sheet 18" o.c.

Ply Sheet: (Optional) One, two or three plies of Tough Ply IV or Ultra Ply VI or one ply of Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the base sheet with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq., or one ply of SP4 or Flex Cap APP 4S torch welded to the base sheet.

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Membrane: Intec SP-4, Flex Cap APP 4S, Intec GBSP-4FR, Intec GBSP-250FR, Intec GBSP-4 or Flex Cap APP 4.5M torch welded to substrate.

Surfacing: Install liquid roof coating if using Intec SP-4 or Flex Cap APP4S as membrane. See General Limitations #1.

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

Maximum Fire Classification: See General Limitation # 1.

Maximum Slope: See General Limitation #1.

Specification No.: See manufacturer's specification manual.

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Membrane Type: SBS

Deck Type 1I: Wood, Insulated, New Construction

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank

System Type D: All layers of insulation and base sheet simultaneously fastened.

All General and System Limitations apply.

Insulation Base Layer	Fastener Type	Fastening Detail No.	Fasteners Per Board	Fastener Density
One or more layers of any of the following insulations:				
Approved Type(s): **USIso, ACFoam II, Multi-Max, Multi-Max FA, Pyrox, Whiteline**				
Minimum: 1.3" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **E'NRG'Y-2**				
Minimum: 1.4" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **USIso/Perlite Composite**				
Minimum: 1.5" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **BMCA Permalite**				
Minimum: ¾" x 2' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): **BMCA Permalite Recover (Top Layer Only)**				
Minimum: ½" x 2' x 4'	N/A	N/A	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously fastened. See base sheet below for fasteners and density.

Base Sheet: Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth fastened to the deck as described below:

Fastening: Fasten base sheet with Drill-Tec fasteners and Drill-Tec Metal Plates at a 2" side lap 12" o.c. and two rows staggered in the center of the sheet 18" o.c.

Ply Sheet: (Optional) One, two or three plies of Tough Ply IV or Ultra Ply VI or one ply of Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the base sheet with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.

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Membrane: Intec Flex FR 3HS, Intec Flex 190FR, Intec Flex 250FR, Intec Flex FR 4.5, Intec Flex Dual FR, Intec Flex 190, Permaglas SBS, Permaglas SBS FR or Intec Flex M adhered with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.

Surfacing: (Optional, in place of membrane) One or more plies of Ultra Base, Flex Base 30, Flex Base 60 FR, Intec Modified Base Plus or Intec Flex S adhered with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq. and surfaced with a flood coat of asphalt at a minimum rate of 60 lbs./sq. and 400 lbs. of aggregate.

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

Maximum Fire Classification: See General Limitation # 1.

Maximum Slope: See General Limitation #1.

Specification No.: See manufacturer's specification manual.

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Membrane Type: APP

Deck Type 1: Wood, Non-insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank decks

System Type E: Base sheet mechanically fastened

All General and System Limitations apply.

Fire Barrier: (Optional) Type X gypsum board, Dens Deck loose laid over deck or Fire Shield at an application rate of ¼ to ½ gal./sq.

Base Sheet: Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S, Intec Flex G4 Smooth or Permavent fastened to the deck as described below:

Fastening: Fasten base sheet with Drill-Tec fasteners and Drill-Tec Metal Plates at a 2" side lap 12" o.c. and two rows staggered in the center of the sheet 18" o.c.

Ply Sheet: (Optional) One, two or three plies of Tough Ply IV or Ultra Ply VI or one ply of Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the base sheet with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq., or one ply of SP4 or Flex Cap APP 4S torch welded to the base sheet.

Membrane: Intec SP-4, Flex Cap APP 4S, Intec GBSP-4FR, Intec GBSP-250FR, Intec GBSP-4 or Flex Cap APP 4.5M torch welded to substrate.

Surfacing: Install liquid roof coating if using Intec SP-4 or Flex Cap APP4S as membrane. See General Limitations #1.

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

Maximum Fire Classification: See General Limitation # 1.

Maximum Slope: See General Limitation # 1.

Specification No.:See manufacturer's specification manual.

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Membrane Type: SBS

Deck Type 1: Wood, Non-insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank decks

System Type E: Base sheet mechanically fastened

All General and System Limitations apply.

Fire Barrier: (Optional) Type X gypsum board, Dens Deck loose laid over deck or Fire Shield at an application rate of ¼ to ½ gal./sq.

Base Sheet: Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S, Intec Flex G4 Smooth or Permavent fastened to the deck as described below:

Fastening: Fasten base sheet with Drill-Tec fasteners and Drill-Tec Metal Plates at a 2" side lap 12" o.c. and two rows staggered in the center of the sheet 18" o.c.

Ply Sheet: (Optional) One, two or three plies of Tough Ply IV or Ultra Ply VI or one ply of Ultra Base, Flex Base 30, Flex Base 60 FR, Flex Base 60 FRHS, Intec Modified Base Plus, Intec Modified Base Plus HS, Intec Modified Base 190P, Intec Flex S or Intec Flex G4 Smooth adhered to the base sheet with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq.

Membrane: Intec Flex FR 3HS, Intec Flex 190FR, Intec Flex 250FR, Intec Flex FR 4.5, Intec Flex Dual FR, Intec Flex 190, Permaglas SBS, Permaglas SBS FR or Intec Flex M adhered with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq

Surfacing: (Optional, in place of membrane) One or more plies of Ultra Base, Flex Base 30, Flex Base 60 FR, Intec Modified Base Plus or Intec Flex S adhered with a full mopping of approved asphalt applied at a rate of 20-35 lbs./sq. and surfaced with a flood coat of asphalt at a minimum rate of 60 lbs./sq. and 400 lbs. of aggregate.

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

Maximum Fire Classification: See General Limitation # 1.

Maximum Slope: See General Limitation # 1.

Specification No.:See manufacturer's specification manual.

Frank Zuloaga, RRC
Roofing Product Control Examiner

WOOD DECK SYSTEM LIMITATIONS:

1 A red rosin sheet shall be installed on all wood plank decks to eliminate asphalt seepage and bonding of the base sheet to wood plank decks. Red rosin sheet may also be installed on plywood decks as an option.

2 Pre-assembled cap nails shall not be used for base sheet attachment.

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 applied 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 may 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 TAS 105. If the fastener value, as field-tested, is 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 the 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 Engineer or Architect may be submitted. Said revised fastener spacing utilize the withdrawal resistance value taken from Miami-Dade Protocol TAS 105 and calculations in compliance with Miami-Dade Roofing Application Standard RAS 117.

7 Perimeter and corner areas shall comply with the enhanced uplift pressure of these areas, as calculated in compliance with Chapter 23 of the South Florida Building Code. Fastener densities shall be increase for both insulation and base sheet as needed calculated in compliance with Miami-Dade Roofing Application Standard TAS 117. **(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 Miami-Dade County Roofing Application Standard TAS 111 and the wind load requirements of Chapter 23 of the South Florida Building Code.

9 The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, corners). No 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.)**

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NOTICE OF ACCEPTANCE STANDARD CONDITIONS

1 Renewal of this Acceptance (approval) shall be considered after a renewal application has been filed and the original submitted documentation, including test supporting data, engineering documents, are no older than eight (8) years.

2 Any and all approved products shall be permanently labeled with the manufacturer's name, city, state, and the following statement: "Miami-Dade County Product Control Approved", or as specifically stated in the specific conditions of this Acceptance.

3 Renewals of Acceptance will not be considered if:
a) There has been a change in the South Florida Building Code affecting the evaluation of this product and the product is not in compliance with the code changes;
b) The product is no longer the same product (identical) as the one originally approved;
c) If the Acceptance holder has not complied with all the requirements of this acceptance, including the correct installation of the product;
d) The engineer who originally prepared, signed and sealed the required documentation initially submitted, is no longer practicing the engineering profession.

4 Any revision or change in the materials, use, and/or manufacture of the product or process shall automatically be cause for termination of this Acceptance, unless prior written approval has been requested (through the filing of a revision application with appropriate fee) and granted by this office.

5 Any of the following shall also be grounds for removal of this Acceptance:
a) Unsatisfactory performance of this product or process;
b) Misuse of this Acceptance as an endorsement of any product, for sales, advertising or any other purposes.

6 The Notice of Acceptance 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 Notice of Acceptance is displayed, then it shall be done in its entirety.

7 A copy of this Acceptance as well as approved drawings and other documents, where it applies, shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at all times. The copies need not be resealed by the engineer.

8 Failure to comply with any section of this Acceptance shall be cause for termination and removal of Acceptance.

9 This Acceptance contains pages 1 through 32.

END OF THIS ACCEPTANCE

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Roofing Product Control Examiner