



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

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

Your application for Notice of Acceptance (NOA) of:

Sure-Weld Single-Ply Roofing Membrane-Recover

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.

Raul Rodriguez
Chief Product Control Division

ACCEPTANCE NO.: 00-0725.12
EXPIRES: 08/31/2003

**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

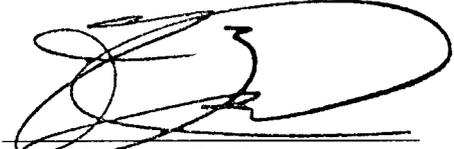
APPROVED: 08/31/2000

ROOFING SYSTEM APPROVAL

| | | |
|--------------------------------|---------------------------|--|
| <u>Category:</u> | Roofing | Approval Date: <u>August 31, 2000</u> |
| <u>Sub-Category:</u> | Single Ply | Expiration Date: <u>August 31, 2003</u> |
| <u>Material:</u> | TPO | |
| <u>Deck Type:</u> | Recover | |
| <u>Maximum Design Pressure</u> | -67.5 psf | |
| <u>Fire Classification:</u> | See General Limitation #1 | |

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

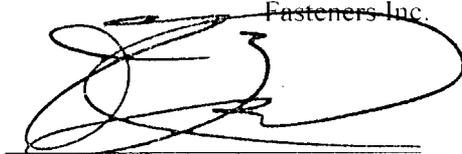
| <u>Product Name</u> | <u>Dimensions</u> | <u>Test Specifications</u> | <u>Product Description</u> |
|---|-------------------|----------------------------|---|
| Sure-Weld | various | PA 131 | Reinforced white or colored TPO membrane. |
| Sure-Weld GSD | various | PA 131 | Reinforced white or colored FR TPO membrane. |
| Carlisle Foamular Durapink Insulation | various | PA 110 | Extruded Polystyrene for white or black mechanically fastened roof systems. |
| Carlisle Foamular 1/2" Board | various | PA 110 | Extruded Polystyrene recovery board. |
| Carlisle Foamular 150, 250, 400, 404, 600 | various | PA 110 | Extruded Polystyrene insulation |
| Polyisocyanurate HP-H | various | PA 110 | Polyisocyanurate roof insulation. |
| Polyisocyanurate HP-W | various | PA 110 | Polyisocyanurate roof insulation. |
| Polyisocyanurate HP | various | PA 110 | Polyisocyanurate roof insulation. |
| Polyisocyanurate HP-N | various | PA 110 | Polyisocyanurate roof insulation. |
| Sure Seal EPS Insulation | various | PA 110 | Expanded Polystyrene. |
| Sure-Weld Bonding Adhesive | various | PA 110 | Solvent-based bonding adhesive. |
| 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 HP Concrete Spikes | 1/4" dia. | PA 114 | Driven fasteners used for insulation and membrane securement in concrete decks. |
| Piranha Seam Plates | 2-3/8" dia. | PA 114 | Metal plates used for membrane securement with Sure-Seal fasteners. |
| Sure-Seal Lightweight Insulation Plates | 3" dia. | PA 114 | Metal plates used for insulation securement with HP Lightweight Fasteners. |


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 Roofing Product Control Examiner

| <u>Product Name</u> | <u>Dimensions</u> | <u>Test Specifications</u> | <u>Product Description</u> |
|------------------------------------|-------------------|----------------------------|---|
| Sure-Seal HP Lightweight Fasteners | 0.687 dia. | PA 114 | Threaded plastic fasteners for insulation and membrane securement in lightweight deck materials. |
| 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 securement in steel, wood and concrete decks. |
| Sure-Seal HP-X Fasteners | #15 | 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. |
| 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. |



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| <u>Product Name</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> | <u>Manufacturer</u> |
|------------------------------|-------------------|---------------------------|--|-----------------------------------|
| 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 |
| Asphalt Primer | | ASTM D 41 | Asphalt Primer | generic |
| High Density Wood Fiberboard | various | PA 110 | Wood fiber insulation board | generic |
| Oriented Strand Board | various | PA 110 | Oriented strand 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 | NRG Barriers, Inc. |
| E'NRG'Y-2 | various | PA 110 | Polyisocyanurate foam insulation | NRG Barriers, Inc. |
| 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. |
| 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 #14 | | PA 114 | Insulation fastener | Olympic Manufacturing Group, Inc. |
| Olympic Fastener #12 | | PA 114 | Insulation fastener | Olympic Manufacturing Group, Inc. |



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| <u>Product Name</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> | <u>Manufacturer</u> |
|-----------------------------|-------------------|---------------------------|--|---------------------------|
| 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 |
| 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 |



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| <u>Product Name</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> | <u>Manufacturer</u> |
|---------------------|-------------------|---------------------------|--|-----------------------|
| 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-37050.01 | Wind Uplift Classification | 3/13/00 |
| Architectural Testing Inc. | ATI-37490.01 | Membrane Brittleness Testing | 7/7/00 |
| Factory Mutual Research Corporation | 303393 | Wind Uplift and Fire Classification | 3/30/99 |
| Factory Mutual Research Corporation | 303393 | Wind Uplift Classification | 3/26/99 |
| Factory Mutual Research Corporation | 3001522 | Wind Uplift and Fire Classification | 3/26/99 |
| Factory Mutual Research Corporation | 3001522 | Wind Uplift Classification | 11/3/98 |
| Factory Mutual Research Corporation | 3Z9A1.AM | Wind Uplift and Fire Classification | 10/15/97 |
| Factory Mutual Research Corporation | Approval Guide Excerpt | Wind Uplift and Fire Classification Listings | 5/00 |
| Factory Mutual Research Corporation | Letter | Wind Uplift and Fire Classifications | 5/2/00 |
| Celotex Corporation Testing Services | 520257 | Membrane Physical Property Testing | 4/19/00 |
| SGS U.S. Testing Company Incorporated | 131248-R2 | Membrane Ozone Resistance Testing | 1/6/00 |



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SYSTEMS:

Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 7I: Recover

Deck Description: Concrete/lightweight concrete/cementitious wood fiber/wood/steel

System Type A: All layers of insulation adhered with approved asphalt or FAST Adhesive; 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 Base or Top Layer.

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 as a Base or Top layer or over the Base Layer listed above:

Approved Type(s): **ACFoam II**
 Minimum: 1.5" x 3' x 4' N/A N/A N/A N/A

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

Approved Type(s): **PYROX, AP**
 Minimum: 1.2" x 4' x 4' N/A N/A N/A N/A

Approved Type(s): **ISO 95+ HF, Rhoflex HF**
 Minimum: 1.2" x 3' x 4' N/A N/A N/A N/A

Approved Type(s): **Multi-Max FA**
 Minimum: 1.2" 3' x 4' N/A N/A N/A N/A

Approved Type(s): **ACFoam Composite, Rhoflex Composite, Fesco Foam**
 Minimum: 1.5" 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


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| <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): Polyisocyanurate HP Minimum: 1.2" x 4' 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 Minimum: 1.3" x 4' x 4' | N/A | N/A | N/A | N/A |

Note: Existing roof shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full moppings of approved asphalt within the EVT range and at a rate of 20-40 lbs./s 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 used as a top layer shall be placed with the polyisocyanurate side facing down.

- Vapor Retarder: (Optional) Vapor retarder may be mopped to deck or base layer of insulation.
- Barrier: None.
- Membrane: Sure-Weld or Sure-Weld GSD, Reinforced, 45 or 60 mil membrane fully adhered to the insulation using Sure-Weld Bonding Adhesive applied to the substrate at a rate of 1 gal/60 ft.
- Maximum Design Pressure: -45 psf (See General Limitation #9)
- Maximum Fire Classification: See General Limitation #1.
- Maximum Slope: See General Limitation #1.



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Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 7I: Recover

Deck Description: Concrete/lightweight concrete/cementitious wood fiber/wood/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

| | | | | |
|---|-----|-----|-----|-----|
| Approved Type(s): Extruded Polystyrene Minimum: 1" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Expanded Polystyrene Minimum: 1" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Energy-Lok, ACFoam - II 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 |

Note: All layers shall be simultaneously fastened; see top 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. Please refer to Miami-Dade County 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> |
|-------------------------------------|----------------------|-----------------------------|----------------------------|-------------------------|
|-------------------------------------|----------------------|-----------------------------|----------------------------|-------------------------|

| | | | | |
|---|--|-----|----|------------------------|
| Approved Type(s): Fiber Base (for use over polyisocyanurate, gypsum or perlite) Minimum: ½" x 4' x 8' | | [4] | 11 | 1:2.9 ft. ² |
| Approved Type(s): ACFoam II Minimum: 1.5" x 3' x 4' | | [2] | 6 | 1:2 ft. ² |
| Minimum: 2" x 4' x 4' | | [3] | 8 | 1:2 ft. ² |
| Approved Type(s): E'NRG'Y-2, PSI-25 Minimum: 1.4" x 4' x 4' | | [3] | 8 | 1:2 ft. ² |
| Minimum: 2" x 4' x 4' | | [3] | 4 | 1:4 ft. ² |
| Approved Type(s): HP Recovery Minimum: ½" x 4' x 4' | | [3] | 8 | 1:2 ft. ² |
| Minimum: 1" x 2' x 4' | | [1] | 4 | 1:2 ft. ² |



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One or more layers of the following:

| <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): High Density Fiberboard Minimum: ¾" x 4' x 4' | | [3] | 6 | 1:2.67 ft. ² |
| Approved Type(s): WHITELINE, PYROX, AP Minimum: 1.4" x 4' x 4' | | [3] | 8 | 1:2 ft. ² |
| Approved Type(s): ISO 95+ HF, Rhoflex HF Minimum: 1.4" x 3' x 4' 1 | | [2] | 6 | 1:2 ft. ² |
| Approved Type(s): ACFoam Composite, Rhoflex Composite, Fesco Foam Minimum: 1.5" x 3' x 4' | | [2] | 6 | 1:2 ft. ² |
| Approved Type(s): Polyisocyanurate HP-W Minimum: 1.5" x 3' x 4' | | [2] | 6 | 1:2 ft. ² |
| Approved Type(s): Polyisocyanurate HP -W Minimum: 2" x 3' x 4' | | [2] | 4 | 1:4 ft. ² |
| Approved Type(s): Polyisocyanurate HP Minimum: 1.4" x 4' x 4' | | [3] | 8 | 1:2 ft. ² |
| Approved Type(s): Sturdi Top Minimum: ½" x 4' x 4' | | [3] | 8 | 1:8 ft. ² |
| Approved Type(s): Ultra/M-II Iso/glas Minimum: 1.2" x 3' x 4' | | [2] | 6 | 1:2 ft. ² |
| Approved Type(s): Wood Fiber Minimum: 1" x 2' x 4' | | [1] | 4 | 1:2 ft. ² |
| Approved Type(s): Fiber Base Minimum: ½" x 4' x 8' | | [4] | 11 | 1:2.9 ft. ² |

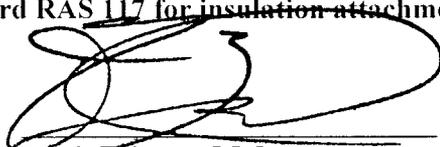
| <u>Insulation Top Layer</u> | <u>Fastener Type</u> | <u>Fastening Detail No.</u> | <u>Fasteners Per Board</u> | <u>Fastener Density</u> |
|---------------------------------|--------------------------|---------------------------------|--------------------------------|-----------------------------|
|---------------------------------|--------------------------|--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

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** (for use over all insul. types)

| | | | |
|-----------------------|-----|---|----------------------|
| Minimum: ½" x 4' x 4' | [3] | 8 | 1:2 ft. ² |
| Minimum: 1" x 2' x 4' | [1] | 4 | 1:2 ft. ² |

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 Miami-Dade County Roofing Application Standard RAS 117 for insulation attachment.


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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-Weld or Sure-Weld GSD, Reinforced, 45 or 60 mil membrane fully adhered to the insulation using Sure-Weld Bonding Adhesive applied to the substrate at a rate of 1 gal/60 ft.².

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

Maximum Fire Classification: See General Limitation #1.



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Membrane Type: Single Ply, Thermoplastic, TPO, Reinforced

Deck Type 7I: Recover

Deck Description: Concrete/lightweight concrete/cementitious wood fiber/wood/steel

System Type D: Membrane mechanically attached over preliminarily 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): **Expanded 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**
 Minimum: 1.5" x 3' x 4' N/A N/A N/A N/A

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

Approved Type(s): **WHITELINE, PYROX, AP**
 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**
 Minimum: 1.4" x 3' x 4' N/A N/A N/A N/A

Approved Type(s): **ISO 95+ HF, Rhoflex HF**
 Minimum: 1.2" x 3' x 4' N/A N/A N/A N/A

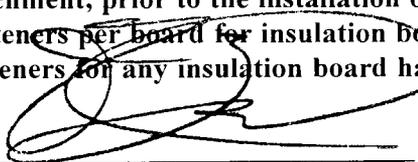

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| <u>Insulation Base or Top Layer</u> | <u>Fastener Type</u> | <u>Fastening Detail No.</u> | <u>Fasteners Per Board</u> | <u>Fastener Density</u> |
|---|--------------------------|---------------------------------|--------------------------------|-----------------------------|
| Approved Type(s): Multi-Max FA Minimum: 1.2" 3' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): ACFoam Composite, Rhoflex Composite, Fesco Foam Minimum: 1.5" 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): Polyisocyanurate HP Minimum: 1.2" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Polyisocyanurate HP-N Minimum: 1.4" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): Structodeck Minimum: 1/2" x 4' x 4' | N/A | N/A | N/A | N/A |
| Approved Type(s): 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): Ultra/M-II Iso/glas Minimum: 1.2" x 3' 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 Minimum: 1/2" x 4' x 8' | N/A | N/A | N/A | N/A |
| Approved Type(s): Fiber Base Minimum: 1/2" 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) Minimum: 1/2" x 4' x 4" | N/A | N/A | N/A | N/A |
| Approved Type(s): Fiber Base (use over polyisocyanurate, Gypsum or perlite) Minimum: 1/2" x 4' x 4" | N/A | N/A | N/A | N/A |

Note: All layers of insulation and base sheet shall be simultaneously attached. Refer to Miami-Dade County 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



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no dimension greater than 8 ft. Single and multiple layers of insulation can be attached to the deck with FAST Adhesive.

- Vapor Retarder: (Optional) Any UL or FMRC approved vapor retarder applied to the roof deck or over a base layer of insulation.
- Barrier: None.
- 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-Weld or Sure-Weld GSD, Reinforced, secured through the preliminarily attached insulation as specified below.
- Fastening #1: Sure-Seal HP-X Fasteners with Piranha Plates 6" o.c. through the Sure-Weld Membrane in the lap in rows spaced 7'-7" o.c. **Maximum Design Pressure -68 psf. (See General Limitation #7)**
- Fastening #2: Sure-Seal HP-X Fasteners with Piranha Plates 6" o.c. through the Sure-Weld Membrane in the lap in rows spaced 9'-7" o.c. **Maximum Design Pressure -60 psf. (See General Limitation #7)**
- Fastening #3: Sure-Seal HP-X Fasteners with Piranha Plates 9" o.c. through the Sure-Weld Membrane in the lap in rows spaced 9'-7" o.c. **Maximum Design Pressure -52.5 psf. (See General Limitation #7)**
- Fastening #4: Sure-Seal HP-X Fasteners with Piranha Plates 6" o.c. through the Sure-Weld GSD Membrane in the lap in rows spaced 9'-7" o.c. **Maximum Design Pressure -52.5 psf. (See General Limitation #7)**
- Fastening #5: Sure-Seal HP-X Fasteners with Piranha Plates 9" o.c. through the Sure-Weld GSD Membrane in the lap in rows spaced 9'-7" o.c. **Maximum Design Pressure -45 psf. (See General Limitation #7)**
- Fastening #6: Sure-Seal HP-X Fasteners with Piranha Plates 12" o.c. through the Sure-Weld Membrane in the lap in rows spaced 9'-7" o.c. **Maximum Design Pressure -45 psf. (See General Limitation #7)**
- Maximum Fire Classification: See General Limitation #1



RECOVER SYSTEM LIMITATIONS:

- 1 Existing roof surfaces used as a bonding substrate shall be tested for uplift resistance, in compliance with Miami-Dade County Protocol PA 124 to the calculated design pressures of the field, perimeter and corner areas, determined in compliance with Chapter 23 of the South Florida Building Code.
- 2 All System Limitations and General Limitations shall apply. See specific deck type Notice of Acceptance for deck type System Limitations.



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GENERAL LIMITATIONS

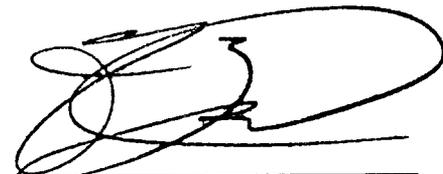
- 1 Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 2 Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers 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 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 or Architect may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Miami-Dade County 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 calculated in compliance with Miami-Dade County 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 Miami-Dade County Roofing Application Standard RAS 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, 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.)**



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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 17.

END OF THIS ACCEPTANCE

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