



MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING

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

PRODUCT CONTROL NOTICE OF ACCEPTANCE

ES Products, Inc.
280 Franklin Street
Bristol

RI 02809

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

CONTRACTOR ENFORCEMENT SECTION
(305) 375-2966 FAX (305) 375-2908

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

Your application for Product Approval of:

Base Sheet Fasteners

under Chapter 8 of the Code of Miami-Dade County governing the use of Alternate Materials and Types of Construction, and completely described herein, has been recommended for acceptance by the Miami-Dade County Building Code Compliance Office (BCCO) under the conditions specified herein.

This approval shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at anytime from a jobsite or manufacturer's plant for quality control testing.

If this product or material fails to perform in the approved manner, BCCO may revoke, modify, or suspend the use of such product or material immediately. BCCO reserves the right to revoke this approval, if it is determined BCCO that this product or material fails to meet the requirements of the South Florida Building Code.

The expense of such testing will be incurred by the manufacturer.

Acceptance No.: 99-1124.01 (Revises No.: 97-0721.01)

Expires: 01/28/2003

Raul Rodriguez
Chief Product Control Division

THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL CONDITIONS

BUILDING CODE & PRODUCT REVIEW COMMITTEE

This application for Product Approval has been reviewed by the BCCO and approved by the Building Code and Product Review Committee to be used in Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.
Director

Miami-Dade County
Building Code Compliance Office

Approved: 01/28/2000



ES Products, Inc.

ACCEPTANCE No. : 99-1124.01

APPROVED : January 28, 2000

EXPIRES : January 28, 2003

NOTICE OF ACCEPTANCE:STANDARD CONDITIONS

1. SCOPE

This renews ES Products, Inc. roofing fastener systems described in Section 3 of this Notice of Acceptance, designed to comply with the South Florida Building Code, 1994 Edition for Miami-Dade County.

Category: Roofing Fasteners
Sub Category: Base Sheet

2. PRODUCT DESCRIPTION

<u>Product</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
FM-30 Bearing Stress Plate	2.7" round stress plate	PA 114 / PA 117	Steel bearing stress plate, coated with AZ-55 galvalume or black urethane coating on both sides, for use with FM-45 and FM-60 fasteners for base ply attachment.
FM-45 Base Ply Fastener	1.2" head x 1.2" long	PA 114 / PA 117	FM-45 base ply fasteners are formed from 0.013 in. thick G-90 hot dipped galvanized steel. The integral rib reinforced cap is coated on both sides with a black urethane coating. The stems are uncoated. For use in NVS concrete and various poured gypsum decks.
FM-60 Base Ply Fastener	1.2" head x 1.7" long	PA 114 / PA 117	Formed from 0.013 in. thick G-90 hot dipped galvanized steel. The integral rib reinforced cap is coated on both sides with a black urethane coating. Stems are not coated. For use in cellular or aggregate lightweight concrete decks and various poured gypsum decks.



Frank Zuloaga RRC, Product Control Examiner
Product Control Division

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<u>Product</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
FM-75 Assembled Base Ply Fastener	2.7" head x 1.2" long	PA 114 / PA 117	Formed from 0.013 in. thick G-90 hot dipped galvanized steel. The integral rib reinforced cap is coated on both sides with a black urethane coating. A 2.7 in. diameter disc formed from 0.013 AZ-55 galvalume steel is factory assembled to each fastener. For use in cellular and aggregate lightweight concrete decks and various poured gypsum decks.
FM-90 Assembled Base Ply Fastener	2.7" head x 1.7" long	PA 114 / PA 117	Formed from 0.013 in. thick G-90 hot dipped galvanized steel. The integral rib reinforced cap is coated on both sides with a black urethane coating. A 2.7 in. diameter disc formed from 0.013 AZ-55 galvalume steel is factory assembled to each fastener. For use in cellular and aggregate lightweight concrete decks and various poured gypsum decks.
Insuldeck Loc-Nail Assembled Base Ply Fastener	2.7" head x 1-7/8" long	PA 114 / PA 117	Formed from .024" thick AZ-55 hot dipped galvalume steel. A 2.7" diameter disk formed from .013" AZ-55 Galvalume steel is factory assembled to each fastener. For use in cementitious wood fiber decks.
Nail-Tite Type A	1.7" head x 1.5" long	PA 114 / PA 117	Galvalume AZ-55 steel cap and G-90 galvanized shank. One piece fastener for use in new or existing gypsum decks.
Nail-Tite Type R	1.7" head x 1.0" long	PA 114 / PA 117	Galvalume AZ-55 steel cap and G-90 galvanized shank. One piece fastener for use in existing gypsum decks.



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2.1 TYPICAL PROPERTIES

Note: A margin of safety of 2 has been applied to the listed test results.

Withdrawal Resistance Performance - PA 117(A) - Static Load			
Fastener	Deck Type	Static Withdrawal Resistance (lbf)	
FM-45 & FM-75	poured gypsum	30.0	
Nail-Tite Type A	poured gypsum	69.4	
Nail-Tite Type R	poured gypsum	67.3	
FM-60 & FM-90	min. 200 psi cellular lightweight concrete	3 day cure	28 day cure
		32.1	53.5
	min. 200 psi aggregate lightweight concrete	3 day cure	28 day cure
		39.9	77.3
Insuldeck Loc-Nail	cementitious wood fiber	31.8	

Withdrawal Resistance Performance - PA 117(A) - Pulsating Load		
Fastener	Deck Type	Static Withdrawal Resistance (lbf)
FM-45 & FM-75	poured gypsum	25.8
Nail-Tite Type A	poured gypsum	51.4
Nail-Tite Type R	poured gypsum	37.2
FM-60 & FM-90	min. 200 psi cellular lightweight concrete	28 day cure
		42.9
	min. 200 psi aggregate lightweight concrete	28 day cure
		66.3
Insuldeck Loc-Nail	cementitious wood fiber	20.8

Base Sheet Rupture Performance, PA 117(B): 2.7" FM-30 Plate (FM-45 with FM-30, FM-60 with FM-30, FM-75 or FM-90) or Insuldeck Loc-Nail					
Manuf.	Base Sheet	Rupture Value (lbf)	Manuf.	Base Sheet	Rupture Value (lbf)
Allied Signal	Glass Fiber Base Sheet	84	Schuller International	Glasbase	103
	Vented Base Sheet	85		Dynabase	104
Celotex	Channel Vent GB	95		Ventsulation	109

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	Vaporbar GB	92	Siplast	Parabase	101
	Hydrostop	102		Parabase Plus	100
Firestone	MB Base	88	SOPREMA, Inc.	Sopra-G	103
GAF	GAFGLAS #75	103		Elastophene 180	107
	Stratavent	89		Sopralene 180	115
GS Roofing	Flex-I-Glas Base	106	Tamko Roofing Products, Inc.	Nail Fast	99
	PolySMS	111		Versa Base	106
Koppers	Glass Fiber Base	108	Tremco	BURmastic Glass Ply	114
	Organic Base	94		BURmastic Composite Ply	114
Malarkey	#501	110	U.S. Intec, Inc.	Ultra Base	95.0
	#602	107		Flex Base	111
	#603	114		Modified Base	111
	#605	109		Permavent	117
Nord	NBS G-2 Base	102	W.P. Hickman Systems, Inc.	Multi Ply	112
	Nordstar Base	110		Performance Ply	113
				Pika Ply SS-2	116

Base Sheet Rupture Performance, PA 117(B): 1.7" Head (Nail-Tite, Type A or R)					
Manuf.	Base Sheet	Rupture Value (lbf)	Manuf.	Base Sheet	Rupture Value (lbf)
Allied Signal	Glass Fiber Base Sheet	60	Schuller International	Glasbase	45
	Vented Base Sheet	61		Dynabase	73
Celotex	Channel Vent GB	60		Ventsulation	78
	Vaporbar GB	61		PermaPly 28	56
Firestone	MB Base	59	SOPREMA	Sopra-G	63
GAF	GAFGLAS #75	49		Modified Sopra-G	52
	Stratavent	56	Tamko	Glass-Base	70
	Ruberoid Base	71		VaporChan	75
GS Roofing	Flex-I-Glas Base	77		BURMastic	78

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				Composite Ply	
	PolySMS	79		BURMastic Glass Ply	61
Malarkey	#501	52	US Intec	Ultrabase	71
	#515	76		Flex Base 30	53
	#602	74		Modified Base Plus	75
	#603	79	WP Hickman	Multi-Ply Glass	71
	#605	78		Performance Ply	53

3. APPROVED APPLICATIONS

Tradename:FM-45 Base Sheet Fastener

Compatible Plate(s): FM-30 Discs.

Application: See specific Roof Assembly Product Control Notice of Acceptance for fastener density and Approved attachment patterns.

Deck: Approved NVS lightweight concrete, various poured gypsums, existing gypsum. See lightweight concrete deck Notice of Acceptance for Approved deck systems.

Tradename: FM-60 Base Sheet Fastener

Compatible Plate(s): FM-30 Discs.

Application: See specific Roof Assembly Product Control Notice of Acceptance for fastener density and Approved attachment patterns.

Deck: Approved minimum 200 psi aggregate or cellular lightweight concrete. See lightweight concrete deck Notice of Acceptance for Approved deck systems

Tradename: FM-75 Assembled Base Sheet Fastener

Compatible Plate(s): N/A



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NOTICE OF ACCEPTANCE:STANDARD CONDITIONS

Application: FM-75 Base Ply Fastener is an approved and acceptable alternate to the Olympic Assembled CR 1.2” Base Sheet Fastener. FM-75 Base Ply Fasteners may be used in any approved Roof Assembly NOA where the Olympic Assembled CR 1.2” Base Sheet Fastener is referenced. Approved fastening patterns and densities listed in any approved Roof Assembly NOA containing the Olympic Assembled CR 1.2” Base Sheet Fastener shall be acceptable when using FM-75 Base Ply Fasteners.

Deck: Approved NVS lightweight concrete, various poured gypsums, existing gypsum. See lightweight concrete deck Notice of Acceptance for Approved deck systems

Tradename: **FM-90 Assembled Base Sheet Fastener**

Compatible Plate(s): N/A

Application: FM-90 Base Ply Fastener is an approved and acceptable alternate to the Olympic Assembled CR 1.7” Base Sheet Fastener. FM-90 Base Ply Fasteners may be used in any approved Roof Assembly NOA where the Olympic Assembled CR 1.7” Base Sheet Fastener is referenced. Approved fastening patterns and densities listed in any approved Roof Assembly NOA containing the Olympic Assembled CR 1.7” Base Sheet Fastener shall be acceptable when using FM-90 Base Ply Fasteners.

Deck: Approved minimum 200 psi aggregate or cellular lightweight concrete. See lightweight concrete deck Notice of Acceptance for Approved deck systems.

Tradename: **Nail-Tite Type A**

Compatible Plate(s): Integral 1.7” head

Application: See specific Roof Assembly Product Control Notice of Acceptance for fastener density and Approved attachment patterns.

Deck: New or existing gypsum.



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Tradename: Nail-Tite Type R

Compatible Plate(s): Integral 1.7" head

Application: See specific Roof Assembly Product Control Notice of Acceptance for fastener density and Approved attachment patterns.

Deck: Existing gypsum

Tradename: Insuldeck Loc-Nail Assembled Base Sheet Fastener

Compatible Plate(s): N/A

Application: See specific Roof Assembly Product Control Notice of Acceptance for fastener density and Approved attachment patterns.

Deck: Cementitious Wood Fiber.

4. LIMITATIONS

- 1 Refer to Roof Assemblies Notices of Acceptance for use, density and attachment patterns.
- 4 ES Products base ply fasteners shall not be used to attach membrane to existing lightweight insulating concrete, gypsum or cementitious wood fiber decks unless specifically tested on the deck in compliance with Miami-Dade County Testing Application Standard TAS 105(A).
- 5 Fasteners shall be installed in strict compliance with manufacturer's installation instructions, and in compliance with the requirements set forth in Miami-Dade County Roofing Application Standard RAS 111.
- 6 Care shall be taken not to puncture or tear the base sheet or insulation facer during fastener installation. Application recommendations are noted in Miami-Dade County Roofing Application Standard RAS 117.
- 7 ES Products fasteners are a component part of Miami-Dade Approved Roof System Assembly. These products are approved for use only with those roof system assemblies approved for use with the components under the South Florida Building Code.

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NOTICE OF ACCEPTANCE:STANDARD CONDITIONS

1. Renewal of this Acceptance (approval) shall be considered after a renewal application has been filed and the original submitted documents, including test-supporting data, engineering documents, are no older than eight (8) years.
2. Any and all approved products shall be permanently labeled with the manufacturer's name, city, state, and the following statement: "Miami-Dade County Product Control Approval", or as specifically stated in the specific conditions of this Acceptance.
3. Renewals of Acceptance will not be considered if:
 - a. There has been a change in the South Florida Building Code affecting the evaluation of this product and the product is not in compliance with the code changes.
 - b. The product is no longer the same product (identical) as the one originally approved.
 - c. If the Acceptance holder has not complied with all the requirements of this acceptance, including the correct installation of the product.
 - d. The engineer who originally prepared, signed and sealed the required documentation initially submitted, is no longer practicing the engineering profession.
4. Any revision or change in the materials, use, and/or manufacture of the product or process shall automatically be cause for termination of this Acceptance, unless prior written approval has been requested (through the filing of a revision application with appropriate fee) and granted by this office.
5. Any of the following shall also be grounds for removal of this Acceptance:
 - a. Unsatisfactory performance of this product or process.
 - b. Misuse of this Acceptance as an endorsement of any product, for sales, advertising or any other purposes.
6. The Notice of Acceptance number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the Notice of Acceptance is displayed, then it shall be done in its entirety.
7. A copy of this Acceptance as well as approved drawings and other documents, where it applies, shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at all time. The engineer need not reseal the copies.
8. Failure to comply with any section of this Acceptance shall be cause for termination and removal of Acceptance.
9. This Notice of Acceptance consists of pages 1 through 8 and this last page 9

END OF THIS ACCEPTANCE



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