



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

Tarco Specialty Products, Inc.
One Information Way, Suite 225
Little Rock, AR 72202

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section 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 Section (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. RER reserves the right to revoke this acceptance if it is determined by Miami-Dade County Product Control Section 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 Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Tarco Roofing Membranes and Underlayments

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

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

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

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

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

This NOA revises NOA No. 25-0827.01 and consists of pages 1 through 34.

The submitted documentation was reviewed by Rafael Macedo.

07/16/26



NOA No.: 26-0507.01
Expiration Date: 01/25/28
Approval Date: 07/16/26
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ROOFING COMPONENT APPROVAL

Category: Roofing
Sub-Category: Underlayment
Material: Asphalt, SBS, Polyester

SCOPE:

This acceptance is for **Tarco Roofing Membrane and Underlayments**, for use with approved prepared roof assemblies where the applicable TAS/ASTM specific underlayment is specified and installed with prescribed approved adhesives, fasteners and fastener densities, as described in this Notice of Acceptance; designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone of the Florida Building Code.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
30# ASTM Specification Felt <i>Manufacturing Location #1</i>	3' x 72" rolls	ASTM D226, Type II	Asphalt saturated organic felt underlayment.
LeakBarrier® EasyLay® HS Base <i>Manufacturing Location #2</i>	3' x 72" rolls	ASTM D226, Type II	Modified bituminous, composite polymeric fabric/scrim reinforced underlayment.
EasyLay® UDL HT <i>Manufacturing Location #2</i>	3' x 66'8" rolls	ASTM D1970	Self-adhesive, SBS Modified Bitumen Underlayment
Fiberglass Mineral Surfaced Roll Roofing <i>Manufacturing Location #1</i>	3' x 36' rolls	ASTM D3909	Mineral surfaced glass fiber reinforced, asphalt coated roll roofing for hot mop or cold process application.
ASTM Organic Tile Underlayment <i>Manufacturing Location #1</i>	3' x 36' rolls	ASTM D6380 Type II	Asphalt saturated granular surfaced organic felt underlayment for hot mop application.
PS200^{HT} <i>Manufacturing Location #1</i>	3' x 66'8" rolls	TAS 103	Fabric surfaced, fiberglass reinforced, SBS modified bituminous sheet material with a self-adhesive bottom layer, for use as an underlayment in sloped roof assemblies. Designed as a shingle, tile and metal roofing underlayment.



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TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: (CONTINUED)

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
MS300 <i>Manufacturing</i> <i>Location #1 & #2</i>	3' x 66'8" rolls 3' x 33'4" rolls	ASTM D1970	Fine granular surfaced, fiberglass reinforced, bituminous sheet material with a self-adhesive bottom layer, for use as an underlayment in sloped roof assemblies. Designed as an ice and water shield, and a shingle roofing underlayment.
NR600 Ultra <i>Manufacturing</i> <i>Location #1</i>	3' x 72' rolls	TAS 103	Fabric surfaced, non-reinforced, SBS modified bituminous sheet material with a self-adhesive bottom layer, for use as an underlayment in sloped roof assemblies. Designed as a shingle, tile and metal roofing underlayment.
TopShield TS600 Ice & Water <i>Manufacturing</i> <i>Location #1</i>	3' x 72' rolls	TAS 103	Fabric surfaced, non-reinforced, SBS modified bituminous sheet material with a self-adhesive bottom layer, for use as an underlayment in sloped roof assemblies. Designed as a shingle, tile and metal roofing underlayment.
PS200^{MU} <i>Manufacturing</i> <i>Location #1</i>	3' x 66'8" rolls	ASTM D1970	Self-adhesive, glass fiber reinforced, asphalt underlayment designed for use under metal roofing. Polyolefinic film on upper side.
FS500^{HT} <i>Manufacturing</i> <i>Location #2</i>	3' x 66'8" rolls	ASTM D1970 TAS 110	Self-adhesive, HDPE surfaced, non-reinforced, rubberized asphalt underlayment.

MANUFACTURING LOCATION:

1. Greencastle, PA
2. Belton, TX

BUILDING PERMIT REQUIREMENTS:

Application for building permit shall be accompanied by copies of the following:

1. This Notice of Acceptance.
2. Any other documents required by the Building Official or applicable building code in order to properly evaluate the installation of these materials.

LABELING:



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All membranes or packaging shall bear the imprint or identifiable marking of the manufacturer's name or logo, city, state and the following statement: "Miami-Dade County Product Control Approved" or the Miami-Dade County Product Control Seal as shown below.



EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Test Name/Report</u>	<u>Date</u>
NEMO ETC, LLC.	TAR-SC16545.11.17	ASTM D4601	11/01/17
	4-TAR-18-002.04.18	ASTM D6164	04/16/18
	TAR-SC8020.06.18	TAS 103/ASTM D4798	06/05/18
	4j-TAR-20-SSUDL-02.A	ASTM D1970	03/29/21
	4j-TAR-21-SSUDL-01.A	ASTM D3909	10/01/21
	4j-TAR-21-SSUDL-01.B	ASTM D226	12/21/21
	4j-TAR-21-SSUDL-01.C	TAS 103	11/05/21
	4j-TAR-21-SSUDL-03.A	TAS 103	06/02/22
	4j-TAR-22-SSUDL-01.A	ASTM D6380	07/25/22
	4a-TAR-22-LSWUS-01.A	FM 4474/TAS 114 (D)	12/12/22
	4j-TAR-21-SSUDL-04.A	ASTM D1970	05/24/23
	4j-TAR-23-SSUDL-03.A	TAS 103	03/13/23
	4a-TAR-23-LSWUS-01.A	UL 1897	05/10/23
	4j-TAR-23-SSUDL-01.A	TAS 103/ASTM D1623	06/15/23
	4j-TAR-23-SSUDL-04.A	TAS 103/AC152	10/06/23
	4p-DAP-23-SSLAP-01.B	TAS 103/AC152	11/17/23
	4j-TAR-23-SSUDL-05.A	TAS103/ASTM D4798	11/16/23
	4j-TAR-23-SSUDL-07.A	ASTM D1970/TAS 110	11/28/23
	4a-TAR-23-LSWUS-03.A	UL 1897	12/20/23
	4a-TAR-23-LSWUS-02.A	UL 1897	01/03/24
	4a-TAR-LSWUS-001.A	UL 1897	05/14/24
	4a-TAR-LSWUS-002.A	UL 1897	05/29/24
	4a-TAR-LSWUS-004.A	UL 1897	06/18/24
	4a-TAR-LSWUS-005.A	UL 1897	07/29/24
	4a-TAR-LSWUS-006.A	UL 1897	07/29/24
	4a-TAR-LSWUS-008.A	UL 1897	10/15/24
	4j-TAR-SSUDL-001.A	ASTM D226	03/31/25
	4j-TAR-SSUDL-001.B	TAS 117-B / ASTM D1876	03/31/25
	4a-TAR-LSWUS-010.A	UL 1897	04/09/25
	4a-TAR-LSWUS-011.A	UL 1897	05/22/25
	4a-TAR-LSWUS-012.A	UL 1897	07/28/25
	4j-TAR-SSUDL-002.A	ASTM D1970	06/11/26



APPROVED ASSEMBLIES – 30# ASTM SPECIFICATION FELT:

Deck Type: See “Installation Requirements” and “General Limitations” below.

Deck Description: See “Installation Requirements” and “General Limitations” below.

System E(1): See “Installation Requirements” and General Limitations below.

INSTALLATION REQUIREMENTS – 30# ASTM SPECIFICATION FELT:

1. 30# ASTM Specification Felt shall be installed in strict compliance with applicable Building Codes.
2. Observe and comply with roofing practices and guidelines as outlined by the National Roofing Contractors Associations (NRCA) when installing 30# Felt.
3. During installation of 30# Felt, comply with Occupational Safety and Health Administration (OSHA) safety standards; use common sense measures and adequate safety precautions to prevent accidents.
4. 30# ASTM Specification Felt shall be installed with a minimum 4” end lap in a shingle layer fashion and fastened as required by applicable system assemblies NOA or FBC 1518.2.

GENERAL LIMITATIONS – 30# ASTM SPECIFICATION FELT:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. This acceptance is for prepared roofing applications. Minimum deck requirements shall be in compliance with applicable building code.
3. 30# ASTM Specification Felt may be used with any approved roof covering Notice of Acceptance listing ASTM D226 Type II felt as a component part of an assembly in the Notice of Acceptance.
4. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

APPROVED ASSEMBLIES – FIBERGLASS MINERAL SURFACED ROLL ROOFING:

Deck Type: See “Installation Requirements” and “General Limitations” below.

Deck Description: See “Installation Requirements” and “General Limitations” below.

System E(2): See “Installation Requirements” and “General Limitations” below.

INSTALLATION REQUIREMENTS – FIBERGLASS MINERAL SURFACED ROLL ROOFING:

1. Fiberglass Mineral Surfaced Roll Roofing may be used with any approved roof covering Notice of Acceptance listing Fiberglass Mineral Surfaced Roll Roofing as a component part of an assembly in the Notice of Acceptance or wherever a ASTM D3909 roof membrane is specified and installed with prescribed approved asphalt, adhesives, fasteners and fastener densities per applicable FBC requirements.
2. Observe and comply with roofing practices and guidelines as outlined by the National Roofing Contractors Associations (NRCA) when installing Fiberglass Mineral Surfaced Roll Roofing.
3. During installation of Fiberglass Mineral Surfaced Roll Roofing, comply with Occupational Safety and Health Administration (OSHA) safety standards; use common sense measures and adequate safety precautions to prevent accidents.

GENERAL LIMITATIONS – FIBERGLASS MINERAL SURFACED ROLL ROOFING:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. This acceptance is for prepared roofing applications. Minimum deck requirements shall be in compliance with applicable building codes.
3. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.



APPROVED ASSEMBLIES – ASTM ORGANIC TILE UNDERLAYMENT:

Deck Type:	See “Installation Requirements” and “General Limitations” below.
Deck Description:	See “Installation Requirements” and “General Limitations” below.
System E(3):	See “Installation Requirements” and “General Limitations” below.

INSTALLATION REQUIREMENTS – ASTM ORGANIC TILE UNDERLAYMENT:

1. ASTM Organic Tile Underlayment may be used with any approved roof covering Notice of Acceptance listing ASTM Organic Tile Underlayment as a component part of an assembly in the Notice of Acceptance or wherever a ASTM D6380 roof membrane is specified and installed with prescribed approved asphalt, adhesives, fasteners and fastener densities per applicable FBC requirements.
2. Observe and comply with roofing practices and guidelines as outlined by the National Roofing Contractors Associations (NRCA) when installing ASTM Organic Tile Underlayment.
3. During installation of ASTM Organic Tile Underlayment, comply with Occupational Safety and Health Administration (OSHA) safety standards; use common sense measures and adequate safety precautions to prevent accidents.

GENERAL LIMITATIONS – ASTM ORGANIC TILE UNDERLAYMENT:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. This acceptance is for prepared roofing applications. Minimum deck requirements shall be in compliance with applicable building codes.
3. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

APPROVED ASSEMBLIES – TARCO SELF-ADHERED UNDERLAYMENTS

Deck Type 1:	Wood, Non-Insulated
Deck Description:	Minimum 19/32" plywood, wood plank
System E(1):	Anchor sheet mechanically fastened to deck; membrane adhered.
Anchor/Base Sheet:	One or more plies of ASTM D226 Type II, ASTM D2626, with a minimum 4" wide side lap and a minimum 8" wide end lap, mechanically fastened to deck.
Fastening:	Approved nails and tin caps 6" o.c. within lap and two equally spaced staggered rows 12" o.c. in the field (for Anchor/Base sheet only).
Membrane:	All Tarco self-adhered membranes applied to an approved Anchor/Base Sheet. (See #15 in "Installation Requirements" for back nailing)
Surfacing:	See "Installation Requirements" for acceptable Roof Assemblies. This assembly shall not be used with any Tile Roof Coverings.
Deck Type 1:	Wood, Non-Insulated
Deck Description:	15/32" APA rated, 32/16 span rating, CDX, 4-ply plywood or wood plank secured with #8 wood screws spaced 6" o.c. at supports maximum 24" o.c. spacing and blocking with a maximum 48" o.c. spacing.
System E(2):	Anchor sheet mechanically fastened to deck; membrane adhered.
Anchor/Base Sheet:	Tarco 30# ASTM Specification Felt mechanically attached with 12 ga. Annular ring shank nails with 3/8" diameter heads through 32 ga., 1-5/8" diameter tin caps; 6-inch o.c. at the 4-inch laps and 6-inch o.c. at four (4) equally spaced center rows.
Membrane:	NR600 Ultra or TopShield TS600 Ice & Water , self-adhered with minimum 2" horizontal laps and minimum 6" vertical laps. Place the first course of membrane parallel to the eave, rolling the membrane to obtain maximum contact. Remove the release liner as the membrane is applied. When used in Tile roof systems the membrane shall be back nailed to deck with approved annular ring shank nails and caps at a maximum 12" o.c. at the side laps and 6" o.c. at the end laps. No nails or tin caps shall be exposed.
Surfacing:	Approved for asphalt shingle, mechanically fastened roof tile, foam-adhered roof tile, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA
Note:	For tile roof assemblies, refer to RAS 118, 119 or 120 and the tile manufacturer's NOA. • For foam-adhered tile roof assemblies using NR600 Ultra or TopShield TS600 Ice & Water, approved for use with ICP's APOC® Polyset® AH-160, APOC® Polyset® RTA-1, DuPont's TILE BOND™ Roof Tile Adhesive, DAP Storm Bond Roof Tile Adhesive (HFO), and DAP Storm Bond 2 Roof Tile Adhesive (HFO).
Underlayment Uplift Design Pressure:	-45 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**

Deck Type 1: Wood, Non-Insulated

Deck Description: 15/32" APA rated, 32/16 span rating, CDX, 4-ply plywood or wood plank secured with 8d ring shank nails spaced 6" o.c. at supports maximum 24" o.c. spacing and blocking with a maximum 48" o.c. spacing.

System E(3): Anchor sheet mechanically fastened to deck; membrane adhered.

Anchor/Base Sheet: **Tarco #30 ASTM Specification Felt** mechanically attached in a double layer fashion (overlapping the preceding layer top half plus 2") with 12 ga. x 1.5 inch annular ring shank nails with 32 ga., 1-5/8 inch diameter tin caps, 6x8 inch grid; start 6 inch o.c. with centerline 1 inch from the start edge, followed by rows spaced 8 inch o.c. with fasteners spaced 6 inch o.c. within each row.

Membrane: **ASTM Organic Tile Underlayment** adhered with ASTM D312, Type IV hot asphalt and back-nailed using 12 ga. ring shank nails and 32 ga., 1-5/8 inch diameter tin caps, 12 inch o.c.

Surfacing: Not included in this analysis. See "Installation Requirements" for acceptable Roof Assemblies.

Underlayment Uplift Design Pressure: -82.5 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**

Deck Type 1: Wood, Non-Insulated

Deck Description: 15/32" APA rated, 32/16 span rating, CDX, 4-ply plywood or wood plank secured with 8d ring shank nails spaced 6" o.c. at supports maximum 24" o.c. spacing and blocking with a maximum 48" o.c. spacing.

System E(4): Anchor sheet mechanically fastened to deck; membrane adhered.

Anchor/Base Sheet: **Tarco #30 ASTM Specification Felt** mechanically attached in a double layer fashion (overlapping the preceding layer top half plus 2") with 12 ga. x 1.5 inch annular ring shank nails with 32 ga., 1-5/8 inch diameter tin caps, 4x8 inch grid; start 4 inch o.c. with centerline 1 inch from the start edge, followed by rows spaced 8 inch o.c. with fasteners spaced 4 inch o.c. within each row.

Membrane: **ASTM Organic Tile Underlayment** adhered with ASTM D312, Type IV hot asphalt and back-nailed using 12 ga. ring shank nails and 32 ga., 1-5/8 inch diameter tin caps, 12 inch o.c.

Surfacing: Not included in this analysis. See "Installation Requirements" for acceptable Roof Assemblies.

Underlayment Uplift Design Pressure: -90.0 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**

Deck Type 1: Wood, Non-Insulated

Deck Description: 19/32" Plywood, APA rated sheathing, 40/20, Exposure 1, PS1, CDX, 4-ply secured with 8d ring shank nails, 6 inch o.c. at all supports.

System E(5): Anchor sheet mechanically fastened to deck; membrane adhered.

Anchor/Base Sheet: **Tarco 30# ASTM Specification Felt** mechanically attached with 12 ga. annular ring shank nails with 3/8 inch diameter heads through 32 ga., 1-5/8 inch diameter tin caps; 6 inch o.c. at the 4 inch laps and 6 inch o.c. at three equally spaced center rows.

Membrane: **NR600 Ultra** or **TopShield TS600 Ice & Water**, self-adhered and back-nailed using 12 ga. annular ring shank nails with 3/8 inch diameter heads through 32 ga., 1-5/8 inch diameter tin caps, 12 inch o.c.

Surfacing: Approved for asphalt shingle, mechanically fastened roof tile, foam-adhered roof tile, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA.

Note: For tile roof assemblies, refer to RAS 118, 119 or 120 and the tile manufacturer's NOA.

- For foam-adhered tile roof assemblies using **NR600 Ultra** or **TopShield TS600 Ice & Water**, approved for use with ICP's **APOC® Polyset® AH-160**, **APOC® Polyset® RTA-1**, DuPont's **TILE BOND™ Roof Tile Adhesive**, **DAP Storm Bond Roof Tile Adhesive (HFO)**, and **DAP Storm Bond 2 Roof Tile Adhesive (HFO)**.

Underlayment Uplift Design Pressure:

-52.5 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**

Deck Type 1: Wood, Non-Insulated

Deck Description: 19/32" Plywood, APA rated sheathing, 40/20, Exposure 1, PS 1-19, CDX, 4-ply secured with 8d ring shank nails, 6 inch o.c. at all supports.

System E(6): Anchor sheet mechanically fastened to deck; membrane adhered.

Anchor/Base Sheet: **Tarco 30# ASTM Specification Felt** mechanically attached with 12 ga. annular ring shank nails, 1-5/8 inch diameter tin caps; 6 inch o.c. at the 4 inch laps and 9 inch o.c. at two equally spaced center rows

Membrane: **ASTM Organic Tile Underlayment** adhered with ASTM D312, Type IV hot asphalt and back-nailed using 12 ga. ring shank nails and 32 ga., 1-5/8 inch diameter tin caps, 12 inch o.c.

Surfacing: Not included in this analysis. See "Installation Requirements" for acceptable Roof Assemblies.

Underlayment Uplift Design Pressure:

-45 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**



Deck Type 1: Wood, Non-Insulated

Deck Description: 19/32" Plywood, APA rated sheathing, 40/20, Exposure 1, PS 1-19, CDX, 4-ply secured with 8d ring shank nails, 6 inch o.c. at all supports.

System E(7): Anchor sheet mechanically fastened to deck; membrane adhered.

Anchor/Base Sheet: **Tarco 30# ASTM Specification Felt** mechanically attached with 12 ga. annular ring shank nails, 1-5/8 inch diameter tin caps; 6 inch o.c. at the 4 inch laps and 6 inch o.c. at two equally spaced center rows

Membrane: **ASTM Organic Tile Underlayment** adhered with ASTM D312, Type IV hot asphalt and back-nailed using 12 ga. ring shank nails and 32 ga., 1-5/8 inch diameter tin caps, 12 inch o.c.

Surfacing: Not included in this analysis. See "Installation Requirements" for acceptable Roof Assemblies.

Underlayment Uplift Design Pressure: -52.5 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**

Deck Type 1: Wood, Non-Insulated

Deck Description: 19/32" Plywood, APA rated sheathing, 40/20, Exposure 1, PS 1-19, CDX, 4-ply secured with 8d ring shank nails, 6 inch o.c. at all supports.

System E(8): Anchor sheet mechanically fastened to deck; membrane adhered.

Anchor/Base Sheet: **Tarco #30 ASTM Specification Felt** mechanically attached in a double layer fashion (overlapping the preceding layer top half plus 2") with 12 ga. annular ring shank nails, 1-5/8 inch diameter tin caps; start 6 inch o.c. with centerline 1 inch from the start edge, followed by rows spaced 8 inch o.c. with fasteners spaced 6 inch o.c. within each row.

Membrane: **ASTM Organic Tile Underlayment** adhered with ASTM D312, Type IV hot asphalt and back-nailed using 12 ga. ring shank nails and 32 ga., 1-5/8 inch diameter tin caps, 12 inch o.c.

Surfacing: Not included in this analysis. See "Installation Requirements" for acceptable Roof Assemblies.

Underlayment Uplift Design Pressure: -90 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**

Deck Type 1:	Wood, Non-Insulated
Deck Description:	19/32" Plywood, APA rated sheathing, 40/20, Exposure 1, PS 1-19, CDX, 4-ply secured with 8d ring shank nails, 6 inch o.c. at supports maximum 24" o.c. spacing.
System E(9):	Anchor sheet mechanically fastened to deck; membrane adhered.
Anchor/Base Sheet:	LeakBarrier® EasyLay® HS Base Sheet mechanically attached with 12 ga. annular ring shank nails with 32 ga., 1-5/8 inch diameter tin caps, Trufast VERSA-FAST Fasteners (two per plate) with Trufast VERSA-FAST Metal Plates, Trufast VERSA-FAST Fasteners (one per plate) with Trufast VERSA-FAST Metal Plates, or Trufast #12 DP Fasteners with Trufast 3" Metal Insulation Plates spaced 6" o.c. at the 4-inch labs and 6" o.c. at two equally spaced center rows.
Membrane:	NR600 Ultra or TopShield TS600 Ice & Water , self-adhered and back-nailed using 12 ga. annular ring shank nails and 32 ga., 1-5/8 inch diameter tinc caps, 12 inch o.c.
Surfacing:	Approved for asphalt shingle, mechanically fastened roof tile, foam-adhered roof tile, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA.
Note:	For tile roof assemblies, refer to RAS 118, 119 or 120 and the tile manufacturer's NOA. For foam-adhered tile roof assemblies using NR600 Ultra or TopShield TS600 Ice & Water, approved for use with ICP's APOC® Polyset® AH-160, APOC® Polyset® RTA-1, DuPont's TILE BOND™ Roof Tile Adhesive, DAP Storm Bond Roof Tile Adhesive (HFO), and DAP Storm Bond 2 Roof Tile Adhesive (HFO).
Underlayment Uplift Design Pressure:	-67.5 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**

Deck Type 1:	Wood, Non-Insulated
Deck Description:	19/32" Plywood, APA rated sheathing, 40/20, Exposure 1, PS 1-19, CDX, 4-ply secured with 8d ring shank nails, 6 inch o.c. at supports maximum 24" o.c. spacing.
System E(10):	Anchor sheet mechanically fastened to deck; membrane adhered.
Anchor/Base Sheet:	LeakBarrier® EasyLay® HS Base Sheet mechanically attached with 12 ga. annular ring shank nails with 32 ga., 1-5/8 inch diameter tin caps, Trufast VERSA-FAST Fasteners (two per plate) with Trufast VERSA-FAST Metal Plates, Trufast VERSA-FAST Fasteners (one per plate) with Trufast VERSA-FAST Metal Plates, or Trufast #12 DP Fasteners with Trufast 3" Metal Insulation Plates spaced 6" o.c. at the 4-inch labs and 6" o.c. at two equally spaced center rows.
Membrane:	FS500^{HT} , self-adhered and back-nailed using 12 ga. annular ring shank nails and 32 ga., 1-5/8 inch diameter tin caps, 12 inch o.c.
Surfacing:	Approved for asphalt shingle, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA.
Note:	• This assembly shall not be used with any Tile Roof Coverings.
Underlayment Uplift Design Pressure:	-67.5 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**

Deck Type 1:	Wood, Non-Insulated
Deck Description:	19/32" Plywood, APA rated sheathing, 40/20, Exposure 1, PS 1-19, CDX, 4-ply secured with 8d ring shank nails, 6 inch o.c. at supports maximum 24" o.c. spacing.
System E(11):	Anchor sheet mechanically fastened to deck; membrane adhered.
Anchor/Base Sheet:	Tarco #30 ASTM Specification Felt mechanically attached with 12 ga. x 1.5-inch annular ring shank nails with 32 ga., 1-5/8 inch diameter tin caps spaced 4" o.c. at the 4-inch labs and 4" o.c. at three equally spaced center rows.
Membrane:	ASTM Organic Tile Underlayment adhered with ASTM D312, Type IV hot asphalt and back-nailed using 12 ga. annular ring shank nails and 32 ga., 1-5/8 inch diameter tin caps, 12 inch o.c.
Surfacing:	Not included in this analysis. See "Installation Requirements" for acceptable Roof Assemblies.
Underlayment Uplift Design Pressure:	-105 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**

Deck Type 1:	Wood, Non-Insulated
Deck Description:	19/32" Plywood, APA rated sheathing, 40/20, Exposure 1, PS 1-19, CDX, 4-ply secured with 8d ring shank nails, 6 inch o.c. at supports maximum 24" o.c. spacing.
System E(12):	Anchor sheet mechanically fastened to deck; membrane adhered.
Anchor/Base Sheet:	LeakBarrier® EasyLay® HS Base Sheet mechanically attached with 12 ga. annular ring shank nails with 32 ga., 1-5/8 inch diameter tin caps, Trufast VERSA-FAST Fasteners (two per plate) with Trufast VERSA-FAST Metal Plates, Trufast VERSA-FAST Fasteners (one per plate) with Trufast VERSA-FAST Metal Plates, or Trufast #12 DP Fasteners with Trufast 3" Metal Insulation Plates spaced 6" o.c. at the 4-inch labs and 6" o.c. at four equally spaced center rows.
Membrane:	NR600 Ultra or TopShield TS600 Ice & Water , self-adhered and back-nailed using 12 ga. annular ring shank nails and 32 ga., 1-5/8 inch diameter tinc caps, 12 inch o.c.
Surfacing:	Approved for asphalt shingle, mechanically fastened roof tile, foam-adhered roof tile, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA.
Note:	For tile roof assemblies, refer to RAS 118, 119 or 120 and the tile manufacturer's NOA. For foam-adhered tile roof assemblies using NR600 Ultra or TopShield TS600 Ice & Water, approved for use with ICP's APOC® Polyset® AH-160, APOC® Polyset® RTA-1, DuPont's TILE BOND™ Roof Tile Adhesive, DAP Storm Bond Roof Tile Adhesive (HFO), and DAP Storm Bond 2 Roof Tile Adhesive (HFO).
Underlayment Uplift Design Pressure:	-120 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**

Deck Type 1:	Wood, Non-Insulated
Deck Description:	19/32" Plywood, APA rated sheathing, 40/20, Exposure 1, PS 1-19, CDX, 4-ply secured with 8d ring shank nails, 6 inch o.c. at supports maximum 24" o.c. spacing.
System E(13):	Anchor sheet mechanically fastened to deck; membrane adhered.
Anchor/Base Sheet:	LeakBarrier® EasyLay® HS Base Sheet mechanically attached with 12 ga. annular ring shank nails with 32 ga., 1-5/8 inch diameter tin caps, Trufast VERSA-FAST Fasteners (two per plate) with Trufast VERSA-FAST Metal Plates, Trufast VERSA-FAST Fasteners (one per plate) with Trufast VERSA-FAST Metal Plates, or Trufast #12 DP Fasteners with Trufast 3" Metal Insulation Plates spaced 6" o.c. at the 4-inch labs and 6" o.c. at four equally spaced center rows.
Membrane:	FS500^{HT} , self-adhered and back-nailed using 12 ga. annular ring shank nails and 32 ga., 1-5/8 inch diameter tin caps, 12 inch o.c.
Surfacing:	Approved for asphalt shingle, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA.
Note:	• This assembly shall not be used with any Tile Roof Coverings.
Underlayment Uplift Design Pressure:	-120 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**

Deck Type 1:	Wood, Non-Insulated
Deck Description:	19/32" Plywood, APA rated sheathing, 40/20, Exposure 1, PS 1-19, CDX, 4-ply secured with 8d ring shank nails, 6 inch o.c. at all supports.
System E(14):	Anchor sheet mechanically fastened to deck; membrane adhered.



Anchor/Base Sheet: Tarco #30 ASTM Specification Felt mechanically attached in a double layer fashion (overlapping the preceding layer top half plus 2") attached with 12 ga. annular ring shank nails, 1-5/8 inch diameter tin caps; start 4 inch o.c. with centerline 1 inch from the start edge, followed by rows spaced 8 inch o.c. with fasteners spaced 4 inch o.c. within each row

Membrane: ASTM Organic Tile Underlayment adhered with ASTM D312, Type IV hot asphalt and back-nailed using 12 ga. ring shank nails and 32 ga., 1-5/8 inch diameter tin caps, 12 inch o.c.

Surfacing: Not included in this analysis. See "Installation Requirements" for acceptable Roof Assemblies.

Underlayment Uplift Design Pressure: -142.5 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**

Deck Type 1: Wood, Non-Insulated

Deck Description: 19/32" Plywood, APA rated sheathing PS1, 32/16, Exposure 1, 15/32 category, CDX, 4-ply secured with 8d ring shank nails, 6 inch o.c. at all supports.

System E(15): Anchor sheet mechanically fastened to deck; membrane adhered.

Anchor/Base Sheet: LeakBarrier® EasyLay® HS Base attached with 12 ga. annular ring shank nails, 1-5/8 inch diameter tin caps; 8-in. o.c. at the 4-in. laps and 8-in. o.c. at three equally spaced center rows.

Membrane: NR600 Ultra, self-adhered and back-nailed using 12 ga. annular ring shank nails and 32 ga., 1-5/8 inch diameter tin caps, 12 inch o.c.

Surfacing: Not included in this analysis. See "Installation Requirements" for acceptable Roof Assemblies.

Underlayment Uplift Design Pressure: -52.5 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**

Deck Type 1: Wood, Non-Insulated

Deck Description: 19/32" Plywood, APA rated sheathing PS 1-19, 40/20, Exposure 1, 19/32 category, CDX, 4-ply secured with 8d ring shank nails, 6 inch o.c. at all supports.

System E(16): Anchor sheet mechanically fastened to deck; membrane adhered.

Anchor/Base Sheet: **LeakBarrier® EasyLay® HS Base** attached with 12 ga. annular ring shank nails, 1-5/8 inch diameter tin caps; 6-in. o.c. at the 4-in. laps and 12-in. o.c. at two equally spaced center rows

Membrane: **NR600 Ultra**, self-adhered and back-nailed using 12 ga. annular ring shank nails and 32 ga., 1-5/8 inch diameter tin caps, 12 inch o.c.

Surfacing: Not included in this analysis. See “Installation Requirements” for acceptable Roof Assemblies.

Underlayment Uplift Design Pressure: -45 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**

Deck Type 1: Wood, Non-Insulated

Deck Description: 19/32” Plywood, APA rated sheathing PS 1-19, 40/20, Exposure 1, 19/32 category, CDX, 4-ply secured with 8d ring shank nails, 6 inch o.c. at all supports.

System E(17): Anchor sheet mechanically fastened to deck; membrane adhered.

Anchor/Base Sheet: **LeakBarrier® EasyLay® HS Base** attached with 12 ga. annular ring shank nails, 1-5/8 inch diameter tin caps; 10-in. o.c. at the 4-in. laps and 10-in. o.c. at three equally spaced center rows

Membrane: **NR600 Ultra**, self-adhered and back-nailed using 12 ga. annular ring shank nails and 32 ga., 1-5/8 inch diameter tin caps, 12 inch o.c.

Surfacing: Not included in this analysis. See “Installation Requirements” for acceptable Roof Assemblies.

Underlayment Uplift Design Pressure: -67.5 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**

Deck Type 1: Wood, Non-Insulated

Deck Description: Minimum 19/32” plywood, wood plank

System F(1): Membrane self-adhered direct to deck.



Membrane:	MS300, PS200^{MU} or FS500^{HT} , self-adhered in accordance with FBC HVHZ 1518.2.1(1) and back-nailed using 12 ga. x 1-1/2" long x 3/8 head diameter annular ring shank roofing nails with 32 ga., 1-5/8" diameter tin caps max 12" o.c.
Surfacing:	See "Installation Requirements" for acceptable Roof Assemblies. This assembly shall not be used with any Tile Roof Coverings.
Deck Type 3:	Concrete, Non-Insulated
Deck Description:	Structural concrete or concrete plank min. 2500 psi
System F(2):	Membrane self-adhered to concrete deck.
Deck Preparation:	The concrete deck shall be clean and dry and cured for a minimum of 28 days.
Anchor/Base Sheet:	None.
Fastening:	Membrane shall be back nailed with approved concrete fasteners and 1-5/8" approved tin caps at a maximum spacing of 9" o.c. at the head laps and be covered by the preceding layer. No back nail fasteners or tin caps shall remain exposed).
Membrane:	PS200^{HT} , self-adhered membrane applied directly to concrete deck. (See Fastening above for back nailing)
Surfacing:	See "Installation Requirements" for acceptable Roof Assemblies. This assembly shall not be used with any Tile Roof Coverings.

Deck Type 3:	Concrete, Non-Insulated
Deck Description:	Structural concrete or concrete plank min. 2500 psi
System F(3):	Membrane self-adhered to concrete deck.
Deck Preparation:	The concrete deck shall be clean and dry and cured for a minimum of 28 days.
Anchor/Base Sheet:	None.
Fastening:	Membrane shall be back nailed with approved concrete fasteners and 1-5/8" approved tin caps at a maximum spacing of 9" o.c. at the head laps and be covered by the preceding layer. No back nail fasteners or tin caps shall remain exposed).
Membrane:	NR600 Ultra or TopShield TS600 Ice & Water , self-adhered membrane applied directly to concrete deck. (See Fastening above for back nailing)
Surfacing:	Approved for asphalt shingle, mechanically fastened roof tile, foam-adhered roof tile, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA
Note:	For tile roof assemblies, refer to RAS 118, 119 or 120 and the tile manufacturer's NOA. For foam-adhered tile roof assemblies using NR600 Ultra or TopShield TS600 Ice & Water, approved for use with ICP's APOC® Polyset® AH-160, APOC® Polyset® RTA-1, DuPont's TILE BOND™ Roof Tile Adhesive, DAP Storm Bond Roof Tile Adhesive (HFO), and DAP Storm Bond 2 Roof Tile Adhesive (HFO).
Maximum Design Pressure:	-217.5 psf.*

* **Maximum Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system. Refer to roof system NOA for maximum design pressure of the final roof assembly.**

Deck Type 3:	Concrete, Non-Insulated
Deck Description:	Structural concrete or concrete plank min. 2500 psi
System F(4):	Membrane self-adhered to concrete deck.
Deck Preparation:	The concrete deck shall be clean and dry and cured for a minimum of 28 days.
Anchor/Base Sheet:	None.
Fastening:	Membrane shall be back nailed with approved concrete fasteners and 15/8" approved tin caps at a maximum spacing of 9" o.c. at the head laps and be covered by the preceding layer. No back nail fasteners or tin caps shall remain exposed).
Primer:	D41 primer
Membrane:	NR600 Ultra or TopShield TS600 Ice & Water , self-adhered membrane applied directly to primed concrete deck. (See Fastening above for back nailing)
Surfacing:	Approved for asphalt shingle, mechanically fastened roof tile, foam-adhered roof tile, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA
Note:	For tile roof assemblies, refer to RAS 118, 119 or 120 and the tile manufacturer's NOA. For foam-adhered tile roof assemblies using NR600 Ultra or TopShield TS600 Ice & Water, approved for use with ICP's APOC® Polyset® AH-160, APOC® Polyset® RTA-1, DuPont's TILE BOND™ Roof Tile Adhesive, DAP Storm Bond Roof Tile Adhesive (HFO), and DAP Storm Bond 2 Roof Tile Adhesive (HFO).
Maximum Design Pressure:	-340.0 psf.*

- * **Maximum Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system. Refer to roof system NOA for maximum design pressure of the final roof assembly.**

Deck Type 1:	Wood, Non-Insulated
Deck Description:	15/32" APA rated, 32/16 span rating, CDX, 4-ply plywood or wood plank secured with #8 wood screws spaced 6" o.c. at supports maximum 24" o.c. spacing and blocking with a maximum 48" o.c. spacing.
System F(5):	Membrane self-adhered directly to wood deck.
All General and System Limitations shall apply.	
Membrane:	NR600 Ultra or TopShield TS600 Ice & Water, self-adhered with minimum 2" horizontal laps and minimum 6" vertical laps. Place the first course of membrane parallel to the eave, rolling the membrane to obtain maximum contact. Remove the release liner as the membrane is applied. When used in Tile roof systems the membrane shall be back nailed to deck with approved annular ring shank nails and caps at a maximum 12" o.c. at the side laps and 6" o.c. at the end laps. No nails or tin caps shall be exposed.
Surfacing:	Approved for asphalt shingle, mechanically fastened roof tile, foam-adhered roof tile, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA.
Note:	For tile roof assemblies, refer to RAS 118, 119 or 120 and the tile manufacturer's NOA. For foam-adhered tile roof assemblies using NR600 Ultra or TopShield TS600 Ice & Water, approved for use with ICP's APOC® Polyset® AH-160, APOC® Polyset® RTA-1, DuPont's TILE BOND™ Roof Tile Adhesive, DAP Storm Bond Roof Tile Adhesive (HFO), and DAP Storm Bond 2 Roof Tile Adhesive (HFO).
Underlayment Uplift Design Pressure:	-105 psf.*
*Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.	



Deck Type 1:	Wood, Non-Insulated
Deck Description:	15/32" APA rated, 32/16 span rating, CDX, 4-ply plywood or wood plank secured with #8 wood screws spaced 6" o.c. at supports maximum 24" o.c. spacing and blocking with a maximum 48" o.c. spacing.
System F(6):	Membrane self-adhered directly to wood deck.
All General and System Limitations shall apply.	
Joint Treatment:	PS200^{MU} , self-adhered with minimum 4" wide strips over all plywood joints.
Membrane:	NR600 Ultra or TopShield TS600 Ice & Water, self-adhered with minimum 2" horizontal laps and minimum 6" vertical laps. Place the first course of membrane parallel to the eave, rolling the membrane to obtain maximum contact. Remove the release liner as the membrane is applied. When used in Tile roof systems the membrane shall be back nailed to deck with approved annular ring shank nails and caps at a maximum 12" o.c. at the side laps and 6" o.c. at the end laps. No nails or tin caps shall be exposed.
Surfacing:	Approved for asphalt shingle, mechanically fastened roof tile, foam-adhered roof tile, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA.
Note:	For tile roof assemblies, refer to RAS 118, 119 or 120 and the tile manufacturer's NOA. For foam-adhered tile roof assemblies using NR600 Ultra or TopShield TS600 Ice & Water, approved for use with ICP's APOC[®] Polyset[®] AH-160, APOC[®] Polyset[®] RTA-1, DuPont's TILE BOND[™] Roof Tile Adhesive, DAP Storm Bond Roof Tile Adhesive (HFO), and DAP Storm Bond 2 Roof Tile Adhesive (HFO).
Underlayment Uplift Design Pressure:	-120 psf.*
*Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.	

Deck Type 1:	Wood, Non-Insulated
Deck Description:	15/32" APA rated, 32/16 span rating, CDX, 4-ply plywood or wood plank secured with #8 wood screws spaced 6" o.c. at supports maximum 24" o.c. spacing and blocking with a maximum 48" o.c. spacing.
System F(7):	Membrane self-adhered directly to wood deck.
All General and System Limitations shall apply.	
Base Ply:	PS200^{MU} , self-adhered back nailed to deck with approved annular ring shank nails and caps at a maximum 12" o.c.
Membrane:	NR600 Ultra or TopShield TS600 Ice & Water, self-adhered with minimum 2" horizontal laps and minimum 6" vertical laps. Place the first course of membrane parallel to the eave, rolling the membrane to obtain maximum contact. Remove the release liner as the membrane is applied. When used in Tile roof systems the base ply and membrane shall be back nailed to deck with approved annular ring shank nails and caps at a maximum 12" o.c. at the side laps and 6" o.c. at the end laps. No nails or tin caps shall be exposed.
Surfacing:	Approved for asphalt shingle, mechanically fastened roof tile, foam-adhered roof tile, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA.
Note:	For tile roof assemblies, refer to RAS 118, 119 or 120 and the tile manufacturer's NOA. For foam-adhered tile roof assemblies using NR600 Ultra or TopShield TS600 Ice & Water, approved for use with ICP's APOC[®] Polyset[®] AH-160, APOC[®] Polyset[®] RTA-1, DuPont's TILE BOND[™] Roof Tile Adhesive, DAP Storm Bond Roof Tile Adhesive (HFO), and DAP Storm Bond 2 Roof Tile Adhesive (HFO).
Underlayment Uplift Design Pressure:	-75 psf.*
*Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.	



- Deck Type 1:** Wood, Non-Insulated
- Deck Description:** 15/32" APA rated, 32/16 span rating, CDX, 4-ply plywood or wood plank secured with #8 wood screws spaced 6" o.c. at supports maximum 24" o.c. spacing and blocking with a maximum 48" o.c. spacing.
- System F(8):** Membrane self-adhered directly to wood deck.
- All General and System Limitations shall apply.**
- Primer:** ASTM D41 primer applied at a rate of 0.5 gal/sq.
- Membrane:** **NR600 Ultra** or **TopShield TS600 Ice & Water**, self-adhered with minimum 2" horizontal laps and minimum 6" vertical laps. Place the first course of membrane parallel to the eave, rolling the membrane to obtain maximum contact. Remove the release liner as the membrane is applied.
- When used in Tile roof systems the base ply and membrane shall be back nailed to deck with approved annular ring shank nails and caps at a maximum 12" o.c. at the side laps and 6" o.c. at the end laps. No nails or tin caps shall be exposed.
- Surfacing:** Approved for asphalt shingle, mechanically fastened roof tile, foam-adhered roof tile, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA.
- Note:** For tile roof assemblies, refer to RAS 118, 119 or 120 and the tile manufacturer's NOA.
- For foam-adhered tile roof assemblies using **NR600 Ultra** or **TopShield TS600 Ice & Water**, approved for use with ICP's **APOC® Polyset® AH-160**, **APOC® Polyset® RTA-1**, DuPont's **TILE BOND™ Roof Tile Adhesive**, **DAP Storm Bond Roof Tile Adhesive (HFO)**, and **DAP Storm Bond 2 Roof Tile Adhesive (HFO)**.

Underlayment Uplift

Design Pressure: -142.5 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**



Deck Type 1:	Wood, Non-Insulated
Deck Description:	15/32" APA rated, 32/16 span rating, CDX, 4-ply plywood or wood plank secured with #8 wood screws spaced 6" o.c. at supports maximum 24" o.c. spacing and blocking with a maximum 48" o.c. spacing.
System F(9):	Membrane self-adhered directly to wood deck.
All General and System Limitations shall apply.	
Membrane:	PS200^{HT}, self-adhered with minimum 2" horizontal laps and minimum 6" vertical laps. Place the first course of membrane parallel to the eave, rolling the membrane to obtain maximum contact. Remove the release liner as the membrane is applied. When used in Tile roof systems the base ply and membrane shall be back nailed to deck with approved annular ring shank nails and caps at a maximum 12" o.c. at the side laps and 6" o.c. at the end laps. No nails or tin caps shall be exposed.
Surfacing:	Approved for asphalt shingle, mechanically fastened roof tile, foam-adhered roof tile, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA.
Note:	For tile roof assemblies, refer to RAS 118, 119 or 120 and the tile manufacturer's NOA. For foam-adhered tile roof assemblies using PS200^{HT}, approved for use with ICP's APOC[®] Polyset[®] RTA-1, TILE BOND[™] Roof Tile Adhesive, DAP Storm Bond Roof Tile Adhesive (HFO), and DAP Storm Bond 2 Roof Tile Adhesive (HFO).
Underlayment Uplift	
Design Pressure:	-82.5 psf.*
*Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.	

Deck Type 1:	Wood, Non-Insulated
Deck Description:	15/32" APA rated, 32/16 span rating, CDX, 4-ply plywood or wood plank secured with #8 wood screws spaced 6" o.c. at supports maximum 24" o.c. spacing and blocking with a maximum 48" o.c. spacing.
System F(10):	Membrane self-adhered directly to wood deck.
All General and System Limitations shall apply.	
Joint Treatment:	PS200^{MU} , self-adhered with minimum 4" wide strips over all plywood joints.
Membrane:	PS200^{HT}, self-adhered with minimum 2" horizontal laps and minimum 6" vertical laps. Place the first course of membrane parallel to the eave, rolling the membrane to obtain maximum contact. Remove the release liner as the membrane is applied. When used in Tile roof systems the base ply and membrane shall be back nailed to deck with approved annular ring shank nails and caps at a maximum 12" o.c. at the side laps and 6" o.c. at the end laps. No nails or tin caps shall be exposed.
Surfacing:	Approved for asphalt shingle, mechanically fastened roof tile, foam-adhered roof tile, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA.
Note:	For tile roof assemblies, refer to RAS 118, 119 or 120 and the tile manufacturer's NOA. For foam-adhered tile roof assemblies using PS200^{HT}, approved for use with ICP's APOC[®] Polyset[®] RTA-1, TILE BOND[™] Roof Tile Adhesive, DAP Storm Bond Roof Tile Adhesive (HFO), and DAP Storm Bond 2 Roof Tile Adhesive (HFO).
Underlayment Uplift Design Pressure:	-60 psf.*
*Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.	

Deck Type 1:	Wood, Non-Insulated
Deck Description:	19/32" APA rated sheathing PS2, CDX, 4-ply plywood or wood plank secured with 8d ring shank nails spaced 6" o.c., maximum 24" o.c. spacing
System F(11):	Membrane self-adhered directly to wood deck.
Membrane:	NR600 Ultra or TopShield TS600 Ice & Water, self-adhered with minimum 2" horizontal laps and minimum 6" vertical laps. Place the first course of membrane parallel to the eave, rolling the membrane to obtain maximum contact. Remove the release liner as the membrane is applied. When used in Tile roof systems the membrane shall be back nailed to the deck with approved annular ring shank nails and caps at a maximum 12" o.c. at the side laps. No nails or tin caps shall be exposed.
Surfacing:	Approved for asphalt shingle, mechanically fastened roof tile, foam-adhered roof tile, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA.
Note:	For tile roof assemblies, refer to RAS 118, 119 or 120 and the tile manufacturer's NOA. For foam-adhered tile roof assemblies using NR600 Ultra or TopShield TS600 Ice & Water, approved for use with ICP's APOC® Polyset® AH-160, APOC® Polyset® RTA-1, DuPont's TILE BOND™ Roof Tile Adhesive, DAP Storm Bond Roof Tile Adhesive (HFO), and DAP Storm Bond 2 Roof Tile Adhesive (HFO).
Underlayment Uplift Design Pressure:	-112.5 psf.*

*Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.



Deck Type 1:	Wood, Non-Insulated
Deck Description:	19/32" APA rated sheathing PS2, CDX, 4-ply plywood or wood plank secured with 8d ring shank nails spaced 6" o.c., maximum 24" o.c. spacing
System F(12):	Membrane self-adhered directly to wood deck.
Primer:	ASTM D41 primer applied at ~0.5 gal/square.
Membrane:	NR600 Ultra or TopShield TS600 Ice & Water, self-adhered with minimum 2" horizontal laps and minimum 6" vertical laps. Place the first course of membrane parallel to the eave, rolling the membrane to obtain maximum contact. Remove the release liner as the membrane is applied. When used in Tile roof systems the membrane shall be back nailed to the deck with approved annular ring shank nails and caps at a maximum 12" o.c. at the side laps. No nails or tin caps shall be exposed.
Surfacing:	Approved for asphalt shingle, mechanically fastened roof tile, foam-adhered roof tile, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA.
Note:	For tile roof assemblies, refer to RAS 118, 119 or 120 and the tile manufacturer's NOA. For foam-adhered tile roof assemblies using NR600 Ultra or TopShield TS600 Ice & Water, approved for use with ICP's APOC® Polyset® AH-160, APOC® Polyset® RTA-1, DuPont's TILE BOND™ Roof Tile Adhesive, DAP Storm Bond Roof Tile Adhesive (HFO), and DAP Storm Bond 2 Roof Tile Adhesive (HFO).
Underlayment Uplift Design Pressure:	-150.0 psf.*
*Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.	

Deck Type 1:	Wood, Non-Insulated
Deck Description:	19/32" APA rated sheathing PS2, CDX, 4-ply plywood or wood plank secured with 8d ring shank nails spaced 4" o.c., maximum 24" o.c. spacing
System F(13):	Membrane self-adhered directly to wood deck.
Membrane:	NR600 Ultra or TopShield TS600 Ice & Water, self-adhered with minimum 2" horizontal laps and minimum 6" vertical laps. Place the first course of membrane parallel to the eave, rolling the membrane to obtain maximum contact. Remove the release liner as the membrane is applied. When used in Tile roof systems the membrane shall be back nailed to the deck with approved annular ring shank nails and caps at a maximum 12" o.c. at the side laps. No nails or tin caps shall be exposed.
Surfacing:	Approved for asphalt shingle, mechanically fastened roof tile, foam-adhered roof tile, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA
Note:	For tile roof assemblies, refer to RAS 118, 119 or 120 and the tile manufacturer's NOA. For foam-adhered tile roof assemblies using NR600 Ultra or TopShield TS600 Ice & Water, approved for use with ICP's APOC® Polyset® AH-160, APOC® Polyset® RTA-1, DuPont's TILE BOND™ Roof Tile Adhesive, DAP Storm Bond Roof Tile Adhesive (HFO), and DAP Storm Bond 2 Roof Tile Adhesive (HFO).
Underlayment Uplift Design Pressure:	-142.5 psf.*
*Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.	

- Deck Type 1:** Wood, Non-Insulated
- Deck Description:** 19/32" Plywood, APA rated sheathing PS2, 40/20, Exposure 1, CDX, 4-ply at 24 inch span secured with 8d ring shank nails, 4 inch o.c.
- System F(14):** Membrane self-adhered directly to primed wood deck.
- Primer:** ASTM D41 primer applied at a rate of 0.5 gal/sq.
- Membrane:** **NR600 Ultra** or **TopShield TS600 Ice & Water**, self-adhered to the deck and back-nailed using 12 ga. annular ring shank nails and 1-5/8 inch diameter tin caps, 12 inch o.c.
- Surfacing:** Approved for asphalt shingle, mechanically fastened roof tile, foam-adhered roof tile, non-structural metal roofing, wood shakes & shingles or slate roof assemblies as specified within the Roof System NOA.
- Note:** For tile roof assemblies, refer to RAS 118, 119 or 120 and the tile manufacturer's NOA.
- For foam-adhered tile roof assemblies using **NR600 Ultra** or **TopShield TS600 Ice & Water**, approved for use with ICP's **APOC® Polyset® AH-160**, **APOC® Polyset® RTA-1**, DuPont's **TILE BOND™ Roof Tile Adhesive**, **DAP Storm Bond Roof Tile Adhesive (HFO)**, and **DAP Storm Bond 2 Roof Tile Adhesive (HFO)**.

Underlayment Uplift

Design Pressure: -82.5 psf.*

***Underlayment Uplift Design Pressure rating above is included for additional analysis of the underlayment assembly only by the Authority Having Jurisdiction. This value does not include the roof system.**



INSTALLATION REQUIREMENTS – TARCO SELF-ADHERED UNDERLAYMENTS:

1. Tarco self adhering underlayments shall be installed in strict compliance with applicable Building Codes.
2. Observe and comply with roofing practices and guidelines as outlined by the National Roofing Contractors Associations (NRCA) when installing Tarco self adhering underlayments.
3. During installation, comply with Occupational Safety and Health Administration (OSHA) safety standards; use common sense measures and adequate safety precautions to prevent accidents.
4. **PS200^{HT}** shall be acceptable underlayment for mechanically fastened roof tile and adhered roof tile applications used with **APOC[®] Polyset[®] RTA-1, TILE BOND[™] Roof Tile Adhesive, DAP Storm Bond Roof Tile Adhesive (HFO), and DAP Storm Bond 2 Roof Tile Adhesive (HFO).** **NR600 Ultra and TopShield TS600 Ice & Water** shall be acceptable underlayment for mechanically fastened roof tile and adhered roof tile applications with **APOC[®] Polyset[®] AH-160, APOC[®] Polyset[®] RTA-1, TILE BOND[™] Roof Tile Adhesive, DAP Storm Bond Roof Tile Adhesive (HFO), and DAP Storm Bond 2 Roof Tile Adhesive (HFO).** **MS300, PS200^{MU}, FS500^{HT} and EasyLay[®] UDL HT** shall be acceptable underlayments for asphaltic shingles, wood shakes and shingles, and slate or simulated slate roof assemblies. **NR600 Ultra, TopShield TS600 Ice & Water, PS200^{HT}, PS200^{MU}, FS500^{HT} and EasyLay[®] UDL HT** shall be acceptable underlayment for metal roof assemblies.
5. Re-fasten any loose decking panels, and check for protruding nail heads prior to the application of the Tarco self adhering underlayments.
6. Tarco self adhering underlayments shall not be adhered directly over any pre-existing roof membrane.
7. All approved substrates are to be clean, dry and free of any loose debris or moisture prior to the application of the Tarco self adhering underlayments. Refer applicable building codes prior to installation to verify acceptable substrates.
8. Prime all metal collars, flashing, valleys, liner, drip edge and concrete deck substrate with ASTM D 41 primer, water based acrylic or water based polymer modified primer (unless specified within the approved assemblies).
9. Contractor may cut the underlayments into sections for workability and allow to relax prior to application.
10. Place the underlayments over metal drip edge in accordance with RAS 111.
11. Install the first course of underlayment parallel to the eave edge.
12. Apply the underlayment, working from the center of the material continuously to the ends of the sheet (half of the length of the sheet is the center); taking care to avoid wrinkles and ridges.
13. Remove the underlayments release film rapidly in a continuous fashion. Ensure the bottom adhesive side of the membrane does not adhere to its self. In the event this transpires, separate the two layers immediately. After some time, it may become impossible to do so without damaging the material.
14. It is recommended that end laps be staggered a minimum of 18" from the preceding course.
15. Underlayments are to be back nailed along the head lap. The nails shall be, 11 gauge 1¹/₄" approved ring shank type applied with a minimum of a 1⁵/₈" approved tin cap or approved capnail as required per the High Velocity Hurricane Zone (HVHZ) section of the FBC, at a minimum rate of 9" o.c. The head lap of the preceding layer of underlayment is to cover the area being back nailed.
16. Roll or broom the entire membrane surface paying special attention to all overlap areas "side laps, end laps, T-joints" to ensure adhesion with acceptable substrates. A minimum of a 28 lb weighted roller may be used for steep slope applications. The use of a soft bristled push broom is acceptable on steeper slopes. The above mentioned procedures are necessary in order to apply uniform pressure and allow for contact of the membranes.
17. Apply 1¹/₈" thick uniform layer of SBS trowel grade modified bitumen asphalt adhesive / flashing cement throughout the contact area of the 6" granule over granule and fabric over fabric end laps. Once the aforementioned procedure has been completed, the membrane must then be hand rolled in place in order to ensure contact of membrane and achieve a minimum of 1/8th" asphaltic bleed out in designated area.
18. Tarco self adhering underlayments shall be applied to protrusions, slope changes, valleys, curbs, and other roof top penetrations before any other sections of the roof.

INSTALLATION REQUIREMENTS – TARCO SELF-ADHERED UNDERLAYMENTS: (CONTINUED)

19. When applying underlayments in the valley, start at the low point and work to the high point, rolling the membrane from the center outward in each direction.
20. For ridge applications, center the underlayment and roll from the center outward in both directions.
21. Flash vent pipes, stacks, chimneys and penetrations in compliance with Roof Assembly current Product Control Notice of Acceptance and applicable Building Code.
22. All protrusions or drains shall be initially taped with a 6" piece of like kind membrane. The flashing tape shall be pressed in place and formed around the protrusion to ensure a tight fit. A second layer of like kind membrane shall be applied over the flashing detail.
23. Vertical strapping of Tarco self adhering membranes is acceptable.

GENERAL LIMITATIONS – TARCO SELF-ADHERED UNDERLAYMENTS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. This acceptance is for prepared roofing applications. Minimum deck requirements shall be in compliance with applicable building code.
3. Tarco self adhering underlayments shall be applied only when material interface temperatures are 40° F and rising.
4. Tarco self-adhered underlayments shall not be installed when any form of moisture such as water, dew, rain, etc. is present on the substrate.
5. Tarco self-adhered underlayments are to be applied to a smooth, clean and dry surface, with the deck free from irregularities.
6. Ensure roof has positive drainage prior to installation of Tarco self-adhered underlayments.
7. Tarco self adhering underlayments shall not be adhered directly over any pre-existing roof membrane.
8. After installation of Tarco self-adhered membranes, wait a minimum of 48 hours before roof loading of tiles.
9. Care should be taken during the loading procedure to keep foot traffic to a minimum and avoid dropping the roof covering directly on the underlayment.
10. All tiles shall be staged (two tiles perpendicular to slope, four tiles on top parallel to slope) as per manufacturer's requirements, not to exceed 6-high, to the standard maximum roof pitch of 6 :12 for flat tiles and 6 :12 for lugged tiles (See Tile Staging Method diagram below).

At roof slopes greater than the above limitations, the use of loading battens or toe boards are required to load the roof tile.

Tile Staging Method



Front View - Staged Tiles (Slope →)



Side View - Staged Tiles (Slope ↓)

GENERAL LIMITATIONS – TARCO SELF-ADHERED UNDERLAYMENTS: (CONTINUED)

11. 1-ply system of NR600 or 2-ply system of PS200^{MU} followed by NR600 Ultra or TopShield TS600 Ice & Water shall be staged (10-tile stack) as per manufacturer's requirements, not to exceed 10-high, to the standard maximum roof pitch of 6 :12 for flat tiles and 6 :12 for lugged tiles (See Tile Staging Method diagram below).

At roof slopes greater than the above limitations, the use of loading battens or toe boards are required to load the roof tile.

Tile Staging Method



Side View - Staged Tiles (Slope ↓)

12. The manufacturer reserves the right to change the tile staging method at any time as well as the number of tiles stacked, not to exceed the preceding maximum number of tiles limitation.
13. **MS300**, **EasyLay UDL HT** and **PS200^{MU}** shall not be left exposed as a temporary roof for longer than 30 days after application. **PS200^{HT}**, **NR600 Ultra**, **TopShield TS600 Ice & Water**, and **FS500^{HT}** shall not be left exposed as a temporary roof for longer than 180 days after application. If an Executive Order is in place, then the following underlayment: **NR600 Ultra** and **TopShield TS600 Ice & Water** may be left exposed an additional 180 days for a total of 360 days from the day of installation. The manufacturer reserves the right to change product exposure period at any time; not to exceed the preceding maximum time limitations.
14. Refer to prepared roofing system Product Control Notice of Acceptance for listed approval of Tarco underlayments with specific prepared roofing products. Tarco self-adhered underlayments may be used with any approved roof coverings Notice of Acceptance listing Tarco self adhering underlayments or the ASTM standard which the self adhering underlayments meet as a component part of an assembly in the Notice of Acceptance. If Tarco self-adhered underlayments or the ASTM standards are not listed, a request may be made to the Authority Having Jurisdiction (AHJ) or the Miami-Dade County Product Control Department for approval provided that appropriate documentation is provided to detail compatibility of the product, wind uplift resistance, and fire testing results.
15. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

MANUFACTURER'S CONSIDERATIONS:

1. When using **PS200^{HT}**, **NR600 Ultra**, and **TopShield TS600 Ice & Water** in tile roofing applications, use of loading battens or toe boards on roof slopes greater than 6:12 and higher is recommended.
2. Code body requirements supersede manufacturer's recommendations and installation guidelines.

END OF THIS ACCEPTANCE