

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

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

### **NOTICE OF ACCEPTANCE (NOA)**

Cooley, Inc. 50 Esten Avenue Pawtucket, RI 02860

#### **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:** Cooley Standard Roofing, Cooley C3, C3FB and C3Plus PVC Single Ply Roof Systems over Concrete 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.

Sterrain

This NOA renews NOA# 16-0322.05 and consists of pages 1 through 17. The submitted documentation was reviewed by Alex Tigera.



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### **ROOFING SYSTEM APPROVAL**

**Category:** Roofing **Sub-Category:** Single Ply PVC **Material:** Deck Type: Concrete **Maximum** Design Pressure -60 psf

### TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

D 1 4	D'	Test	Product
<b>Product</b>	<b>Dimensions</b>	<b>Specification</b>	<b>Description</b>
Cooley Standard Roofing	Various	ASTM D 4434	A single ply non-elvaloy PVC roof covering membrane.
Cooley Standard Perimeter Sheet 50 – 80 mil	Various	ASTM D 4434	A single ply non-elvaloy membrane perimeter sheet
Cooley C-3 40-100 Mil Membrane	78" x 108" 702 sf. roll	ASTMD 4434	40-100 mil thermoplastic alloy membrane field membrane.
Cooley C-3 40-100 Mil Perimeter Sheet	39" x 108' 351 sf. roll	ASTM D 4434	40-100 mil thermoplastic alloy membrane perimeter sheet.
Cooley C-3 Plus 40-100 Mil Membrane	78" x 100' 650 ft.² roll	ASTMD 4434	40-100 mil thermoplastic alloy membrane field membrane.
Cooley C-3 Plus 40-100 Mil Perimeter Sheet	39" x 100' 325 ft. <sup>2</sup> roll	ASTMD 4434	40-100 mil thermoplastic alloy membrane perimeter sheet.
Cooley C-3 Reinforced Flashing Membrane	6", 8", 12", 18" & 24" variable length rolls	ASTM D 4434	40-100 mil thermoplastic flashing membrane.
Cooley Standard Roofing Reinforced Flashing	Various	ASTM D 4434	Single Ply PVC flashing material
Cooley Standard Roofing Coated Metal	Various	ASTM D 4434	Single Ply PVC membrane laminated 24 Ga. galvanized steel.
Cooley Standard Roofing RAM Flashing	Various	ASTM D 4434	Single Ply PVC membrane flashing material
Cooley Standard Roofing RAM Universal Corners	Various	ASTM D 4434	Single ply PVC membrane
Cooley C-3 Fleece Backed Membrane	Various	ASTM D 4434	Thermoplastic fleece back membrane
Cooley C-3 Coated Metal	4' x 8' 4' x 10' sheets	US Commercial Standard CS- 245-62	C-3 membrane laminated 24 Ga. galvanized steel.
Cooley C-3 Fleece Back RAM	76" x 100" 39" x 100" 325 ft. <sup>2</sup> roll	ASTM D 4434	Thermoplastic fleece back membrane. Adhered applications.



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# TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT: TABLE 1

<u>Product</u>	<b>Dimensions</b>	Test Specification	Product <u>Description</u>
Cooley C-3 Fleece Back RAM Flashing	12" x 100' 100 ft. <sup>2</sup> roll 24" x 100' 200 ft. <sup>2</sup> roll	ASTM D 4434	Thermoplastic fleece back membrane flashing material.
Cooley C-3 Fleece Back RAM Universal Corners	14" x 14"	ASTM D 4434	Thermoplastic fleece back membrane. Adhered applications.
Cooley C3 Bonding Adhesive	5 gallon pails	proprietary	Solvent based adhesive for fully adhered RAM systems and C3PLUS roofing membrane.
Cooley WB Bonding Adhesive	N/A	proprietary	Water Based adhesive for fully adhered C3PLUS Roofing Membrane.
Cooley Coolgrip Walkway	0.072" x 36" x 60'	proprietary	Walkway pad (roll configuration)
Cooley Coolgrip Heavy Duty Walkway	0.150" x 36" x 60'	proprietary	Walkway pad (roll configuration)

# **APPROVED INSULATIONS:**

#### TABLE 2

<b>Product Name</b>	<b>Product Description</b>	<u>Manufacturer</u> (With Current NOA)
ACFoam II, III	Isocyanurate Insulation	Atlas Roofing Corp.
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Building Products Company, LLC.
EnergyGuard Perlite Roof Insulation	Perlite insulation board.	GAF Materials Corp.
DensDeck, DensDeck Prime	Silicon treated gypsum	Georgia Pacific Gypsum, LLC.
H-Shield	Isocyanurate Insulation	Hunter Panels
ENRGY 3, ENERGY 3 25 PSI, ValuTherm	Isocyanurate Insulation	Johns Manville
Fesco Foam, DuraFoam	Isocyanurate Insulation with perlite facer	Johns Manville
Fesco Board	Rigid perlite roof insulation board.	Johns Manville
Ultra-Max, Multi-Max FA-3, Thermaroof Composite-3	Polyisocyanurate foam insulation	Rmax Operating, LLC
Structodeck High Density Fiberboard Insulation	High Density Wood Fiber insulation board.	Blue Ridge Fiberboard



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# **APPROVED FASTENERS:**

TABLE 3

Fastener Number	<u>Product</u> <u>Name</u>	<u>Product</u> <u>Description</u>	<b>Dimensions</b>	<u>Manufacturer</u> (With Current NOA)
1.	#12 Standard Roofgrip &, #14 Roofgrip	Insulation and membrane fastener	Various	OMG, Inc
2.	ASAP Roofgrip Pre- Assembled System	Insulation and membrane fastener consisting of a steel seam plate and screw.	23/8" plate & #15 Screw	OMG, Inc
3.	OMG Plastic Plate	Plastic plates for fasteners.	3" round	OMG, Inc
4.	Dekfast DF-#14-PH3	Insulation and membrane fastener	Various	SFS Group USA, Inc.
5.	Dekfast PLT-H-2-7/8	Galvalume AZ50 stress plate	2 <sup>7</sup> / <sub>8</sub> " x 3 <sup>1</sup> / <sub>4</sub> "	SFS Group USA, Inc.
6.	Dekfast DF-#15-PH3	Insulation and membrane fastener	Various	SFS Group USA, Inc.
7.	isofast PLT-R-2-3/8-BL	Square or oblong Galvalume steel plates for use with Dekfast DF-#15-PH3 fasteners	Various	SFS Group USA, Inc.
8.	#15 Roof grip	Insulation and membrane fastener	#15	OMG, Inc
9.	OMG 2-3/8" Barbed XHD Plate	Galvalume stress plate	2-3/8"	OMG, nc
10.	Trufast #15 EHD Fasteners	Insulation and membrane fastener	Various	Altenloh, Brinck & Co.
11.	Trufast 2.4"Barbed Metal Seam Plate	Galvalume stress plate	2.4"	Altenloh, Brinck & Co.
12.	Maxload Fasteners	Insulation and membrane fastener	Various	OMG, Inc
13.	OMG 2-3/4" Super XHD Barbed Plate	Galvalume stress plate	2.75"	OMG, Inc
14.	OMG Super XHD	Insulation and membrane fastener	Various	OMG, Inc
15.	Trufast 3" Metal Insulation Plate	Galvalume stress plate	Various	OMG, Inc
16.	#12 Standard Stainless Steel	Insulation and membrane fastener	Various	OMG, Inc
17.	Strap Toggle Fastener	Insulation and membrane fastener	Various	OMG, Inc
18.	OMG Heavy Duty	Insulation and membrane fastener	Various	OMG, Inc
19.	AccuTrac Fastening System	Insulation and membrane fastener and plate	Various	OMG, Inc



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20.	Recessed Metal Plate	Insulation and membrane fastener and plate	Various	OMG, Inc
21.	ASAP Roofgrip Preassembled System	Insulation and membrane system	Various	OMG, Inc
22.	#12 Standard Hex Head	Insulation and membrane fastener	Various	OMG, Inc.
23.	Dekfast DF-#12-PH3	Insulation and membrane fastener	Various	SFS Group USA, Inc.
24.	Dekfast DF-#12-HW 1/4	Insulation and membrane fastener	Various	SFS Group USA, Inc.
25.	Dekfast PLT-P-R-3	Insulation and membrane Plate	3"	SFS Group USA, Inc.
26.	Dekfast PLT-R-3	Insulation and membrane Plate	3"	SFS Group USA, Inc.
27.	isofast PLT-S-2-3/4x2-3/4	Insulation Plate	Various	SFS Group USA, Inc.
28.	Dekfast DF-#12-PH3-P3	Pre-assembled	Various	SFS Group USA, Inc.
29.	Dekfast DF-#12-PH3-G3	Pre-assembled	Various	SFS Group USA, Inc.
30.	Dekfast DF-#14-PH3-P3	Pre-assembled	Various	SFS Group USA, Inc.
31.	Trufast #12 DP Fastener	Insulation and membrane fastener	Various	Altenloh, Brinck & Co.
32.	Trufast #12 DP-H Fastener	Insulation and membrane fastener	Various	Altenloh, Brinck & Co.
33.	Trufast #14 HD Fastener	Insulation and membrane fastener	Various	Altenloh, Brinck & Co.
34.	Trufast 3" Metal Insulation Plate	Stress Plate	3"	Altenloh, Brinck & Co.
35.	CD-10	Insulation and membrane fastener	Various	OMG, Inc
36.	Fluted Nail	Insulation and membrane fastener	Various	OMG, Inc



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# **EVIDENCE SUBMITTED:**

<b>Test Agency/Identifier</b>	<b>Report</b>	<u>Name</u>	<b>Date</b>
Factory Mutual Corp.	3025170	4470	02/07/06
•	3021133	4470	02/07/06
	3017177	4470	01/09/04
	3047298	4470	10/08/15
	J.I. 0X2A9.AM	4470	06/26/93
	J.I. 3W1A1.AM	4470	03/29/93
	J.I. 1V1A8.AM	4470	04/21/92
	J.I. 1W1A9.AM	4470	09/11/93
	J.I. 1X3A6.AM	4470	10/03/93
	J.I. 1W9A2.AM	4470	06/15/93
	J.I. 1W2A0.AM	4470	08/24/93
	J.I. 1T2A6.AM	4470	02/22/93
	J.I. 3W3A4.AM	4470	03/26/93
	J.I. 0X8A9.AM	4470	06/25/93
	J.I. 1X6A5.AM	4470	10/12/93
	J.I. 2W5A6.AM	4470	06/01/93
Underwriters Laboratories, Inc.	File R9834 (N)	UL 790	04/06/93
PRI Construction Materials Technologies, LLC	1702T0001	ASTM D 4434	2/23/21
Momentum Technologies, Inc.	CX23G3A	ASTM D 4434	7/15/15



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#### APPROVED ASSEMBLIES

**Membrane Type:** Single Ply, PVC

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(1): One or more layers of insulation adhered with approved asphalt or adhesive; membrane fully

adhered.

#### All General and System Limitations apply.

One or more layers of the following insulations:

Base Insulation LayerInsulation Fasteners<br/>(Table 3)Fastener<br/>Density/ft²ACFoam II, Ultra-Max FA-3, ENRGY 3, ENRGY 3 25 PSI, ISO-95+ GL

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup> or Cooley C3 Bonding Adhesive at 1 gal./sq. or with ¾" to 1" wide beads of Insta-Stik Adhesive, 12" o.c. (primer not required for use of Insta-Stik). 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 used as a top layer shall be placed with the Polyisocyanurate side facing down.

**Vapor Retarder:** (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer

of insulation.

**Fire Barrier:** (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer

of insulation.

**Membrane:** C3 Fleece Back Roof Cover fully adhered to the insulation with Cooley C3 Bonding Adhesive

applied at the rate of 1 gal./sq., or approved mopping asphalt applied at the rate of 25 lbs./sq.

N/A

**Maximum Design** 

Minimum 1.4" thick

**Pressure:** 

-45 psf; (See General Limitation #9.)



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N/A

Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type A(2): One or more layers of insulation adhered with approved asphalt or adhesive; membrane fully

adhered.

#### All General and System Limitations apply.

One or more layers of the following insulations:

Base Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

ACFoam II, ACFoam III, Multi-Max FA-3, ENRGY 3 25 PSI, ISO 95+ GL, Thermaroof Composite-3, Fesco

Foam, DuraBoard Minimum 2" thick

N/A N/A

Note: Composite Boards utilizing Perlite must be applied Perlite side down. Subsequent insulation layer may be adhered to the first. Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft<sup>2</sup> or Cooley C3 Bonding Adhesive at 1 gal./sq. or with ¾" to 1" wide beads of Insta-Stik Adhesive, 12" o.c. (primer not required for use of Insta-Stik). 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 used as a top layer shall be placed with the Polyisocyanurate side facing down.

**Vapor Retarder:** (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer

of insulation.

**Fire Barrier:** (Optional) Minimum 1/4" Dens Deck secured to the deck with the insulation.

**Membrane:** C3 Plus Membrane fully adhered to the insulation with Cooley C3 Bonding Adhesive applied at

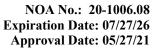
the rate of 0.83 gal./sq. on both the membrane and the substrate for a total of 1.67 gal./sq. and a heat welded seam minimum 1½" wide at the laps or Cooley WB Bonding Adhesive applied at

the rate of 0.67 gal/sq to the substrate.

**Maximum Design** 

Pressure:

-45 psf; (See General Limitation #9.)



MIAMI-DADE COUNTY
APPROVED

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Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

**System Type C(1):** All layers of insulation simultaneously attached; C3PLUS membrane fully adhered.

All General and System Limitations apply.

<b>Base and Top Insulation Layer</b>	<b>Insulation Fasteners</b>	<b>Fastener</b>
	<u>(Table 3)</u>	Density/ft <sup>2</sup>
ACFoam-III, ACFoam-III		
Minimum 2" thick	5, 18, 20, 22, 23, 6, 25, 26, 27, 28, 29, 30, 31, 32, 33,	1: 4 ft <sup>2</sup>
	34, 35, 36	
ENRGY-3, ENRGY-3 25 PSI, ValuTherm		
Minimum 2" thick	5, 20, 8, 15, 23, 6, 25, 26, 27, 28, 29, 30	1: 4 ft <sup>2</sup>
ISO 95+ GL		
Minimum 2" thick	8, 15, 18, 20, 22, 35, 36 Steel Plate only for OMG	1: 4 ft <sup>2</sup>
	Fasteners	

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

**Vapor Retarder:** (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer

of insulation.

**Fire Barrier:** (Optional) Minimum 1/4" Dens Deck secured to the deck with the insulation.

Membrane: C3 Plus Membrane fully adhered to the insulation with Cooley C3 Bonding Adhesive applied at

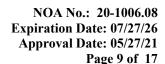
the rate of 0.83 gal./sq. on both the membrane and the substrate for a total of 1.67 gal./sq., and a heat welded seam minimum 1½" wide at the laps or Cooley WB Bonding Adhesive applied at the

rate of 0.67 gal/sq to the substrate.

**Maximum Design** 

**Pressure:** 

-45 psf; (See General Limitation #9.)





Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type C(2): All layers of insulation simultaneously attached; membrane fully adhered

All General and System Limitations apply.

Base Insulation Layer (Optional)	Insulation Fasteners	<u>Fastener</u>
	(Table 3)	Density/ft <sup>2</sup>
ACFoam II, Multi-Max FA-3, ENRGY-3, ENRGY-3 25 P	PSI, ISO 95 + GL	
Minimum 1.4" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer</u>	<b>Insulation Fasteners</b>	<u>Fastener</u>
	<u>(Table 3)</u>	Density/ft <sup>2</sup>
ISO 95 + GL, ENRGY-3, ENRGY-3 25 PSI		
Minimum 1.4" thick	1 or 4	1:2 ft <sup>2</sup>
ACFoam II, Multi-Max FA-3		
Minimum 1.5" thick	1 or 4	1:2 ft <sup>2</sup>

**Vapor Retarder:** (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer

of insulation.

**Fire Barrier:** Minimum ½" or Dens Deck secured to the deck with the insulation.

**Membrane:** C3 Fleece Back Roof Cover fully adhered to the insulation with Cooley C3 Bonding Adhesive

applied at the rate of 1 gal./sq., or approved mopping asphalt applied at the rate of 25 lbs./sq. Optional mechanical attachment of membrane using fasteners and plates noted in System Type

D spaced 36" o.c. is permitted.

**Maximum Design** 

**Pressure:** 

-45 psf; (See General Limitation #9.)



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Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type D(1): Membrane mechanically attached over preliminary fastened insulation; membrane fully

adhered.

All General and System Limitations apply.

Base or Top Insulation LayerInsulation FastenersFastener(Table 3)Density/ft²

EnergyGuard Perlite, Fesco Board, EnergyGuard HD Polyiso Insulation Structodek High Density Fiberboard Insulation, ENRGY-3, ENRGY-3 25 PSI, Ultra-Max, Thermaroof Composite-3, ACFoam II, ISO 95+ GL, Fesco Foam

Minimum 1.4" thick N/A N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer

of insulation.

Fire Barrier: Minimum ½" or Dens Deck secured to the deck with the insulation.

Membrane: C3 Membrane, Standard Roofing or C3 Fleece Backed Membrane attached through the

preliminary attached insulation as specified below.

**Fastening #1:** Roof cover is rolled over the insulation and its 2" laps are sealed. Membrane is mechanically

attached using ASAP Roofgrip Pre-Assembled System with CD-10 or OMG Heavy Duty spaced 6" o.c. in rows 8 ft. apart or 12" o.c. in rows 4 ft. apart. Fastener rows are stripped in with 6" wide strips of membrane or 6" diameter membrane caps, heat or solvent welded.

**Fastening #2:** Membrane is mechanically attached using ASAP Roofgrip Pre-Assembled System with CD-10

or OMG Heavy Duty spaced 18" o.c. through 3" wide laps spaced 48" apart.

**Fastening #3:** Roof cover is rolled over the insulation and its 2" laps are sealed. Membrane is mechanically

attached using the Dekfast #14 or #15HS screws, OMG Heavy Duty spaced 18" o.c. in rows

spaced 48" apart. 6" diameter membrane caps are placed over the fastener/plate head.

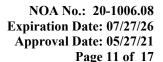
Fastening #4: 78" wide membrane is mechanically attached using ASAP Roofgrip Pre-Assembled System

with CD-10 or OMG Heavy Duty spaced 18" o.c. through 6" wide laps spaced 72" apart.

**Maximum Design** 

Pressure:

-45 psf; (See General Limitation #7.)





Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type D(2): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply.

**Base or Top Insulation Layer** 

**Insulation Fasteners** 

**Fastener** 

(Table 3)

Density/ft<sup>2</sup>

EnergyGuard Perlite, FescoBoard, Structodeck High Density Fiberboard Roof Insulation, ENRGY-3, ENRGY-3 25 PSI, Ultra-Max, Thermaroof Composite-3, ACFoam II, ISO 95+ GL, Fesco Foam Minimum 1" thick N/A N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer

of insulation.

Fire Barrier: (Optional) Minimum 1/4" Dens Deck secured to the deck with the insulation.

**Membrane:** C3 Plus Membrane attached through the preliminary attached

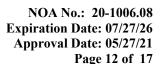
insulation as specified below. Membrane is mechanically attached using OMG Heavy Duty or CD-10 Fasteners and OMG 2-3/4" Super XHD Barbed Plate; Trufast 2.4" Barbed Metal Seam Plates and #15 Roofgrip fasteners; spaced 6" o.c. through 5" wide laps spaced in rows 73" apart.

The 5" wide laps are then sealed with a minimum 1-1/2" wide heat seal

**Maximum Design** 

**Pressure:** 

-60 psf; (See General Limitation #7.)





Deck Type 3I: Concrete Decks, Insulated

Deck Description: 2500 psi structural concrete.

System Type D(3): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply.

Base or Top Insulation Layer Insulation Fasteners (Table 3)

Fastener Density/ft<sup>2</sup>

EnergyGuard Perlite, FescoBoard, Structodeck High Density Fiberboard Roof Insulation, ENRGY-3, ENRGY-3 25 PSI, Ultra-Max, Thermaroof Composite-3, ACFoam II, ISO 95+ GL, Fesco Foam Minimum 1" thick

N/A

N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer

of insulation.

Fire Barrier: (Optional) Minimum 1/4" Dens Deck secured to the deck with the insulation.

**Membrane:** C3 Plus Membrane attached through the preliminary attached insulation as specified below.

**Fastening #1:** Membrane is mechanically attached using OMG Heavy Duty or CD-10 Fasteners and Omg 2-

3/4" Super XHD Barbed; OMG Trufast 2.4" Barbed Metal Seam Plates and #15 Roofgrip fasteners; spaced 12" o.c. through 5" wide laps spaced in rows 73" apart. The 5" wide laps are

then sealed with a minimum 1-1/2" wide heat seal

**Fastening #2:** Membrane is applied over insulation and its 2" laps are sealed. The membrane is then

mechanically attached to deck using; ASAP Roofgrip Pre-Assembled System and CD-10 Spikes and Dekfast #14 screws spaced 6" o.c. in rows 8' apart. A 6" wide strip of membrane is then heat welded over the fastener rows or a 6" dia. membrane cap may be heat welded over each

fastener and plate.

**Fastening #3:** Membrane is mechanically attached using ASAP Roofgrip Pre-Assembled System and CD-10

Spikes and Dekfast DF-#14-PH3 screws spaced 18" o.c. through 4½" wide laps spaced in rows

48" apart. The  $4\frac{1}{2}$ " wide laps are then sealed with a minimum  $1\frac{1}{2}$ " wide heat seal.

**Fastening #4:** Membrane is mechanically attached using ASAP Roofgrip Pre-Assembled System and CD-10

Spikes and Dekfast DF-#14-PH3 screws spaced 6" o.c. through 6" wide laps spaced in rows

72" apart. The 6" wide laps are then sealed with a minimum 1½" wide heat seal.

Maximum design

**Pressure:** -45 psf; (See General Limitation #7.)



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Single Ply, PVC **Membrane Type:** 

Deck Type 3I: Concrete Decks, Insulated **Deck Description:** 2500 psi structural concrete.

Multilayer Insulation System, Membrane mechanically attached over preliminary fastened System Type D(4):

insulation.

All General and System Limitations apply.

**Base Insulation Layer Insulation Fasteners** Fastener Density/ft<sup>2</sup> (Table 3)

One or more layers of the Base Layer insulation covered by one layer of the insulation listed as Top Layer.

**Insulation Fasteners Base or Top Insulation Layer** Fastener Density/ft<sup>2</sup> (Table 3)

ISO 95+GL

Minimum 1" thick N/A N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer

of insulation.

Minimum <sup>1</sup>/<sub>4</sub>" Dens Deck secured to the deck with the insulation. Fire Barrier:

Membrane: C3 Plus Membrane attached through the preliminary attached insulation as specified below.

**Fastening #1:** Membrane is applied over insulation and its 2" laps are sealed. The membrane is then

> mechanically attached to deck using; ASAP Roofgrip Pre-Assembled System and CD-10 Spikes or Dekfast 2" Tri-Lock Nylon plates and Dekfast #14 screws spaced 6" o.c. in rows 8' apart. A 6" wide strip of membrane is then heat welded over the fastener rows or a 6" dia.

membrane cap may be heat welded over each fastener and plate.

Fastening #2: Membrane is mechanically attached using ASAP Roofgrip Pre-Assembled System and CD-10

> Spikes or Dekfast 2" Tri-Lock Nylon plates and Dekfast #14 screws spaced 18" o.c. through  $4\frac{1}{2}$ " wide laps spaced in rows 48" apart. The  $4\frac{1}{2}$ " wide laps are then sealed with a minimum  $1\frac{1}{2}$ "

wide heat seal.

**Fastening #3:** Membrane is mechanically attached using ASAP Roofgrip Pre-Assembled System and CD-10

> Spikes or Dekfast 2" Tri-Lock Nylon plates and Dekfast #14 screws spaced 6" o.c. through 6" wide laps spaced in rows 72" apart. The 6" wide laps are then sealed with a minimum 1½" wide

heat seal.

Maximum design

**Pressure:** -45 psf; (See General Limitation #7.)



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Deck Type 3I: Concrete Decks, Insulated **Deck Description:** 2500 psi structural concrete. **System Type E:** Membrane attached to deck.

All General and System Limitations apply.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over the optional

fire barrier.

Fire Barrier: (Optional) Minimum ½" or Dens Deck secured to the deck with 4 approved fasteners per

board.

Membrane: C3 Membrane, Standard Roofing or C3 Fleece Backed Membrane attached through the

optional preliminary attached fire barrier as specified below.

Fastening #1: Roof cover is rolled over the insulation and its 2" laps are sealed. Membrane is mechanically

> attached using ASAP Roofgrip Pre-Assembled System with CD-10 or OMG Heavy Duty spaced 6" o.c. in rows 8 ft. apart or 12" o.c. in rows 4 ft. apart. Fastener rows are stripped in with 6" wide strips of membrane or 6" diameter membrane caps, heat or solvent welded.

Fastening #2: Membrane is mechanically attached using ASAP Roofgrip Pre-Assembled System with CD-

10 or OMG Heavy Duty or spaced 18" o.c. through 3" wide laps spaced 48" apart.

**Fastening #3:** Roof cover is rolled over the insulation and its 2" laps are sealed. Membrane is mechanically

attached using Dekfast DF-#14-PH3 or Dekfast DF-#15-PH3 screws, OMG Heavy Duty spaced

18" o.c. in rows spaced 48" apart. 6" diameter membrane caps are placed over the

fastener/plate head.

78" wide membrane is mechanically attached using ASAP Roofgrip Pre-Assembled System Fastening #4

with CD-10 or OMG Heavy Duty spaced 18" o.c. through 6" wide laps spaced 72" apart.

Maximum design

Pressure: -45 psf; (See General Limitation #7.)



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Deck Type 31: Concrete Decks, Insulated
Deck Description: 2500 psi structural concrete.

System Type F: Membrane attached to deck.

All General and System Limitations apply.

**Fire Barrier:** (Optional) Minimum ½" or Dens Deck secured to the deck with 4 approved fasteners per board.

Note: If Optional Barrier is installed; Barrier fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm

compliance with the wind load requirements set forth in the applicable Building Code and

this assembly's Maximum Design Pressure rating.

**Membrane:** C3 Fleece Back Roof Cover fully adhered to the insulation with Cooley C3 Bonding Adhesive

applied at the rate of 1 gal./sq., or approved mopping asphalt applied at the rate of 25 lbs./sq. Optional mechanical attachment of membrane using fasteners and plates noted in System Type

D spaced 36" o.c. is permitted.

Maximum design

**Pressure:** 

-45 psf; (See General Limitation #9.)



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#### **CONCRETE DECK SYSTEM LIMITATIONS:**

If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117 and/or RAS 137, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.

#### **GENERAL LIMITATIONS:**

- Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 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
- All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
- 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 side lap 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.
- 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.
- Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, 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.
- 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 and/or RAS 137. 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.)
- All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
- 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.)
- 10. 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.

# END OF THIS ACCEPTANCE



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