



**BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION**

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

NOTICE OF ACCEPTANCE (NOA)

**Soprema, Inc.
310 Quadral Drive
Wadsworth, OH 44281**

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 Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Soprema Tri-Fix Fastener

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 renews NOA No. 01-0116.08 and consists of pages 1 through 5.
The submitted documentation was reviewed by Jorge L. Acebo



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Expiration Date: 03/01/11
Approval Date: 03/16/06
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ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Roofing Fastener
Material: Steel

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Tri-Fix Fastener	3" diameter plate with fastener dimensions of 3.5" length 0.148 dia. Shank 0.313 dia. Head	TAS 117 TAS 114	Galvanized stress plate with three distending legs for membrane attachment to lightweight concrete, cementitious wood fiber and gypsum roof decks.

EVIDENCE SUBMITTED:

<u>Test Agency/Identifier</u>	<u>Name</u>	<u>Report</u>	<u>Date</u>
Factory Mutual Research Corporation	Standard 4470 TAS 114, Appendix E	J.I. 4D6A7.AM	04/26/99
Exterior Research & Design, LLC	TAS 117	#2714.05.98-1	05/15/98

TYPICAL PROPERTIES:

Withdrawal Resistance Performance - TAS 117(A) - <u>Static</u> Load (with 2 to 1 margin of safety applied)			
Fastener	Deck Type	3-Day Cure (lbf)	28-Day Cure (lbf)
Tri-Fix	Min. 200-psi cellular lwc	52	140
	Min. 300-psi cellular lwc	82	173
	Min. 180-psi aggregate lwc	63	122
	Cementitious wood fiber	137	
	Poured gypsum	205	

Withdrawal Resistance Performance - TAS 117(A) - <u>Pulsating</u> Load (with 2 to 1 margin of safety applied)		
Fastener	Deck Type	Withdrawal (lbf)
Tri-Fix	Min. 200-psi cellular lwc	115
	Min. 300-psi cellular lwc	140
	Min. 180-psi aggregate lwc	100
	Cementitious wood fiber	105
	Poured gypsum	155



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**Base Sheet Rupture Performance - TAS 117(B), Tri-Fix Plate
(with 2 to 1 margin of safety applied)**

Base Sheet	Value
Sopra-G	109.4
Modified Sopra-G	105.6
Soprafix Membrane	221.5
Soprafixx Membrane	312.5

1. A 2 to 1 margin of safety has been applied to test results providing the above noted design values.

APPROVED APPLICATIONS:

Tradename: **Tri-Fix**

Compatible Plate(s): Tri-Fix Plate

Application: Mechanical attachment of roof coverboards (noted above) or base sheets / base membranes in minimum two ply, modified bitumen roof systems. See specific Roof System Product Control Notice Of Acceptance for fastener density and approved attachment patterns.

Each nail must be placed through the punch marks indicated every 120°. Each nail must be driven at an angle between 45° and 60° from the horizontal plane of the deck substrate. The head of each nail must be flush to the nail ramp concentric ring. The nail must be driven by the **N-DECK 3.5** Soprema multiple strike impact nail driver. No substitution shall be allowed.

Deck: Cellular or Aggregate Lightweight Insulating Concrete, Cementitious Wood Fiber, Poured Gypsum



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DRAWINGS

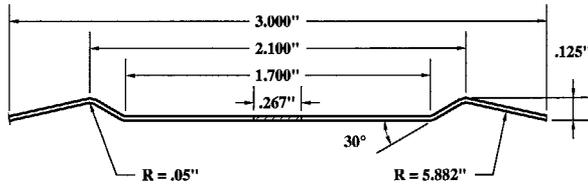
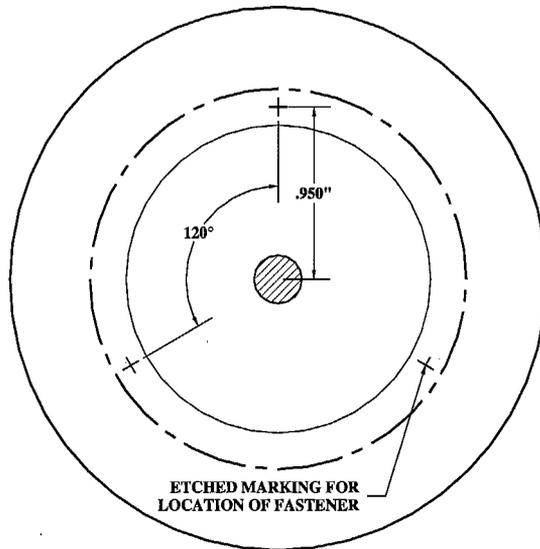
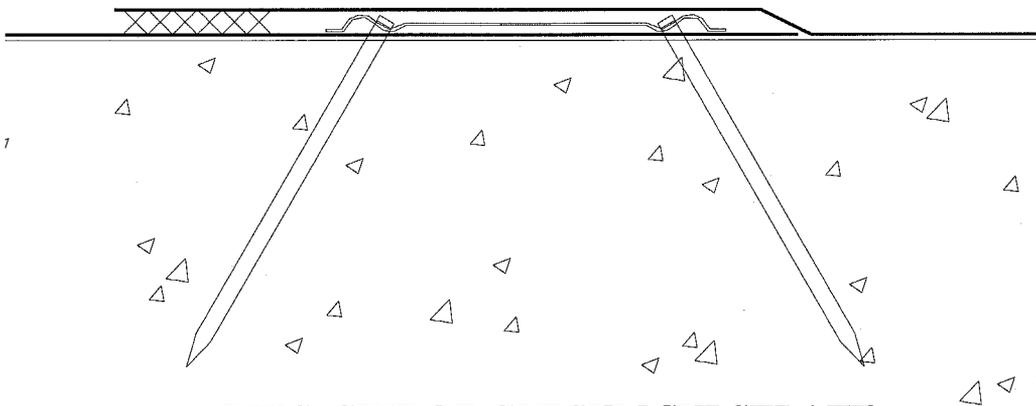


PLATE IS MADE FROM 26 GAGE (0.0188") GALVALUME
MATERIAL SHALL HAVE A 45 TO 50 KSI YIELD STRENGTH



LWC, CWF OR GYPSUM SUBSTRATE



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



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