



**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)

**Cooley Roofing Systems, 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 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: Cooley PVC Single Ply Roof Systems over Gypsum Decks

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

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

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

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

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

This NOA renews NOA #97-1119.11 and consists of pages 1 through 7.
The submitted documentation was reviewed by Frank Zuloaga, RRC



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Expiration Date: 07/15/09
Approval Date: 07/15/04
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ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply
Material: PVC
Deck Type: Gypsum
Maximum Design Pressure -45 psf
Fire Classification: See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

| <u>Product</u> | <u>Dimensions</u> | <u>Test Specification</u> | <u>Product Description</u> |
|--|--|----------------------------------|---|
| 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 40-Roofing Membrane | 52" x 108' | ASTM D 4434 | 40-100 mil thermoplastic alloy membrane field membrane. |
| Cooley C-3 Reinforced Flashing Membrane | 6", 8", 12", 18" & 24" variable length rolls | ASTM D 4434 | 40-100 mil thermoplastic flashing membrane. |
| Cooley C-3 Unreinforced 55 Mil Membrane Back RAM | 24" x 30' LF 60 sf. roll | ASTM D 4434 | 55 mil unreinforced flashing 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 Universal Corners | 76" x 90" 570 sf. roll | ASTM D 4434 | Thermoplastic fleece back membrane. Adhered applications. |
| Cooley C-3 Fleece Back RAM | 39" x 108' 351 sf. roll | ASTM D 4434 | Thermoplastic fleece back membrane. Adhered applications. |
| Cooley C-3 Fleece Back RAM Flashing | 12' x 108' 108 sf. roll 24" x 108' 216 sf. roll | ASTM D 4434 | Thermoplastic fleece back membrane flashing material. |
| Cooley C-3 Bonding Adhesive | 5 gallon pails | proprietary | Adhesive for fully adhered RAM systems. |
| Cooley Aluminum Termination Bar | 1/8" x 1" x 10' | TAS 114 | Flat termination bar. |
| Cooley Tuff Track 250 Walkway | 1/4" x 30" x 40' | | Walkway pad (roll configuration) |
| Cooley Tuff Track 500 Walkway | 1/2" x 30 x 36" | | Walkway pad (single pad) |
| C3 Bonding Adhesive | N/A | | Contact adhesive for membrane flashing. |



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APPROVED INSULATIONS:

TABLE 2

| Product Name | Product Description | Manufacturer (With Current NOA) |
|---|--|--|
| Pyrox, White Line | Isocyanurate Insulation | Apache Products Co. |
| ACFoam II, III | Isocyanurate Insulation | Atlas Roofing Corp. |
| Conperl | Perlite insulation board. | Conglas |
| Hytherm, Hytherm AP | Isocyanurate Insulation | Dow Chemical |
| Styrofoam | Extruded Polystyrene. | Dow Chemical |
| ISO 95+, ISO 95+ GL | Polyisocyanurate foam insulation | Firestone |
| EnergyGuard High Density Fiberboard | High density wood fiberboard insulation. | GAF Materials Corp. |
| EnergyGuard Perlite | Perlite insulation board. | GAF Materials Corp. |
| Armor Board High Density | Wood fiber insulation board. | Honeywell International |
| Dens Deck, Dens Deck Prime | Silicon treated gypsum | G-P Products |
| Sturdi-Top, Roof Insulation Board | Wood fiber insulation board. | G-P Products |
| High Density Wood Fiberboard | High Density Wood Fiber insulation board. | Generic |
| Perlite Insulation Board | Perlite Insulation | Generic |
| Type X Gypsum, Gypsum | Gypsum Wallboard | Generic |
| EPS or XPS Insulation | Expanded or Extruded Polystyrene. | Generic |
| Ultra/M-II | Isocyanurate Insulation | Homasote Co. |
| H-Shield | Isocyanurate Insulation | Hunter Panels |
| ENRGY 2, ENERGY 3, PSI-25 UltraGuard | Isocyanurate Insulation | Johns Manville |
| Fesco Foam, DuraFoam | Isocyanurate Insulation with perlite facer | Johns Manville |
| Fesco Board | Rigid perlite roof insulation board. | Johns Manville |
| Strataguard | Gypsum Wallboard | Owens Corning |
| Multi-Max, Multi-Max FA, Thermarroof Plus | Polyisocyanurate foam insulation | Rmax, Inc. |
| Fiberbase HD1, HD6 | Asphalt coated wood fiber insulation | Temple Inland Forest Products Corp. |
| Structodeck | High Density Wood Fiber insulation board. | Wood Fiber Industries |



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APPROVED FASTENERS:

TABLE 3

| Fastener Number | Product Name | Product Description | Dimensions | Manufacturer (With Current NOA) |
|------------------------|-------------------------------|--|-------------------|--|
| 1. | NTB Magnum | Fastener for cementitious and gypsum decks | Various | Olympic Mfg. Group |
| 2. | NTB Plate | Round Galvalume AZ55 stress plate | 3" round | Olympic Mfg. Group |
| 3. | NTB Metal Barbed Stress Plate | Round Galvalume AZ55 stress plate | 2" round | Olympic Mfg. Group |
| 4. | NTB Plastic Plate | Plastic plates for NTB 2" head fasteners. | 3" round | Olympic Mfg. Group |

EVIDENCE SUBMITTED:

| <u>Test Agency/Identifier</u> | <u>Report</u> | <u>Name</u> | <u>Date</u> |
|---------------------------------|----------------|---|-------------|
| Factory Mutual Corp. | J.I. 0X2A9.AM | Class 1 Concrete deck fully adhered. | 06/26/93 |
| | J.I. 3W1A1.AM | Class 1 Mechanically attached. | 03/29/93 |
| | J.I. 1X3A6.AM | C3 Fleece Back fully adhered Class I steel, concrete. | 10/03/93 |
| | J.I. 1W9A2.AM | C3 Fleece Back fully adhered Class I lightweight concrete. | 06/15/93 |
| | J.I. 1W2A0.AM | C3 Fleece Back fully adhered Class I lightweight concrete. | 08/24/93 |
| | J.I. 1T2A6.AM | Olympic GTL, Lite deck NTB Magnum, Iron LOK Strap Toggle fasteners Class I. | 02/22/93 |
| | J.I. 1V1A8.AM | C3 Fleece back fully adhered Class I Steel & concrete. | 04/21/92 |
| | J.I. 0X8A9.AM | C3 Dual attachment Class I steel, wood, concrete. | 06/25/93 |
| | J.I. 1X6A5.AM | Solweld plate mechanically fastened Class I steel, concrete. | 10/12/93 |
| | J.I. 2W5A6.AM | C3 Fleece back fully adhered Class I steel, concrete. | 06/01/93 |
| Underwriters Laboratories, Inc. | File R9834 (N) | Fire Classification | 04/06/93 |



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APPROVED ASSEMBLIES

Deck Type 6I: Poured Gypsum, Insulated
Deck Description: Poured Gypsum
System Type A: Anchor sheet mechanically attached, optional insulation adhered, membrane adhered.

All General and System Limitations apply.

One or more layers of the following insulations:

| Base Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|--|---|--|
| ACFoam II, Multi-Max FA, ENRGY-2, ENRGY-3, PSI-25, ISO-95+, ISO + GL, Hy-Therm AP, Pyrox Minimum 1.4" thick | N/A | N/A |
| Top Insulation Layer (Optional) | Insulation Fasteners (Table 3) | Fastener Density/ft² |
| High Density Fiberboard, FM-90 High Density, Armor Board Regular, Esgard, EnergyGuard Fiberboard, Huebert Fiberboard, Kop-R Wood Fiber Minimum 1/2" thick | N/A | N/A |

Note: 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 ft² or Cooley Bonding Adhesive at 1 gal./sq. 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.

Anchor Sheet: One ply of GAFGLAS #75, GAFGLAS Stratavent Eliminator Nailable Base Sheet, Johns Manville Ventsulation or Johns Manville PermaPly 28 secured to the deck with Olympic NTB Magnum fasteners at 1 per 2 sq. ft.

Membrane: C3 Fleece Back Roof Cover fully adhered to the anchor sheet or insulation with Cooley Bonding Adhesive (C-1006) applied at the rate of 1 gal./sq., or approved mopping asphalt applied at the rate of 25 lbs./sq.

Maximum Design Pressure: -45 psf; (See General Limitation #9.)



Deck Type 5I: Poured Gypsum, Insulated

Deck Description: Poured Gypsum

System Type C: All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply.

| Base Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ACFoam II, Multi-Max FA, ENRGY-2, ENRGY-3, PSI-25, ISO-95+, ISO + GL, Hy-Therm AP, Pyrox 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.

| Top Insulation Layer | Insulation Fasteners (Table 3) | Fastener Density/ft² |
|---|---|--|
| ISO 95 +, ISO 95 + GL, ENRGY-2, ENRGY-3, PSI-25 Minimum 1.4" thick | 1 | 1:2 ft ² |
| ACFoam II, Multi-Max FA Minimum 1.5" thick | 1 | 1:2 ft ² |

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

Barrier: (Optional) 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 Bonding Adhesive (C-1006) applied at the rate of 1 gal./sq., or approved mopping asphalt applied at the rate of 25 lbs./sq.

Maximum Design Pressure: -45 psf; (See General Limitation #9.)



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 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.
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. **(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.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9B-72 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



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