



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

**CONTRACTOR LICENSING SECTION**  
(305) 375-2527 FAX (305) 375-2558

**CONTRACTOR ENFORCEMENT DIVISION**  
(305) 375-2966 FAX (305) 375-2908

**PRODUCT CONTROL DIVISION**  
(305) 375-2902 FAX (305) 372-6339

**PRODUCT CONTROL NOTICE OF ACCEPTANCE**

**Carlisle SynTec Incorporated**  
**P. O. Box 7000**  
**Carlisle, PA 17013**

Your application for Notice of Acceptance (NOA) of:

**EPDM Roof Systems for Steel Decks**

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 NOA shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at any time 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 by 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.: 01-0504.06**  
**EXPIRES: 06/28/2006**

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 Miami-Dade County, Florida under the conditions set forth above.

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

**APPROVED: 06/28/2001**

**ROOFING SYSTEM APPROVAL**

Category: Roofing  
Sub-Category: Single Ply

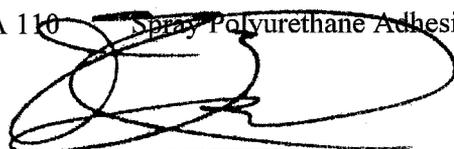
Approval Date: June 28, 2001

Expiration Date: June 28, 2006

Material: EPDM  
Deck Type: Steel  
Maximum Design Pressure -68 psf  
Fire Classification: See General Limitation #1

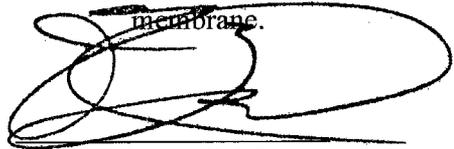
**TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:**

<u>Product Name</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
Brite-Ply EP-95 Splicing Cement		PA 110	Splicing Adhesive for Brite-Ply membranes.
Brite-Ply EPDM	various	ASTM D 4637	Non-reinforced white on black EPDM membrane.
Brite-Ply Fleece BACK EPDM	Various	ASTM D4637	Non-reinforced white on black fleece backed EPDM membrane.
Brite-Ply Lap Sealant		PA 110	Lap Sealant for Brite-Ply membranes.
Brite-Ply Reinforced	various	ASTM D 4637	Reinforced white on black EPDM membrane.
Carlisle Foamular Durapink Insulation	various	PA 110	Extruded Polystyrene for white or black mechanically fastened roof systems.
Carlisle Foamular ½" Board	various	PA 110	Extruded Polystyrene recovery board.
Carlisle Foamular 150, 250, 400, 404, 600	various	PA 110	Extruded Polystyrene insulation
Carlisle Foamular Durapink-FA Insulation	various	PA 110	Extruded Polystyrene for white or black adhered system.
CCW 702 Primer	various	PA 110	Solvent-Based Primer
CCW 702LT Primer	various	PA 110	Low-Temperature Solvent-Based Primer
CCW 714 Primer	various	PA 110	Water-Based Primer
CCW 725 Vapor Barrier	various	PA 110	40 mil Vapor Barrier
Fast 100 Adhesive	various	PA 110	Spray Polyurethane Adhesive
Fast 100-P Adhesive	various	PA 110	Spray Polyurethane Adhesive
Fast 102 Adhesive	various	PA 110	Spray Polyurethane Adhesive



Frank Zuloaga, RRC  
 Roofing Product Control Examiner

<u>Product Name</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
Polyisocyanurate HP-W	various	PA 110	Polisocyanurate roof insulation.
Polyisocyanurate HP	various	PA 110	Polyisocyanurate roof insulation.
Polyisocyanurate HP-N	various	PA 110	Polyisocyanurate roof insulation.
Sure Seal FR-Plus EPDM	various	ASTM D 4637	Non-reinforced, fire retardant EPDM membrane.
Sure Seal EPS Insulation	various	PA 110	Expanded Polystyrene.
Sure Seal EP-95 Splicing Cement		PA 110	Splicing adhesive for Sure-Seal membranes.
Sure-Seal 90-8-30A Bonding Adhesive		PA 110	Standard bonding adhesive.
SureSeal FR Fleece BACK and AFX EPDM	Various	ASTM D 4637	Non-reinforced fire retardant fleece backed EPDM membranes
Sure-Seal FR EPDM	various	ASTM D 4637	Non-reinforced, fire retardant EPDM membrane.
Sure-Seal Reinforced FR EPDM	various	ASTM D 4637	Reinforced, fire retardant EPDM membrane.
Sure-Seal Lap Sealant		PA 110	Lap Sealant for Sure-Seal membranes
Sure-Seal Insulation Plates	2 7/8" dia.	PA 114	Metal plates used for insulation securement.
Sure-Seal EPS/Fiberboard	various	PA 110	High Density Wood Fiberboard bonded to EPS.
Sure-Seal HP Recovery Board	various	PA 110	High Density Wood Fiberboard.
Sure-Seal Reinforced EPDM	various	ASTM D 4637	Reinforced EPDM membrane.
Sure-Seal HP Concrete Spikes	¼" dia.	PA 114	Driven fasteners used for insulation and membrane securement in concrete decks.
Sure-Seal Polymer Seam Plates	2" dia.	PA 114	Plastic plates used for membrane securement with Sure-Seal fasteners.
Sure-Seal B-500 Bonding Adhesive		PA 110	Water-based bonding adhesive.
Sure-Seal Lightweight Insulation Plates	3" dia.	PA 114	Metal plates used for insulation securement with HP Lightweight Fasteners.
Sure-Seal HP Lightweight Fasteners	0.687 dia.	PA 114	Threaded plastic fasteners for insulation and membrane securement in lightweight deck materials.
Sure-Seal Standard EPDM	various	ASTM D 4637	Non-reinforced EPDM membrane.

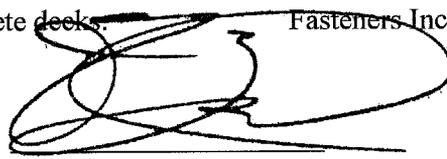


Frank Zuloaga, RRC  
Roofing Product Control Examiner

<u>Product Name</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
Sure-Seal Seam Fastening Plates	2" dia.	PA 114	Metal plates used for membrane securement with Sure-Seal fasteners.
Sure-Seal HP Locking Seam Plates	2" dia.	PA 114	Metal plates with plastic inserts used for membrane securement with Sure-Seal fasteners.
Sure-Seal Lightweight Seam Plates	2" dia.	PA 114	Metal plates used for membrane securement with HP Lightweight Fasteners.
Sure-Seal HP Fasteners	#14	PA 114	Threaded fasteners used for insulation and membrane securement in steel, wood and concrete decks.

**TRADE NAMES OF PRODUCTS MANUFACTURED BY OTHERS:**

<u>Product Name</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
Hy Therm	various	PA 110	Polyisocyanurate foam insulation	Apache Products Co.
Pyrox	various	PA 110	Polyisocyanurate foam insulation	Apache Products Co.
White Line	various	PA 110	Polyisocyanurate foam insulation	Apache Products Co.
ACFoam II	various	PA 110	Polyisocyanurate foam insulation	Atlas Energy Products
Celcore		PA 110	Cellular insulating concrete system	Celcore, Inc.
Hy-Therm Stable R	various	PA 110	Polyisocyanurate foam insulation	Celotex Corp.
Star AP	various	PA 110	Polyisocyanurate foam insulation	Celotex Corp.
Star SP	various	PA 110	Polyisocyanurate foam insulation	Celotex Corp.
Tristar	various	PA 110	Polyisocyanurate foam insulation	Celotex Corp.
Dekfast Fasteners #12		PA 114	Insulation fastener for steel and wood decks.	Construction Fasteners Inc.
Dekfast Fasteners #14		PA 114	Insulation fastener for steel and concrete decks.	Construction Fasteners Inc.

  
 Frank Zuloaga, RRC  
 Roofing Product Control Examiner

<u>Product Name</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
Dekfast Fasteners #15		PA 114	Insulation fastener for steel and concrete.	Construction Fasteners, Inc.
Dekfast Hex Plate	2 7/8" x 3 1/4"	PA 114	Galvalume hex stress plate.	Construction Fasteners Inc.
Styrofoam	2' x 8'	PA 110	Extruded polystyrene insulation	Dow
Elastizell		PA 110	Cellular insulating concrete system	Elastizell Corp.
ISO 95+ GL, 95+ GW		PA 110	Polyisocyanurate foam insulation	Firestone
High Density Wood Fiberboard	various	PA 110	Wood fiber insulation board	generic
Perlite/Urethane Composite	various	PA 110	Perlite/urethane composite insulation board	generic
Sturdi-Top	various	PA 110	Wood fiber insulation board.	Georgia Pacific
Ultra/M-II	various	PA 110	Polyisocyanurate foam insulation	Homasote Co.
Insta-Stick	various	PA 110	Polyisocyanurate foam insulation	Insta-Foam
#12 Roofgrip		PA 114	Insulation fastener	ITW Buildex
#14 Roofgrip		PA 114	Insulation fastener	ITW Buildex
E'NERG'Y PSI-25	various	PA 110	Polyisocyanurate foam insulation	Johns Manville
E'NRG'Y-2	various	PA 110	Polyisocyanurate foam insulation	Johns Manville
CD-10 Fastener		PA 114	Insulation fastener	Olympic Manufacturing Group, Inc.
Con-Tite		PA 114	Concrete deck insulation fastener	Olympic Manufacturing Group, Inc.
Lite-Deck Fastener		PA 114	Insulation fastener	Olympic Manufacturing Group, Inc.



Frank Zuloaga, RRC  
Roofing Product Control Examiner

<u>Product Name</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
N.T.B. Magnum		PA 114	Glass reinforced nylon fastener for use in gypsum and cementitious wood fiber decks.	Olympic Manufacturing Group, Inc.
Olympic Fastener #12 & #14		PA 114	Insulation fastener	Olympic Manufacturing Group, Inc.
Multi-Max FA	various	PA 110	Polyisocyanurate foam insulation	RMAX
HD Insul-Fixx Fastener		PA 114	Insulation fastener for use in steel and concrete decks	SFS/Stadler
Insul-Fixx Fastener		PA 114	Insulation fastener for steel and wood decks	SFS/Stadler
Insul-Fixx S	3" square	PA 114	3" square galvalume AZ55 stress plate	SFS/Stadler
Insul-Fixx P	3" round	PA 114	3" round polyethylene stress plate	SFS/Stadler
Isofast Plate	various	PA 114	Square or oblong galvalume steel plates for use with Isofast fasteners	SFS/Stadler
Isofast Fasteners		PA 114	Insulation fastener for steel and wood decks	SFS/Stadler
Rawl Fasteners #14		PA 114	Insulation fastener for use in steel, wood or concrete	The Rawlplug Company Inc.
Rawl Drive		PA 114	Insulation fastener and steel and plastic stress plate for concrete deck	The Rawlplug Company Inc.
Rawl Fasteners #12		PA 114	Insulation fastener for steel and wood decks	The Rawlplug Company Inc.
Rawl Spike		PA 114	Insulation fastener and steel and plastic stress plate for concrete deck	The Rawlplug Company Inc.
Rawl Speed-Lock Toggle Bolt		PA 114	Insulation fastener assembly	The Rawlplug Company Inc.
Rawlite		PA 114	Insulation fastener for cementitious and gypsum decks	The Rawlplug Company Inc.
Tru-Fast CF Fasteners		PA 114	Insulation fastener for concrete decks	Tru-Fast

  
 Frank Zuloaga, RRC  
 Roofing Product Control Examiner

<u>Product Name</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
Tru-Fast Ultra		PA 114	Stainless Steel fastener for use in steel, wood and concrete decks	Tru-Fast
Tru-Fast Plastic Plate	3.04" round	PA 114	3.04" round polyethylene plastic plate	Tru-Fast
Tru-Fast DL		PA 114	Glass reinforced nylon fastener for use in tectum or gypsum decks	Tru-Fast
Tru-Fast TP		PA 114	Insulation fastener for use in steel or wood decks	Tru-Fast
Tru-Fast HD		PA 114	Insulation fastener for use in wood, steel or concrete decks	Tru-Fast
Tru-Fast MP-3	3.23" round	PA 114	3.23" round galvalume AZ50 steel plate	Tru-Fast
Tru-Fast DP		PA 114	Insulation fastener for use in steel or wood decks	Tru-Fast
Insulcel		PA 110	Cellular insulating concrete system	W.R. Grace
Structodeck	various	PA 110	High Density Wood Fiber insulation board.	Wood Fiber Industries

**EVIDENCE SUBMITTED:**

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Architectural Testing Inc.	ATI-17214	Wind Uplift Classification	03/20/96
Architectural Testing Inc.	ATI-17601-01	Wind Uplift Classification	06/29/96
Architectural Testing Inc.	ATI-17601-02	Wind Uplift Classification	07/30/96
Architectural Testing Inc.	ATI-18535	Wind Uplift Classification	10/14/96
Factory Mutual Research Corporation	J.I. 2X7A4.AM	Letter	03/07/94
Factory Mutual Research Corporation	J.I.1B7A5.AM	Wind Uplift and Fire Classification	02/23/98
Factory Mutual Research Corporation	1998 Approval Guide Building Materials	Wind Uplift and Fire Classifications	01/01/98
Factory Mutual Research Corporation	J.I. 2Z3A9.AM	Wind Uplift and Fire Classification	07/30/97



Frank Zuloaga, RRC  
Roofing Product Control Examiner

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Factory Mutual Research Corporation	J.I. 4B2A1.AM	Wind Uplift Classification	06/11/97
Factory Mutual Research Corporation	J.I.3B8Q4.AM	Wind Uplift Classification	06/04/97
Factory Mutual Research Corporation	J.I. 0B4A7.AM	Wind Uplift Classification	05/29/97
Factory Mutual Research Corporation	J.I. 2B2A1.AM	Wind Uplift Classification	05/29/97
Factory Mutual Research Corporation	J.I. 2Z2A8.AM	Seam Test	05/16/97
Factory Mutual Research corporation	J.I. 3B5A1.AM	Wind Uplift and Fire Classification	04/28/97
Factory Mutual Research Corporation	J.I.1Z2A7.AM	Fire Classification	03/20/96
Factory Mutual Research Corporation	Letter	Product Equivalent	05/05/95
Factory Mutual Research Corporation	J.I. 3Y7Q2.AM	Corrosion Test	03/14/95
Factory Mutual Research Corporation	J.I. 1Y2A1.AM	Seam Test	02/23/95
Factory Mutual Research Corporation	J.I. 2X7A4.AM	Wind Uplift Classification	02/09/95
Factory Mutual Research Corporation	J.I.3X5A2.AM	Hail Damage Testing	07/18/94
Factory Mutual Research Corporation	Letter	Wind Uplift Classification	05/07/94
Factory Mutual Research Corporation	J.I. 2D6A6.AM	Wind Uplift Classification	10/7/98
Factory Mutual Research Corporation	Letter	Wind Uplift Classification	09/15/98
Factory Mutual Research Corporation	J.I. 4D9A6.AM	Approval Report	08/03/98
Underwriters Laboratories, Inc.	96NK21757	Fire Classification	09/06/96
Underwriters Laboratories, Inc.	96NK10924	Fire Classification	10/31/96
Underwriters Laboratories, Inc.	96NK28871	Fire Classification	11/06/96
Underwriters Laboratories, Inc.	96NK33323	Fire Classification	10/24/97
Underwriters Laboratories, Inc.	1998Roofing Materials & Systems Directory	R8103 Fire Classification	01/01/98
Underwriters Laboratories, Inc.	Letter	Fire Classification	08/06/98
Underwriters Laboratories, Inc.	Letter	Fire Classification	09/09/98
Warnock Hersey	634-308500	Wind Uplift	06/04/93

  
 Frank Zuloaga, RRC  
 Roofing Product Control Examiner

**APPROVED ASSEMBLIES**

**Membrane Type:** Single Ply, Thermoset, EPDM, Reinforced, Nonreinforced, Fleece Backed

**Deck Type 2I:** Steel, Insulated, New Construction

**Deck Description:** 18-22 ga. steel

**System Type C:** All layers of insulation simultaneously attached; membrane fully adhered.

**All General and System Limitations apply.**

<u>Insulation Base Layer</u>	<u>Fastener Type</u>	<u>Fastening Detail No.</u>	<u>Fasteners Per Board</u>	<u>Fastener Density</u>
------------------------------	----------------------	-----------------------------	----------------------------	-------------------------

**One of the following covered with the boards listed in Top Layer or Base or Top Layer.**

Approved Type(s): <b>Extruded Polystyrene</b> Minimum: 1" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): <b>Energy-Lok, ACFoam - I</b> Minimum: 1" x 3' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): <b>Perlite</b> Minimum: ¾" x 2' x 4'	N/A	N/A	N/A	N/A

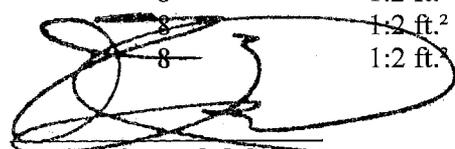
**Note: All layers shall be simultaneously fastened; see top or base layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Single and multiple layers of insulation can be adhered with FAST Adhesive in a full coverage application. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

<u>Insulation Base or Top Layer</u>	<u>Fastener Type</u>	<u>Fastening Detail No.</u>	<u>Fasteners Per Board</u>	<u>Fastener Density</u>
-------------------------------------	----------------------	-----------------------------	----------------------------	-------------------------

**One or more layers of the following:**

Approved Type(s): <b>ACFoam II</b>				
Minimum: 1.5" x 3' x 4'	Sure-Seal HP Fastener	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Olympic Stainless #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Olympic #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Rawl #12, 14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.3" x 3' x 4'	Isofast #10, #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.5" x 4' x 4'	Sure-Seal HP Fastener	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Sure-Seal HP Fastener	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Insulfixx HD S	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Tru-Fast Ultra Stainless	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Tru-Fast #10, #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Insta-Lock	[3]	8	1:2 ft. <sup>2</sup>

Approved Type(s): <b>E'NRG'Y-2, PSI-25</b>				
Minimum: 1.4" x 4' x 4'	Insulfixx SP	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	RoofGrip #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	Sure-Seal HP Fastener	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	Dekfast #12, #14, #15	[3]	8	1:2 ft. <sup>2</sup>

  
 Frank Zuloaga, RRC  
 Roofing Product Control Examiner

Minimum: 1.4" x 4' x 4'	Perma-Fastener #12, #14, #15	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	Olympic Stainless #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	Olympic #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	Rawl #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	Tru-Fast Ultra Stainless	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	Tru-Fast #10, #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Insulfixx SP	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	RoofGrip #12, #14	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Sure-Seal HP Fastener	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Dekfast #12, #14, #15	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Perma-Fastener #12, #14, #15	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Olympic Stainless #12, #14	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Olympic #12, #14	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Rawl #12, #14	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Tru-Fast Ultra Stainless	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Tru-Fast #10, #12, #14	[3]	4	1:4 ft. <sup>2</sup>

Approved Type(s): **HP Recovery**

Minimum: ½" x 4' x 4'	Sure-Seal HP Fastener	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	Insulfixx HD	[1]	4	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	RoofGrip #12, #14	[1]	4	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	Sure-Seal HP Fastener	[1]	4	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	Dekfast #12, #14, #15	[1]	4	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	Olympic Stainless #12, #14	[1]	4	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	Olympic #12, #14	[1]	4	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	Rawl #12, #14	[1]	4	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	Tru-Fast Ultra Stainless	[1]	4	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	Tru-Fast #10, #12, #14	[1]	4	1:2 ft. <sup>2</sup>

Approved Type(s): **High Density Fiberboard**

Minimum: ¾" x 4' x 4'	RoofGrip #12, #14	[3]	6	1:2.67 ft. <sup>2</sup>
Minimum: ¾" x 4' x 4'	Dekfast #12, #14, #15	[3]	6	1:2.67 ft. <sup>2</sup>
Minimum: ¾" x 4' x 4'	Olympic Stainless #12, #14	[3]	6	1:2.67 ft. <sup>2</sup>
Minimum: ¾" x 4' x 4'	Olympic #12, #14	[3]	6	1:2.67 ft. <sup>2</sup>
Minimum: ¾" x 4' x 4'	Rawl #12, #14	[3]	6	1:2.67 ft. <sup>2</sup>
Minimum: ¾" x 4' x 4'	Tru-Fast Ultra Stainless	[3]	6	1:2.67 ft. <sup>2</sup>
Minimum: ¾" x 4' x 4'	Tru-Fast #10, #12, #14	[3]	6	1:2.67 ft. <sup>2</sup>

Approved Type(s): **WHITELINE, PYROX, AP**

Minimum: 1.2" x 4' x 4'	Insulfixx SP	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 4' x 4'	RoofGrip #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 4' x 4'	Sure-Seal HP Fastener	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 4' x 4'	Dekfast #12, #14, #15	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 4' x 4'	Perma-Fastener #12, #14, #15	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 4' x 4'	Olympic Stainless #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 4' x 4'	Olympic #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 4' x 4'	Rawl #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 4' x 4'	Tru-Fast Ultra Stainless	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 4' x 4'	Tru-Fast #10, #12, #14	[3]	8	1:2 ft. <sup>2</sup>

Approved Type(s): **ISO 95+GL, HF, Rhoflex GL, HF**

Minimum: 1.4" x 3' x 4'	Insulfixx SP	[2]	4	1:3 ft. <sup>2</sup>
-------------------------	--------------	-----	---	----------------------



Frank Zuloaga, RRC  
Roofing Product Control Examiner

Minimum: 1.4" x 3' x 4'	RoofGrip #12, #14	[2]	4	1:3 ft. <sup>2</sup>
Minimum: 1.4" x 3' x 4'	Perma-Fastener #12, #14, #15	[2]	4	1:3 ft. <sup>2</sup>
Minimum: 1.4" x 3' x 4'	Olympic Stainless #12, #14	[2]	4	1:3 ft. <sup>2</sup>
Minimum: 1.4" x 3' x 4'	Olympic #12, #14	[2]	4	1:3 ft. <sup>2</sup>
Minimum: 1.4" x 3' x 4'	Rawl #12, #14	[2]	4	1:3 ft. <sup>2</sup>
Minimum: 1.4" x 3' x 4'	Tru-Fast Ultra Stainless	[2]	4	1:3 ft. <sup>2</sup>
Minimum: 1.4" x 3' x 4'	Tru-Fast #10, #12, #14	[2]	4	1:3 ft. <sup>2</sup>
Minimum: 1.2" x 3' x 4'	Insulfixx SP	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 3' x 4'	RoofGrip #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 3' x 4'	Dekfast #12, #14, #15	[2]	6	1:2 ft. <sup>2</sup>

Approved Type(s): **Multi-Max FA**

Minimum: 1.2" 3' x 4'	Insulfixx SP	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" 3' x 4'	RoofGrip #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" 3' x 4'	Dekfast #12, #14, #15	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" 3' x 4'	Perma-Fastener #12, #14, #15	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" 3' x 4'	Olympic Stainless #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" 3' x 4'	Olympic #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" 3' x 4'	Rawl #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" 3' x 4'	Tru-Fast Ultra Stainless	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" 3' x 4'	Tru-Fast #10, #12, #14	[2]	6	1:2 ft. <sup>2</sup>

Approved Type(s): **ACFoam Composite, Rhoflex Composite, Fesco Foam**

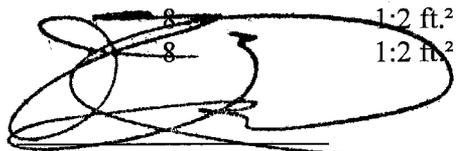
Minimum: 1.5" x 3' x 4'	Insulfixx SP	[2]	4	1:3 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	RoofGrip #12, #14	[2]	4	1:3 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Sure-Seal HP Fastener	[2]	4	1:3 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Dekfast #12, #14, #15	[2]	4	1:3 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Perma-Fastener #12, #14, #15	[2]	4	1:3 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Olympic Stainless #12, #14	[2]	4	1:3 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Olympic #12, #14	[2]	4	1:3 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Rawl #12, #14	[2]	4	1:3 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Tru-Fast Ultra Stainless	[2]	4	1:3 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Tru-Fast #10, #12, #14	[2]	4	1:3 ft. <sup>2</sup>

Approved Type(s): **Polyisocyanurate HP-W**

Minimum: 1.5" x 3' x 4'	Sure-Seal HP Fastener	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Olympic Stainless #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Olympic #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Rawl #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Isofast #10, #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Sure-Seal HP Fastener	[2]	5	1:3.2 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Sure-Seal HP Fastener	[2]	4	1:4 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Insulfixx HD	[2]	4	1:4 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Tru-Fast #10, #12, #14	[2]	4	1:4 ft. <sup>2</sup>
Minimum: 1.5" x 3' x 4'	Tru-Fast Ultra Stainless	[2]	4	1:4 ft. <sup>2</sup>

Approved Type(s): **Polyisocyanurate HP**

Minimum: 1.2" x 4' x 4'	Insulfixx HD	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 4' x 4'	RoofGrip #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 4' x 4'	Sure-Seal HP Fastener	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 4' x 4'	Perma-Fastener #12, #14, #15	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 4' x 4'	Olympic Stainless #12, #14	[3]	8	1:2 ft. <sup>2</sup>



Frank Zuloaga, RRC  
Roofing Product Control Examiner

Minimum: 1.2" x 4' x 4'	Olympic #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 4' x 4'	Rawl #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 4' x 4'	Tru-Fast Ultra Stainless	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 4' x 4'	Tru-Fast #10, #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.5" x 4' x 4'	Sure-Seal HP Fastener	[3]	5	1:3.2 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Sure-Seal HP Fastener	[3]	4	1:4 ft. <sup>2</sup>

Approved Type(s): **Polyisocyanurate HP-N**

Minimum: 1.4" x 4' x 4'	Insulfixx HD S	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	RoofGrip #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	Sure-Seal HP Fastener	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	Dekfast #12, #14, #15	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	Perma-Fastener #12, #14, #15	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	Olympic Stainless #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	Olympic #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	Rawl #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	Tru-Fast Ultra Stainless	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	Tru-Fast #10, #12, #14	[3]	8	1:2 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Insulfixx HD S	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	RoofGrip #12, #14	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 1.4" x 4' x 4'	Sure-Seal HP Fastener	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Dekfast #12, #14, #15	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Perma-Fastener #12, #14, #15	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Olympic Stainless #12, #14	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Olympic #12, #14	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Rawl #12, #14	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Tru-Fast Ultra Stainless	[3]	4	1:4 ft. <sup>2</sup>
Minimum: 2" x 4' x 4'	Tru-Fast #10, #12, #14	[3]	4	1:4 ft. <sup>2</sup>

Approved Type(s): **Structodeck**

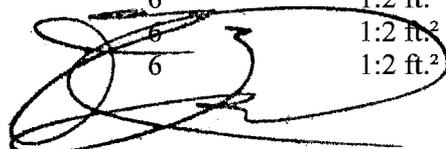
Minimum: ½" x 4' x 4'	Dekfast #12, #14, #15	[3]	8	1:8 ft. <sup>2</sup>
Minimum: ½" x 4' x 4'	Olympic Stainless #12, #14	[3]	8	1:8 ft. <sup>2</sup>
Minimum: ½" x 4' x 4'	Olympic #12, #14	[3]	8	1:8 ft. <sup>2</sup>
Minimum: ½" x 4' x 4'	Rawl #12, #14	[3]	8	1:8 ft. <sup>2</sup>

Approved Type(s): **Thermax Star AP, TRISTAR, Hy-Therm STABLE R**

Minimum: 1.2" x 3' x 4'	Insulfixx HD S	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 3' x 4'	RoofGrip #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 3' x 4'	Dekfast #12, #14, #15	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 3' x 4'	Olympic Stainless #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 3' x 4'	Olympic #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 3' x 4'	Rawl #12, #14	[2]	6	1:2 ft. <sup>2</sup>

Approved Type(s): **Ultra/M-II Iso/glas**

Minimum: 1.2" x 3' x 4'	Insulfixx HD S	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 3' x 4'	RoofGrip #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 3' x 4'	Dekfast #12, #14, #15	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 3' x 4'	Olympic Stainless #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 3' x 4'	Olympic #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 3' x 4'	Rawl #12, #14	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 3' x 4'	Tru-Fast Ultra Stainless	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 3' x 4'	Tru-Fast #10, #12, #14	[2]	6	1:2 ft. <sup>2</sup>



Frank Zuloaga, RRC  
Roofing Product Control Examiner

Minimum: 1.2" x 3' x 4'	Perma-Fastener #12, #14, #15	[2]	6	1:2 ft. <sup>2</sup>
Minimum: 1.2" x 3' x 4'	Sure-Seal HP Fastener	[2]	6	1:2 ft. <sup>2</sup>
<b>Approved Type(s): Wood Fiber</b>				
Minimum: 1" x 2' x 4'	Insulfixx HD S	[1]	4	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	RoofGrip #12, #14	[1]	4	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	Dekfast #12, #14, #15	[1]	4	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	Olympic Stainless #12, #14	[1]	4	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	Olympic #12, #14	[1]	4	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	Rawl #12, #14	[1]	4	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	Tru-Fast Ultra Stainless	[1]	4	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	Tru-Fast #10, #12, #14	[1]	4	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	Perma-Fastener #12, #14, #15	[1]	4	1:2 ft. <sup>2</sup>
Minimum: 1" x 2' x 4'	Sure-Seal HP Fastener	[1]	4	1:2 ft. <sup>2</sup>

Approved Type(s): **Fiber Base**  
 Minimum: ½" x 4' x 4' Sure-Seal HP Fastener [3] 8 1:2 ft.<sup>2</sup>

<u>Insulation</u>	<u>Fastener</u>	<u>Fastening</u>	<u>Fasteners</u>	<u>Fastener</u>
<u>Top Layer</u>	<u>Type</u>	<u>Detail No.</u>	<u>Per Board</u>	<u>Density</u>

**Required over the insulations listed in Base Layer or optional over any of the insulations listed as Base or Top Layer:**

Approved Type(s): **HP Recovery** (for use over all insul. types)  
 Minimum: ½" x 4' x 4' Sure-Seal HP Fastener [3] 8 1:2 ft.<sup>2</sup>

Approved Type(s): **Fiber Base** (for use over polyisocyanurate, gypsum or perlite)  
 Minimum: ½" x 4' x 4' Sure-Seal HP Fastener [3] 8 1:2 ft.<sup>2</sup>

**Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.**

- Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.
- Barrier: None.
- Membrane #1: Sure-Seal FR, FR-PLUS, Reinforced, Reinforced FR, Brite-Ply or Brite-Ply Reinforced, 45 or 60 mil membrane fully adhered to the insulation using 90-8-30A applied to the substrate at a rate of 1 gal/60 ft.<sup>2</sup>, or B-500 applied to the substrate at 1 gal./sq. **Maximum Design Pressure –45 psf (See General Limitation #9)**
- Membrane #2: Sure-Seal FR and Brite-Ply FleeceBACK 100 or 115 mil membrane fully adhered to the insulation using FAST Adhesive applied to the substrate at a rate of 1 gal/sq. **Maximum Design Pressure –60 psf. (See General Limitation #9)**
- Membrane #3: Sure-Seal FleeceBack AFX membrane adhered to the insulation in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-25 lbs./sq. **Maximum Design Pressure – 60 psf. (See General Limitation #9).**



Frank Zuloaga, RRC  
 Roofing Product Control Examiner

- Membrane #4 Sure-Seal FR and Brite-Ply FleeceBACK 100 or 115 mil membrane fully adhered to the insulation adhered to the steel deck using FAST Adhesive applied to the substrate at a rate of 1 gal/sq. Membrane #1: Sure-Seal FR, FR-PLUS, Reinforced, Reinforced FR, Brite-Ply or Brite-Ply Reinforced, 45 or 60 mil membrane fully adhered to the insulation using 90-8-30A applied to the substrate at a rate of 1 gal/60 ft.<sup>2</sup>, or B-500 applied to the substrate at 1 gal./sq. **Maximum Design Pressure -68 psf (See General Limitation #9)**
- Surfacing: (Optional) A two part surfacing consisting of EM-8 Hypalon applied to a clean membrane surface, after a two week cure at the rate of 1 gal./150 ft.<sup>2</sup> and silica sand applied into the wet coating at a rate of 35 lbs./sq.



Frank Zuloaga, RRC  
Roofing Product Control Examiner

**Membrane Type:** Single Ply, Thermoset, EPDM, Reinforced

**Deck Type 2I:** Steel, Insulated, New Construction

**Deck Description:** 18-22 ga. steel

**System Type D:** Membrane mechanically attached over preliminary fastened insulation.

**All General and System Limitations apply.**

<u>Insulation Base Layer</u>	<u>Fastener Type</u>	<u>Fastening Detail No.</u>	<u>Fasteners Per Board</u>	<u>Fastener Density</u>
----------------------------------	--------------------------	---------------------------------	--------------------------------	-----------------------------

**One of the following covered with the boards listed in Top Layer or Base or Top Layer.**

Approved Type(s): **Extruded Polystyrene**

Minimum: 1" x 4' x 4'	N/A	N/A	N/A	N/A
-----------------------	-----	-----	-----	-----

Approved Type(s): **Energy-Lok, ACFoam - I**

Minimum: 1" x 3' x 4'	N/A	N/A	N/A	N/A
-----------------------	-----	-----	-----	-----

Approved Type(s): **Perlite**

Minimum: ¾" x 2' x 4'	N/A	N/A	N/A	N/A
-----------------------	-----	-----	-----	-----

<u>Insulation Base or Top Layer</u>	<u>Fastener Type</u>	<u>Fastening Detail No.</u>	<u>Fasteners Per Board</u>	<u>Fastener Density</u>
---	--------------------------	---------------------------------	--------------------------------	-----------------------------

**One or more layers of the following:**

Approved Type(s): **ACFoam II, ACFoam Composite, Rhoflex Composite, Fesco Foam**

Minimum: 1.5" x 3' x 4'	N/A	N/A	N/A	N/A
-------------------------	-----	-----	-----	-----

Approved Type(s): **E'NRG'Y-2, PSI-25, Polyisocyanurate HP-N**

Minimum: 1.4" x 4' x 4'	N/A	N/A	N/A	N/A
-------------------------	-----	-----	-----	-----

Approved Type(s): **HP Recovery**

Minimum: ½" x 4' x 4'	N/A	N/A	N/A	N/A
-----------------------	-----	-----	-----	-----

Approved Type(s): **High Density Fiberboard**

Minimum: ¾" x 4' x 4'	N/A	N/A	N/A	N/A
-----------------------	-----	-----	-----	-----



<u>Insulation Base or Top Layer</u>	<u>Fastener Type</u>	<u>Fastening Detail No.</u>	<u>Fasteners Per Board</u>	<u>Fastener Density</u>
---	--------------------------	---------------------------------	--------------------------------	-----------------------------

Approved Type(s): **WHITELINE, PYROX, AP, Polyisocyanurate HP, Thermax Star AP, TRISTAR, Hy-Therm STABLE R**

Minimum: 1.2" x 4' x 4'	N/A	N/A	N/A	N/A
-------------------------	-----	-----	-----	-----

Approved Type(s): **ISO 95+GL, GW, Rhoflex GL, GW, Ultra/M-II Iso/glas**

Minimum: 1.4" x 3' x 4'	N/A	N/A	N/A	N/A
-------------------------	-----	-----	-----	-----

Approved Type(s): **ISO 95+ HF, Rhoflex HF, Multi-Max FA**

Minimum: 1.2" x 3' x 4'	N/A	N/A	N/A	N/A
-------------------------	-----	-----	-----	-----

Approved Type(s): **Polyisocyanurate HP-W**

Minimum: 1.5" x 3' x 4'	N/A	N/A	N/A	N/A
-------------------------	-----	-----	-----	-----

Approved Type(s): **Structodeck**

Minimum: ½" x 4' x 4'	N/A	N/A	N/A	N/A
-----------------------	-----	-----	-----	-----

Approved Type(s): **UltraGard Gold, Isolite E**

Minimum: 1.3" x 4' x 4'	N/A	N/A	N/A	N/A
-------------------------	-----	-----	-----	-----

Approved Type(s): **Wood Fiber, Fiber Base**

Minimum: ½" x 4' x 8'	N/A	N/A	N/A	N/A
-----------------------	-----	-----	-----	-----

<u>Insulation Top Layer</u>	<u>Fastener Type</u>	<u>Fastening Detail No.</u>	<u>Fasteners Per Board</u>	<u>Fastener Density</u>
---------------------------------	--------------------------	---------------------------------	--------------------------------	-----------------------------

**Required over the insulations listed in Base Layer or optional over any of the insulations listed as Base or Top Layer:**

Approved Type(s): **HP Recovery** (use over all other insul. types), **Fiber Base** (use over polyisocyanurate, Gypsum or perlite)

Minimum: ½" x 4' x 4"	N/A	N/A	N/A	N/A
-----------------------	-----	-----	-----	-----

**Note: All layers of insulation and base sheet shall be simultaneously attached. See base sheet below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft. Single and multiple layers of insulation can be attached to the deck with FAST Adhesive.**



Frank Zuloaga, RRC  
Roofing Product Control Examiner

- Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.
- Barrier: None.
- Membrane: Sure-Seal Reinforced, FR Reinforced or Brite-Ply Reinforced secured through the preliminary attached insulation as specified below.
- Fastening #1: Sure-Seal HP fasteners with metal or poly plates 6" o.c. through the reinforced membrane in the lap or through a 6" strip 6'6" o.c., and the lap sealed, or the membrane fully adhered to the 6" strip with EP-95 Lap Cement.  
  
Sure-Seal HP fasteners poly plates 6" o.c. through the reinforced membrane in the lap or through a 6" strip 9'6" o.c., and the lap sealed, or the membrane fully adhered to the 6" strip with EP-95 Lap Cement. *Maximum Design Pressure -45 psf. (See General Limitation #9)*
- Surfacing: (Optional) A two part surfacing consisting of EM-8 Hypalon applied to a clean membrane surface, after a two week cure at the rate of 1 gal./150 ft.<sup>2</sup> and silica sand applied into the wet coating at a rate of 35 lbs./sq.

**Note: No substitution of the below system shall be made.**

- Deck: Minimum 22 gage ASTM A 446 Grade E Steel deck fastened to steel support at a maximum span of 6 feet o.c. Steel deck shall be fastened with minimum ITW Buildex Traxx/4 at a maximum spacing of 6 inches o.c. Side laps shall be fastened with ITW Buildex Traxx/1 at a maximum spacing of 30 inches o.c.
- Insulation: Any approved insulation listed in System Type D above preliminarily fastened in accordance with Roofing Application Standard 117.
- Membrane: Sure-Seal HP fasteners with metal or poly plates 6" o.c. through the reinforced membrane in the lap or through a 6" strip 6'6" o.c., and the lap sealed, or the membrane fully adhered to the 6" strip with EP-95 Lap Cement.
- Or,  
Sure-Seal HP fasteners poly plates 6" o.c. through the reinforced membrane in the lap or through a 6" strip 9'6" o.c., and the lap sealed, or the membrane fully adhered to the 6" strip with EP-95 Lap Cement. . *Maximum Design Pressure -52.5 psf. (See General Limitation #7)*
- Surfacing: (Optional) A two part surfacing consisting of EM-8 Hypalon applied to a clean membrane surface, after a two week cure at the rate of 1 gal./150 ft.<sup>2</sup> and silica sand applied into the wet coating at a rate of 35 lbs./sq.



Frank Zuloaga, RRC  
Roofing Product Control Examiner

**STEEL DECK SYSTEM LIMITATIONS:**

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant.

**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 Engineer, 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. **(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.)**



Frank Zuloaga, RRC  
Roofing Product Control Examiner

**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 19.

**END OF THIS ACCEPTANCE**



Frank Zuloaga, RRC  
Roofing Product Control Examiner