

NOTICE OF ACCEPTANCE (NOA)

Tamko Roofing Products, Inc.
P.O. Box 1404
Joplin, MO 64802

SCOPE:

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

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

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

DESCRIPTION: TAMKO Modified Bitumen Roof System Over Poured Gypsum Decks

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

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

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

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

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

This consists of pages 1 through 13.

The submitted documentation was reviewed by Frank Zuloaga, RRC



ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Modified Bitumen
Material: SBS/APP
Deck Type: Poured Gypsum
Maximum Design Pressure -75 psf
Fire Classification: See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|-----------------------|--|---------------------------|---|
| Awaplan 170 FR | Roll weight: 98 lbs.; 33' 11" x 39 ³ / ₈ " | ASTM D 6164 Type I | A 180 g/m ² polyester reinforced SBS modified bitumen membrane surfaced with granules and treated for additional fire resistance. Applied in hot asphalt or cold adhesive. |
| Awaplan 170™ | Roll weight: 98 lbs.; 33' 11" x 39 ³ / ₈ " | ASTM D 6164 Type I | A 180 g/m ² polyester reinforced SBS modified bitumen membrane surfaced with granules. Applied in hot asphalt or cold adhesive. |
| Awaplan Heat Welding™ | Roll weight: 96 lbs.; 25' 5" x 39 ³ / ₈ " | ASTM D 6164 Type II | A 250 g/m ² polyester reinforced SBS modified bitumen membrane surfaced with granules. Applied by torch and also used as a walkway material. |
| Awaplan Premium FR™ | Roll weight: 101 lbs.; 33' 11" x 39 ³ / ₈ " | ASTM D 6164 Type II | A 250 g/m ² polyester reinforced modified bitumen membrane surfaced with granules. Applied by hot asphalt and also used as a walkway material. |
| Awaplan Premium™ | Roll weight: 101 lbs.; 33' 11" x 39 ³ / ₈ " | ASTM D 6164 Type II | A 250 g/m ² polyester reinforced SBS modified bitumen membrane surfaced with granules. Applied in hot asphalt or cold adhesive, and also used as a walkway material. |
| Awaflex | Roll weight: 76 lbs; 33' x 39-3/8" | ASTM D 5147 | SBS modified cap sheet constructed with a 155gm/m ² non- woven polyester mat saturated with asphalt, coated on both sides with SBS rubber modified asphalt and surfaced with ceramic granules for UV protection. |



| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|----------------------|---|---------------------------|---|
| Awaflex FR | Roll weight: 76 lbs; 33' x 39-3/8" | ASTM D 5147 | SBS FR modified cap sheet constructed with a 155gm/m ² non- woven polyester mat saturated with asphalt, coated on both sides with SBS rubber modified asphalt, FR treated, and surfaced with ceramic granules for UV protection. |
| Awaplan Versa-Smooth | Roll weight: 100 lbs. 33' 11" x 39 ³ / ₈ " | ASTM D 6164 Type I | A 180 g/m ² polyester reinforced SBS modified bitumen membrane. Applied in hot asphalt, by torch, or mechanically fastened, as a base ply in 2 ply modified systems. |
| Awaplan Versa-Flex | Roll weight: 76 lbs; 33' 11" x 39-3/8" | ASTM D 6164 Type I | A 190 g/m ² nonwoven polyester reinforced SBS modified bitumen membrane. Applied in hot asphalt, as a base ply in 2 ply modified systems. |
| Base-N-Ply® | Roll weight: 72 lbs.; 97' 6" x 39-3/8" | ASTM D 4601 | Type II asphalt impregnated and coated glass fiber base sheet for use in conventional and modified bitumen built-up roofing. |
| Glass-Base™ | Roll weight: 72 lbs.; 97' 6" x 39-3/8" | ASTM D 4601 | Type II asphalt impregnated and coated glass fiber base sheet for use in conventional and modified bitumen built-up roofing. |
| Tam-Cap™ | Roll weight: 83 lbs.; 32' 11 x 39-3/8" | ASTM D 3909 | Asphalt impregnated and coated felt surfaced with mineral granules used as the top ply in conventional built-up roof membranes. |
| Tam-Glass Premium™ | Roll weight: 53 lbs.; 161' 9" x 39-3/8" | ASTM D 2178 Type VI | Type VI asphalt impregnated glass felt for use in conventional and modified bitumen built-up roofing. |
| Tam-Ply IV™ | Roll weight: 44 lbs.; 161' 9" x 39-3/8" | ASTM D 2178 Type IV | Type IV asphalt impregnated glass felt for use in conventional and modified bitumen built-up roofing. |
| Type 43 Base Sheet | Roll weight: 85 lbs.; 72' x 36" | ASTM D 2626 | An organic felt reinforced asphalt base sheet. Applied in hot asphalt or mechanically fastened. |
| Vapor-Chan™ | Roll weight: 86 lbs.; 32' 11" x 39-3/8" | ASTM D 4897 Type II | Heavy duty fiber glass base sheet impregnated and coated on both sides with asphalt with or without a fine mineral stabilizer. Surfaced on the bottom side with coarse mineral granules embedded in hot asphaltic coating. |
| Versa-Base FR™ | Roll weight: 60 lbs.; 48' 2" x 39-3/8" | ASTM D 5147 | Asphalt impregnated and coated glass fiber base sheet for use in conventional and modified bitumen built-up roofing. |



| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|--|---|---------------------------|--|
| Versa-Base™ | Roll weight: 94 lbs.; 48' 2" x 39-3/8" | ASTM D 6163 Type I | Asphalt impregnated and coated glass fiber base sheet for use in conventional and modified bitumen built-up roofing. |
| Versa-Cap FR™ | Roll weight: 87 lbs.; 33" x 39-3/8" | ASTM D 5147 | A fiberglass reinforced, mineral surfaced, SBS modified bitumen top membrane. |
| Tam-Pro Fibered Emulsion | 5 gallon | ASTM D 1227, type II | Protective coating. |
| Tam-Pro Primer | 5 gallon | ASTM D 41 | Asphalt based primer |
| Tam-Pro Fire Rated Fibered Aluminum Roof coating | 5 gallons | ASTM D 2824, type III | Flame Retardant Protective Coating |

APPROVED INSULATIONS:

TABLE 2

| Product Name | Product Description | Manufacturer (With Current NOA) |
|--------------------------------|----------------------------------|--|
| ACFoam II, ACFoam Composite | Polyisocyanurate foam insulation | Atlas Energy Products |
| ConPearl | Expanded perlite mineral fiber | Conglas |
| Esgard Fiberboard | Wood fiber board | EMCO Ltd. |
| GAF Permalite | Expanded mineral fiber | GAF Mat'l. Corp. |
| GAF Fiberboard | Wood fiber board | GAF Mat'l. Corp. |
| High Density Wood Fiberboard | Wood fiber insulation board | Generic |
| Perlite Insulation | Perlite insulation board | Generic |
| Dens-Deck | Gypsum insulation board | Georgia-Pacific |
| Armor Board Regular Fiberboard | Wood fiber board | Honeywell Int'l. Inc. |
| Hubert Fiberboard | Wood fiber board | Huebert Fiberboard, Inc. |
| UltraGard, ENRGY-2, PSI-25 | Polyisocyanurate foam insulation | Johns Manville Corp. |
| Fesco Board, Retro-Fit Board | Expanded mineral fiber | Johns Manville Corp. |
| Kop-R Wood Fiber | Polyisocyanurate foam insulation | Koppers Industries, Inc. |
| Structodek, Structodek FS | Wood fiber board | Masonitec |

APPROVED FASTENERS:

TABLE 3

| Fastener Number | Product Name | Product Description | Dimensions (With Current NOA) | Manufacturer |
|------------------------|---------------------|----------------------------|--|---------------------|
|------------------------|---------------------|----------------------------|--|---------------------|



APPROVED FASTENERS:

TABLE 3

| Fastener Number | Product Name | Product Description | Dimensions | Manufacturer (With Current NOA) |
|------------------------|--------------------------|---|-------------------|--|
| 1. | Nail-Tite Type R | Base sheet fastener | | ES Products, Inc. |
| 2. | FM-60 Fasteners | Base sheet fastener with intergrated Plate. | 1.7" dia. plate | ES Products, Inc. |
| 3. | FM-90 Fasteners | Base sheet fastener with intergrated Plate. | 2.7" dia. plate | ES Products, Inc. |
| 4. | Twin Loc-Nail | Base sheet fastener with intergrated Plate. | 2.7" dia. plate | ES Products, Inc. |
| 5. | FM-30 Discs | Round galvalume AZ55 steel plate | 2.7" round | ES Products, Inc. |
| 6. | Strap Toggle Fastener | Insulation fastener for wood, steel and Gypsum decks. | | Olympic Mfg Group |
| 7. | Iron-Lok Toggle Fastener | Insulation fastener for wood, steel and Gypsum decks. | | Olympic Mfg Group |
| 8. | Olympic Standard | 3" round galvalume AZ55 steel plate | 3" round | Olympic Mfg Group |
| 9. | Olympic Plastic | Polypropylene plate | 3" round | Olympic Mfg Group |
| 10. | Olympic G-2 | 3.5" round galvalume AZ55 steel plate | 3.5" round | Olympic Mfg Group |

EVIDENCE SUBMITTED:

| <u>Test Agency/Identifier</u> | <u>Name</u> | <u>Report</u> | <u>Date</u> |
|--|---|----------------------|--------------------|
| Factory Mutual Research Corp. | Comparitive Rupture Testing | J.I. 4D0A7.AM | 10.21.98 |
| | Class 1 Fire | J.I. 0Z4A3.AM | 08.27.97 |
| | Class 1 Fire; I-90 Windstorm Classification | J.I.1D4A7.AM | 10.20.97 |
| | Class 1 Fire; I-90 Windstorm Classification | J.I. 3B5A9.AM | 08.27.98 |
| Dynatech Engineering Corp. | Wind Uplift Testing | 4440.05.95-2 | 05.01.95 |
| | Wind Uplift Testing | 4440.05.95-1 | 05.01.95 |
| Exterior Research & Design, LLC IRT-Arcon, Inc. | Wind Uplift Testing | 4444.06.98-1 | 06.15.98 |
| | TAS 114 | 02-011 | 02.11.02 |



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 Expiration Date: 08/23/06
 Approval Date: 03/13/03
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APPROVED ASSEMBLIES:

- Deck Type 6I:** Poured Gypsum, Insulated, New Construction
- Deck Description:** Poured Gypsum Concrete
- System Type A:** Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ACFoam II | | |
| Minimum 1.2" thick | N/A | N/A |
| UltraGard Gold | | |
| Minimum 1.3" thick | N/A | N/A |
| ENRGY-2, PSI-25 | | |
| Minimum 1.4" thick | N/A | N/A |
| Base or Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| ConPerl, GAFTEMP Permalite, Fesco Board | | |
| Minimum 3/4" thick | N/A | N/A |
| High Density Wood Fiberboard, Structodek FS | | |
| Minimum 1/2" thick | N/A | N/A |

Note: All insulation shall be adhered to the anchor sheet in full mopping of approved hot asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation 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: One ply of Tamko Glass-Base or Vapor-Chan fastened to the deck as described below:

- Fastening:**
 - (Option #1)** Attach anchor sheet using ES Products Nail-Tite Type R Fasteners, FM-60 with FM-30 Discs, or FM-90 Fasteners spaced 9" o.c. in a 2" lap and 18" o.c. in two staggered rows in the center of the sheet.
 - (Option #2)** Attach anchor sheet using ES Products Nail-Tite Type R Fasteners, FM-60 with FM-30 Discs, or FM-90 Fasteners spaced 7 1/2" o.c. in a 4" lap and 7 1/2" o.c. in one row in the center of the sheet.

Base Sheet: One ply of Tam-Ply IV, Tam-Glass Premium, Glass-Base, Base-N-Ply, Versa-Base, Versa-Smooth, Awaplan VersaFlex, or Vapor-Chan adhered to the substrate with a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.



- Ply Sheet:** (Optional) One or more plies of Tam-Glass Premium, Tam-Ply IV, Base-N-Ply, Awaplan VersaFlex, or Versa-Base adhered with a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.
- Membrane:** Awaplan Premium, Awaplan Premium FR, Awaplan 170, Awaflex, Awaflex FR, Awaplan 170 FR, Awaplan Versa-Smooth, Awaplan VersaFlex, or Versa-Cap FR adhered with a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or Awaplan Heat Welding or Versa-Smooth adhered by torch.
- Surfacing:** Optional for mineral surfaced Membranes. Required for smooth surfaced membranes:
1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping – asphalt at an application rate of 60 lb./sq..
 2. Tam-Pro FR Aluminum Coating, Henry 520, or Karnak 97AF applied at 1½ gal./sq., or Grundy Fibered Asphalt Emulsion, or Tam-Pro Fibered Emulsion at 3 gal./sq.
- Maximum Design Pressure:** -52.5 psf (See General Limitations #9).



Deck Type 6I: Poured Gypsum, Insulated, New Construction

Deck Description: Poured Gypsum Concrete

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

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ACFoam II | | |
| Minimum 1.2" thick | 6 or 7 | 1:2 ft ² |
| Minimum 1.4" thick | 6 or 7 | 1:4 ft ² |
| White Line | | |
| Minimum 1.2" thick | 6 or 7 | 1:2 ft ² |
| UltraGard Gold | | |
| Minimum 1.3" thick | 6 or 7 | 1:2 ft ² |
| ENRGY-2, PSI-25 | | |
| Minimum 1.4" thick | 6 or 7 | 1:2 ft ² |
| ACFoam Composite | | |
| Minimum 1.5" thick | 6 or 7 | 1:2 ft ² |
| ConPerl, GAFTEMP Permalite, Fesco Board, Structodek, Armor Board Regular, Esgard, Wood Fiberboard, GAFTEMP Fiberboard, Huebert Fiberboard, Kop-R Wood Fiber | | |
| Minimum 1" thick | 3 or 5 | 1:2 ft ² |

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

| (Optional) Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ConPerl, GAFTEMP Permalite, Fesco Board | | |
| Minimum ¾" thick | N/A | N/A |
| ACFoam Composite | | |
| Minimum 1.5" thick | N/A | N/A |

Note: Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Base Sheet: One ply of Tam-Ply IV, Tam-Glass Premium, Glass-Base, Base-N-Ply, Versa-Base, Versa-Smooth, Awaplan VersaFlex, or Vapor-Chan adhered to the substrate with a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.



- Ply Sheet: (Optional) One or more plies of Tam-Glass Premium, Tam-Ply IV, Base-N-Ply, Awaplan VersaFlex, Versa-Smooth, or Versa-Base adhered with a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. Versa-Smooth may be adhered by torch.
- Membrane: Awaplan Premium, Awaplan Premium FR, Awaplan 170, Awaflex, Awaflex FR, Awaplan 170 FR, Awaplan Versa-Smooth, Awaplan VersaFlex, or Versa-Cap FR adhered with a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or Awaplan Heat Welding or Versa-Smooth adhered by torch.
- Surfacing: Optional for mineral surfaced Membranes. Required for smooth surfaced membranes:
1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq..
2. Tam-Pro FR Aluminum Coating, Henry 520, or Karnak 97AF applied at 1½ gal./sq., or Grundy Fibered Asphalt Emulsion, or Tam-Pro Fibered Emulsion at 3 gal./sq.
- Maximum Design Pressure: -45 psf (See General Limitations #9).



Deck Type 6I: Poured Gypsum, Insulated, New Construction

Deck Description: Poured Gypsum Concrete

System Type C: All layers of insulation simultaneously mechanically fastened.

All General and System Limitations apply.

One or more layers of any of the following insulations:

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ACFoam II, White Line Minimum 1.2" thick | N/A | N/A |
| UltraGard Gold Minimum 1.3" thick | N/A | N/A |
| ENRGY-2, PSI-25 Minimum 1.4" thick | N/A | N/A |

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

| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ConPerl, GAFTEMP Permalite, Fesco Board, Structodek, Armor Board Regular, Esgard, Wood Fiberboard, GAFTEMP Fiberboard, Huebert Fiberboard, Kop-R Wood Fiber Minimum 1" thick | 6 or 7 | 1:2 ft ² |

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

Base Sheet: One ply of Tam-Ply IV, Tam-Glass Premium, Glass-Base, Base-N-Ply, Versa-Base, Versa-Smooth, Awaplan VersaFlex, or Vapor-Chan adhered to the substrate with a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Ply Sheet: (Optional) One or more plies of Tam-Glass Premium, Tam-Ply IV, Base-N-Ply, Awaplan VersaFlex, Versa-Smooth, or Versa-Base adhered with a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq. Versa-Smooth may be adhered by torch.

Membrane: Awaplan Premium, Awaplan Premium FR, Awaplan 170, Awaflex, Awaflex FR, Awaplan 170 FR, Awaplan Versa-Smooth, Awaplan VersaFlex, or Versa-Cap FR adhered with a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or Awaplan Heat Welding or Versa-Smooth adhered by torch.



Surfacing:

Optional for mineral surfaced Membranes. Required for smooth surfaced membranes:

1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq..
2. Tam-Pro FR Aluminum Coating, Henry 520, or Karnak 97AF applied at 1½ gal./sq., or Grundy Fibered Asphalt Emulsion, or Tam-Pro Fibered Emulsion at 3 gal./sq.

Maximum Design
Pressure:

-45 psf (See General Limitations #9).



Deck Type 6: Poured Gypsum Concrete, Non-insulated, New Construction, Tear-off

Deck Description: Poured gypsum concrete.

System Type E(1): Base sheet mechanically fastened.

All General and System Limitations apply.

Base Sheet: One ply of Tamko Glass-Base or Vapor-Chan fastened to the deck as described below:

Fastening: *(Option #1)* Attach base sheet using ES Products Nail-Tite Type R Fasteners, FM-60 with FM-30 Discs, or FM-90 Fasteners spaced 9" o.c. in a 2" lap and 18" o.c. in two staggered rows in the center of the sheet.

(Maximum Design Pressure -52.5 psf; See General Limitation #9)

(Option #2) Attach base sheet using ES Products Nail-Tite Type R Fasteners, FM-60 with FM-30 Discs, or FM-90 Fasteners spaced 7½" o.c. in a 4" lap and 7½" o.c. in one row in the center of the sheet.

(Maximum Design Pressure -52.5 psf; See General Limitation #9)

(Option #3) Attach base sheet with ES Products 1.8" Twin Loc-Nail fasteners spaced 9" o.c. at the 3" side lap and two rows staggered 12" o.c. in the center of the sheet.

(Maximum Design Pressure -75 psf; See General Limitation #7)

Ply Sheet: (Optional) One or more plies of Tam-Glass Premium, Tam-Ply IV, Base-N-Ply, Awaplan VersaFlex, Versa-Smooth, or Versa-Base adhered with a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.. Versa-Smooth may be adhered by torch.

Membrane: Awaplan Premium, Awaplan Premium FR, Awaplan 170, Awaflex, Awaflex FR,, Awaplan 170 FR, Awaplan Versa-Smooth, Awaplan VersaFlex, or Versa-Cap FR adhered with a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.; or Awaplan Heat Welding or Versa-Smooth adhered by torch.

Surfacing: Optional for mineral surfaced Membranes. Required for smooth surfaced membranes:

1. 400 lb./sq. gravel or 300 lb./sq. slag in a flood coat of approved mopping asphalt at an application rate of 60 lb./sq..
2. Tam-Pro FR Aluminum Coating, Henry 520, or Karnak 97AF applied at 1½ gal./sq., or Grundy Fibered Asphalt Emulsion, or Tam-Pro Fibered Emulsion at 3 gal./sq.

Maximum Design Pressure: See Fastening Options Above



GENERAL LIMITATIONS:

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

END OF THIS ACCEPTANCE



NOA No.: 02-1023.06
Expiration Date: 08/23/06
Approval Date: 03/13/03
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