High Velocity Hurricane Zone Uniform Roofing Permit Application Form
MIAMI-DADE COUNTY BUILDING DEPARTMENT ELECTRONIC APPLICATION

Section A (General Information)

Master Permit No.

Process No.

Contractor's Name: EVANS ROOFING

Job Address: 5226 NORTH BAY ROAD MIAMI FL 33140

Roof Category

- ☒ Low Slope
- ☐ Asphaltic Shingles
- ☒ Prescriptive BUR RAS 150
- ☐ Mechanically Fastened Tile
- ☐ Metal Panel/Shingles
- ☐ Other
- ☐ Mortar/Adhesive Set Tile
- ☐ Wood Shingles/Shakes

Roof Type

- ☐ New Roof
- ☒ Re-Roofing
- ☐ Recovering
- ☐ Repair
- ☐ Maintenance

Are there Gas Vent Stacks located on the roof? ☐ Yes ☒ No If yes, what type? ☐ Natural ☐ LP Gas

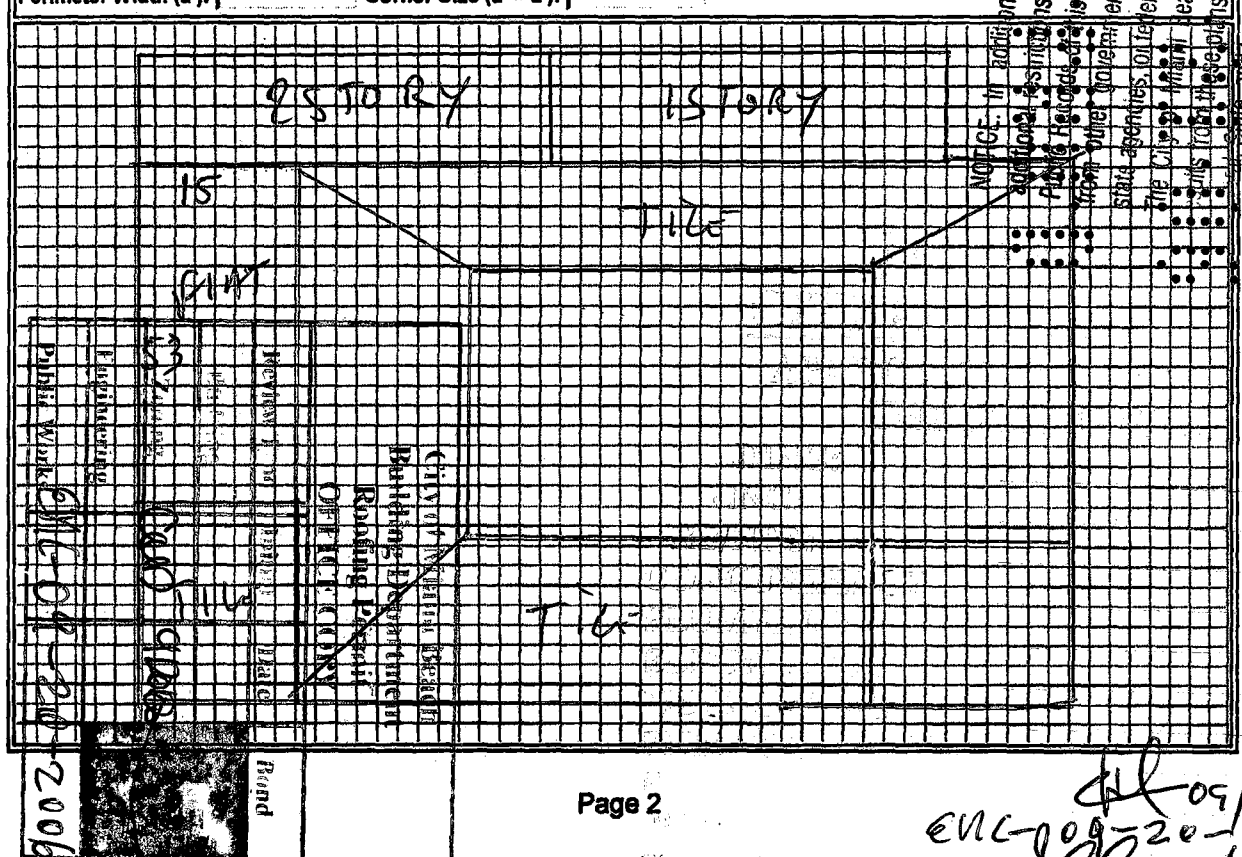
Roof System Information

Low slope roof area (ft.²): 800 Steep Sloped area (ft.²): Total (ft.²): 800

Section B (Roof Plan)

Sketch Roof Plan: Illustrate all levels and sections, roof drains, scuppers, overflow scuppers and overflow drains. Include dimensions of sections and levels, clearly identify dimensions of elevated pressure zones and location of parapets.

Perimeter Width (a'): Corner Size (a' × a'):



09/20/06
ENG 09-20-2006
RG 09/20/06

reroof only
FLAT TO FLAT

PUBLIC WORKS
PLAN REVIEW NOTICE
Phone 305-673-7080 Fax 305-673-7028

THIS PLAN REVIEW CONSTITUTES APPROVAL FOR OBTAINING BUILDING PERMITS ONLY.

All construction and/or use of equipment in the right-of-way and/or easements, requires a separate Public Works Department permit prior to start of construction.

Permit Requirements: Proof of existing sidewalk/swale area conditions (pictures) and/or posting of sidewalk/roadway bonds (Public Works inspection of the right-of-way will be required prior to final sign-off on the C.C. / C.O., or the release of bonds.)

Approved/Reviewed By: CMC Date: 09-20-2006

48 HOURS PRIOR TO EXCAVATING
CONTRACTOR SHALL CALL FOR LOCATION
OF UNDERGROUND UTILITIES
SUNSHINE ONE-CALL 1-800-432-4770
CITY OF MIAMI BEACH 305-673-7080

City of Miami Beach
Building Department
Roofing Permit
OFFICE COPY

Review Type	Initials	Date	Bond
Plumbing			
Zoning			
Engineering			
Public Works	CMC	09-20-2006	

CMC-09-20-2006

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Section C (Low Sloped Roof System)

Fill in the specific roof assembly components. If a component is not required, insert not applicable (N/A) in the text box.

Roof System Manufacturer:

NOA No: System Type: BUR-RAS 150

Wind Uplift Pressures, From RAS 128 or Sealed Calculations:

(P1) Field: psf (P2) Perimeters: psf

(P3) Corners: psf

Maximum Design Pressure, From the Specific

NOA System: psf

Deck type: 5/8" Plywood

*** These decks require a fastener pull test by an approved test laboratory**

Other Deck Type:

Deck Support Spacing:

Slope: 1/8" :12

Fire or Vapor Barrier:

Anchor/Base Sheet & No. of Ply(s):

1 Ply BASESheet 75 LBS

Anchor/Base Sheet Fastener/Bonding Material:

1/4 RS NAILS + TIN CAP

Insulation Base Layer Size & Thickness:

NA

Insulation Base Layer Fastener/Bonding Material:

NA

Insulation Top Layer Size & Thickness:

NA

Insulation Top Layer Fastener/Bonding Material:

NA

Wood Nailer:

Wood Nailer Fastener Type and Spacing:

Base Sheet(s) & No. of Ply(s):

1 Ply 75 LBS

Base Sheet Fastener/Bonding Material:

1¼ RS NAIL + TINCAP

Ply Sheet(s) & No. of Ply(s):

1 Ply IV

Ply Sheet Fastener/Bonding Material:

HOT MOP

Top Ply:

Modified BITUMEN

Top Ply Fastening/Bonding Material:

HOT MOP

Surfacing:

GRANULES

Single Ply membrane:

—

Single Ply Sheet Width: 1/2 sheet width:

No. of Single Ply 1/2 sheets:

Single Ply Membrane Fastening/Bonding Material:

Drip/GS Edge Metal Size & Gauge or weight: N/A

Drip/GS Material Type: N/A

Drip/GS Hook Strip/Cleat Metal gauge or weight: N/A

Parapet Coping Metal Size & Gauge or weight: N/A

Coping Material Type: N/A

Parapet Hook Strip/Cleat Metal gauge or weight: N/A

FASTENER SPACING FOR BASESHEET ATTACHMENT

1. Field: 12 " o/c @ laps & 2 rows @ 18 " o/c
2. Perimeter: 12 " o/c @ laps & 2 rows @ 15 " o/c
3. Corners: 4 " o/c @ laps & 2 rows @ 6 " o/c

NUMBER OF FASTENERS PER INSULATION BOARD

Field: — Perimeter: — Corner: —

Fastener Type :

N/A

Alternate Fastener:

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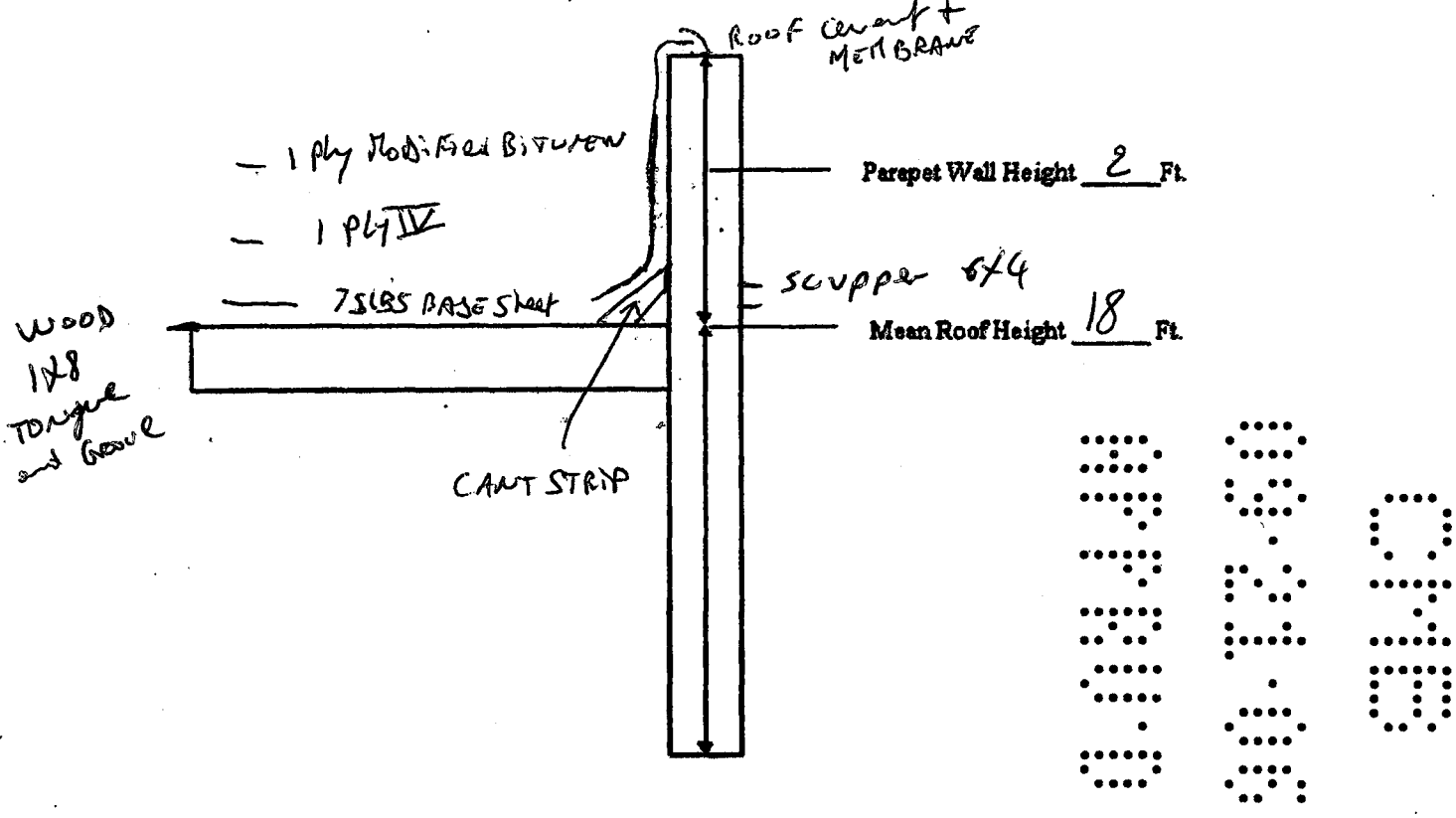
Illustrate Components Noted and Details as Applicable:
Woodblocking, Gutter, Edge Terminations/Stripping/Flashing, Continuous Cleat, Cant Strip, Base Flashing,Counterflashing, Coping, Etc.

Indicate: Mean Roof Height, Parapet Height, Height of Base Flashing, Component Material, Material Thickness, Fastener Type, Fastener Spacing

Or: Submit Manufacturers Details that Comply with RAS-111 and Chapter 16.



SECTION 1524
HIGH VELOCITY HURRICANE ZONES REQUIRED OWNERS NOTIFICATION FOR ROOFING CONSIDERATIONS

1524.1 As it pertains to this section, it is the responsibility of the roofing contractor to provide the owner with the required roofing permit, and to explain to the owner the content of this section.. The provisions of Chapter 15 of the *Florida Building Code, Building* govern the minimum requirements and standards of the industry for roofing system installations. Additionally, the following items should be addressed as part of the agreement between the owner and the contractor. The owner's initial in the adjacent box indicates that the item has been explained.

BD **1. Aesthetics-Workmanship:** The workmanship provisions of Chapter 15 (High Velocity Hurricane Zone) are for the purpose of providing that the roofing system meets the wind resistance and water intrusion performance standards. Aesthetics (appearance) issues are not a consideration with respect to workmanship provisions. Aesthetic issues such as color or architectural appearance, that are not part of a zoning code, should be addressed as part of the agreement between the owner and the contractor.

BD **2. Renailing Wood Decks:** When replacing roofing, the existing wood roof deck may have to be renailed in accordance with the current provisions of Chapter 16 (High Velocity Hurricane Zones) of the Florida Building Code. (The roof deck is usually concealed prior to removing the existing roof system).

BD **3. Common Roofs: Common roofs are those which have no visible delineation between neighboring** units (i.e. townhouses, condominiums, etc.). In buildings with common roofs, the roofing contractor and/or owner should notify the occupants of adjacent units of roofing work to be performed.

BD **4. Exposed Ceilings:** Exposed, open beam ceilings are where the underside of the roof decking can be viewed from below. The owner may wish to maintain the architectural appearance, therefore, roofing nail penetrations of the underside of the decking may not be acceptable. The Florida Building Code provides the option of maintaining this appearance.

BD **5. Ponding Water: The current roof system and/or deck of the building may not drain well and may** cause water to pond (accumulate) in low-lying areas of the roof. Ponding can be an indication of structural distress and may require the review of a professional structural engineer. Ponding may shorten the life expectancy and performance of the new roofing system. Ponding conditions may not be evident until the original roofing system is removed. Ponding conditions should be corrected.

BD **6. Overflow scuppers (wall outlets): It is required that rainwater flow off so that the roof is not** overloaded from a build up of water. Perimeter/edge walls or other roof extensions may block this discharge if overflow scuppers (wall outlets) are not provided. It may be necessary to install overflow scuppers in accordance with the Florida Building Code, Plumbing.

BD **7. Ventilation:** Most roof structures should have some ability to vent natural airflow through the interior of the structural assembly (the building itself). The existing amount of attic ventilation shall not be reduced. It may be beneficial to consider additional venting which can result in extending the service life of the roof.

Owner's/Agent's Signature

8/10/06
Date

Contractor's Signature

5256 NORTH BAY ROAD
Property Address

Permit Number

MIAMI FL 33140

Rev:1/20/2005,Computer Services, Building Department

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INSTRUCTION PAGE

COMPLETE THE NECESSARY SECTIONS OF THE UNIFORM ROOFING PERMIT APPLICATION FORM AND ATTACH THE REQUIRED DOCUMENTS AS NOTED BELOW.

Roof System	Required Sections of the Permit Application Form	Attachments Required See List Below
Low Slope Application	A, B, C	1,2,3,4,5,6,7
Prescriptive BUR RAS 150	A, B,C	4,5,6,7
Asphaltic Shingles	A, B, D	1,2,4,5,6,7
Concrete or Clay Tile	A, B, D, E	1,2,3,4,5,6,7
Metal Roofs	A, B, D	1,2,3,4,5,6,7
Wood Shingles and Shakes	A, B, D	1,2,4,5,6,7
Other	As Applicable	1,2,3,4,5,6,7

ATTACHMENTS REQUIRED

1. Fire Directory Listing Page
2. From the Miami-Dade County Notice of Acceptance
   - NOA Cover Sheet
   - NOA Specific System Description
   - NOA Specific System Limitations
   - NOA General Limitations
   - Applicable Detail Drawings
3. Design Calculations per Chapter 16, or if applicable, RAS 127 or RAS 128
4. Other Component Notice of Acceptances
5. Municipal Permit Application
6. Owners Notification for Roofing Considerations (Appendix " F" Form) Re-roofing or Repairs Only
7. Any Required Roof Testing/Calculation Documentation

Any other additional data reasonably required by the Building Official to determine the integrity of the roofing system.

ROOFING APPLICATION STANDARD (RAS) No. 150

PRESCRIPTIVE BUR REQUIREMENTS

1. Scope

1.1 This application standard shall be used where the authority having jurisdiction has adopted its use, and in accordance with the provisions of this code.

2. Definitions

2.1 For definitions of terms used in this application standard, refer to ASTM D 1079 and the *Florida Building Code, Building*.

3. Built-up and Prepared Roof Covering Application

3.0 General

3.1 DECK PREPARATION: Before starting the roof covering:

3.1.1 All roof decks shall be broom-cleaned and dry.

3.1.2 Where practicable, eaves; parapet walls; vertical walls; penthouses and similar structures above the roof level shall have been completed.

3.1.3 Cant strips, where provided, shall extend at least three inches (3 in.) up vertical surfaces.

3.1.4 All eaves shall provide firm, nailable backing for the secure attachment of gravel stops and eave and gable drip.

3.1.5 All pre-cast and prestressed concrete roof components shall be provided with insulation, or other leveling fill, where such component edges are more than one-half inch (1/2 in.) from being flush.

3.2 ATTACHMENT: All roof coverings shall be attached to the various types of decks by mopped-on adhesives or by mechanical fastening as set forth herein, or by other approved materials or methods.

3.3 ADHESIVES:

3.3.1 Bituminous compounds shall be asphalt (ASTM D 312), coal tar pitch (ASTM D 450), modified bitumen, or cold-applied roofing cement (ASTM D 4586 or ASTM D 3019, Type III).

3.3.2 Hot asphalt shall be applied in a quantity not less than 25 pounds plus or minus 15% per roofing square per ply and 60 pounds plus or minus 20% per square for flood coats and at a temperature recommended by the manufacturer for the system being installed. However, kettle or tanker temperatures should not exceed the following:

Type I Asphalt: ..... 495 degrees Fahrenheit
Type III & IV Asphalt: ..... 525 degrees Fahrenheit

NOTE: Asphalt can be heated as within 25 degrees F below the actual flash point, but this temperature limitation should never be exceeded.

3.3.3 Coal tar pitch shall be applied in a quantity not less than 25 pounds plus or minus 15% per roofing square per ply and 70 pounds plus or minus 20% per square for flood coats and at a temperature of not less than 275 nor more than 350 degrees Fahrenheit (350 to 400 degrees in the kettle).

3.3.4 Where roof incline exceeds two inches (2 in.) per foot, bituminous compounds shall be steep asphalt Type III or Type IV.

NOTE: Coal tar pitch not to exceed a slope of one-half inch (1/2 in.) per foot with organic felts, if using glass felts or tar coated felts, slope not to exceed one-quarter inch (1/4 in.) per foot.

3.3.5 Adhesive compounds other than bitumen may be applied subject to manufacturer's specifications.

4 BUILT-UP ROOF COVERING:

4.1 Materials: All materials used in the assembly of fire-retardant and ordinary built-up coverings shall bear the label of the Underwriter's Laboratories, Inc., and be compatible with Class A, Class B, or Class C roofing. Material shall be delivered in original packaging bearing the manufacturer's labels.

4.2 ANCHOR SHEET: The anchor sheet, as defined herein, shall be a minimum one #30 felt lapped two inches (2 in.) and turned up vertical surfaces a minimum of four inches (4 in.) and secured as set forth herein.

4.3 WOOD DECKS:

4.3.1 Fasteners securing the anchor sheet to nominal one inch (1 in.) lumber or to wood based structural-use panels three-quarters inch (3/4 in.) or more in thickness shall be non-corrosive smooth shank nails with a shank diameter of a minimum of 0.118 inches or 11 gauge, heads not less than three-eighths inches (3/8 in.) (0.375) diameter and not less than one inch (1 in.) in length; or non-corrosive 12 gage wire ring-shanked nails having not less than 20 rings per inch, not less than one inch (1 in.) in length with heads not less than three-eighths inch (3/8 in.) in diameter.

4.3.2 Fasteners securing the anchor sheet to wood based structural-use panels less than three-quarters inch (3/4 in.) in thickness shall be non-corrosive smooth shank nails with a shank diameter of a minimum of 0.118 inches or eleven (11) gauge, heads not less than three-eighths inch (3/8 in.) (0.375 in.) diameter and not less in length than will penetrate such wood based structural-use panels plus three-sixteenths inch (3/16 in.); or non-corrosive 12 gage wire ring-shanked nails having not less than 20 rings per inch, heads not less than three-eighths inch (3/8 in.) diameter and not less in length than will penetrate such wood based structural-use panels plus three-sixteenths inch (3/16 in.).

4.3.3 Such fasteners shall be applied through tin-caps not less than one and five-eighths inches (1 5/8 in.) nor more than two inches (2 in.) in diameter and of not less than 32 gage sheet metal.

4.3.4 Spacing of such fasteners along the laps of sheets and both ways in the field between laps shall comply with Table 1, based upon height above grade.

TABLE 1 (3)

FOR MINIMUM BASE SHEET (6)
1 LAYER, TYPE #30, ASTM D-226 - TYPE II

Mean Roof Height (Ft.)	Fastening Pattern (1)	
	Perimeter Edge(2)	Field (4)
0 - 30	6 in. @ laps, 2 rows @ 6 in. midsheet	6 in. @ laps, 2 rows @ 12 in. midsheet
40	6 in. @ laps, 2 rows @ 6 in. midsheet	6 in. @ laps, 2 rows @ 9 in. midsheet

FOR MINIMUM BASE SHEET (6)
1 LAYER, TYPE #45, ASTM D-2626 - TYPE I

Mean Roof Height (Ft.)	Fastening Pattern (1)	
	Perimeter Edge (2)	Field (4)
0 - 30	12 in. @ laps, 2 rows @ 15 in. midsheet	12 in. @ laps, 2 rows @ 18 in. midsheet
40	12 in. @ laps, 2 rows @ 12 in. midsheet	12 in. @ laps, 2 rows @ 18 in. midsheet

FOOTNOTES:
(1) See Section 4 for fasteners.
(2) Perimeter edge is measured from all roof edges and each side of ridge as follows:
The smaller of 0.10 x minimum building width or
0.40 x mean roof height, but not less than
0.04 x minimum building width or 3 feet.
(3) This table applies to roof slopes up to three inches (3 in.) per twelve inches (12 in.) (Maximum)
(4) Rows of fasteners, midsheet, shall be evenly spaced across width of sheet and staggered along length of sheet.
(5) Patterns shown require a minimum withdrawal capacity of 34 lb per fastener (unfactored.)
(6) Patterns shown require a minimum withdrawal capacity of 67 lb per fastener (unfactored.)

4.3.5 Where the architectural appearance is to be preserved from below, anchor sheet shall be secured in accordance with 1519.5.2

4.3.6 Other sub-deck systems may use the spacing shown in Table 1 provided each fastener has the required withdrawal load in the particular substrate for which the fastener is designed.

4.3.7 Sheathing paper shall be applied on such decks where anchor sheets are pitch-tarred felts only and shall not be required under asphalt felts.

4.4 OTHER NAILABLE DECKS: Poured gypsum, precast gypsum planks, poured Vermiculite and Perlite (light-weight, insulating concrete), as well as foamed cellular concrete and structural wood-fiber used as roof decking are considered nailable and anchor sheets shall be attached as follows:

4.4.1 Poured gypsum and pre-cast gypsum planks: Use mechanical fasteners providing equal withdrawal resistance when spaced as set forth in Table 1 of this Code.

4.4.2 Poured Vermiculite, Perlite, foamed cellular concrete, and other light-weight, insulating concrete: Use only mechanical fasteners providing resistance to uplift not less than those shown in Table 1.

4.4.3 Structural wood fiber units: Use mechanical fasteners specified by the deck manufacturer, or after all joints have been stripped with six inch (6 in.) wide felt applied with approved cold adhesive, the anchor sheet may be solid mopped to such decks.

4.5 NON-NAILABLE DECKS: Poured concrete and precast deck units are considered non-nailable and anchor sheets shall be fastened as follows:

4.5.1 Such decks shall be primed with asphalt primer applied at the rate of one and one third (1 1/3) gallons per roofing square, solidly on poured decks but held back four inches (4 in.) from precast unit joints.

4.5.2 Strip or solid mop, holding back four inches (4 in.) from precast unit joints, using dead level asphalt or coal tar pitch as the adhesive unless otherwise specified on the plans and permit and embed anchor sheet firmly in the hot bitumen lapping each sheet four inches (4 in.).

4.5.3 Where the incline of such decks exceeds three inches (3 in.) per foot, anchor sheets shall, in addition to mopping, be mechanically fastened to wood strips spaced not more than 24 inches apart, cast into such decks.

4.5.4 Such wood strips shall be not less than a nominal one by two inches (1 in. x 2 in.), pressure treated with approved preservative, chamfered or otherwise secured flush with the deck surface.

4.5.5 Anchor sheets shall be attached to such wood strips with three-quarter inch (3/4 in.) long fasteners applied through tin caps and spaced as set forth herein.

4.5.6 Anchor sheet attachment shall satisfy the resistance to uplift requirements of Section 4.3.6 herein.

4.6 METAL DECKS: Metal decks shall be covered with mechanically fastened roof insulation.

4.7 OTHER DECKS: Attachment of the anchor sheet to decks other than those specifically provided for herein shall be as approved by the building official.

4.8 ADDITIONAL SHEETS:

4.8.1 Each additional sheet above the anchor sheet shall be lapped a minimum of two inches (2 in.) over the preceding sheet and shall be thoroughly mopped between sheets with a bituminous compound, or other approved adhesive providing equivalent bond, so that in no place felt touches felt.

4.8.2 Sheets shall be embedded without wrinkles or buckles.

4.8.3 Each sheet, like the anchor sheet, shall be turned up vertical surfaces a minimum of four inches (4 in.).

4.8.4 (aa) Polymer modified bitumen membranes may be applied as a single ply over a mechanically fastened anchor sheet without additional plies where slopes exceed one eighth inch (1/8 in.) per foot. An additional ply is required for slopes less than 1/8 in. per foot. Slope requirement applies to new roofs, re-cover roofs and reroofs.

4.8.5 Polymer modified bitumen membranes shall not be applied to slopes exceeding three inches (3 in.) per foot. At slopes exceeding one inch (1 in.) per foot, they shall be backnailed four inches (4 in.) from the upper edge at maximum twenty-four inches (24 in.) on center.

4.8.6 Polymer modified bitumen must be applied utilizing hot or cold adhesives as specified in Section 3.2.

4.9 FELT FLASHINGS:

4.9.1 Flashing used in the construction of built-up roof coverings shall be carried over cant strips, where provided, and turned up all walls and other vertical surfaces a minimum of eight inches (8 in.) and maximum of twenty four inches (24 in.).

4.9.2 Each layer of flashing shall be uniformly mopped with hot asphalt applied in a quantity not less than 25 pounds plus or minus 15% per roofing square for each mopping, or attached with approved cold adhesive providing equivalent bond.

4.9.3 Flashing turned up vertical surfaces shall be not less than one #30 felt starting four inches (4 in.) out from the cant strip and carried up such vertical surfaces not less than six inches (6 in.), and one mineral surfaced felt starting six inches (6 in.) out from the cant strip and carried up a minimum of eight inches (8 in.) above the top of the cant.

4.9.4 Such flashing shall be fastened to the wall one and one-half inches (1½ in.) down from the upper edge every six inches (6 in.) after which the top edge shall be finished with a three inch (3 in.) strip of membrane set in roofing cement (ASTM D 4586).

4.10 VALLEYS:

4.10.1 Valleys shall be metal, as set forth in Section 1517.6 *Florida Building Code, Building*.

4.11 PARAPET WALLS: Built-up roof covering felts shall not wrap over walls more than 24 in. in height above the deck and, where wrapped, shall be applied as follows:

4.11.1 Flashing turned up vertical surfaces shall be not less than one #30 felt starting four inches (4 in.) out from the cant strip and carried up the face over the top of the parapet, and one mineral surfaced rolled roofing (ASTM D 249) starting six inches (6 in.) out from the cant strip and carried up and over the parapet to within three inches (3 in.) of the outside edge and fastened six inches (6 in.) on center.

4.11.2 The resulting edge shall then be finished with either a three inch (3 in.) strip of membrane set in roofing cement (ASTM D 4586) and painted with aluminum paint or coping installed in accordance with Section 1517.6 *Florida Building Code, Building*.

4.12 INSULATION: Roof insulation may be applied under or over an anchor sheet and, where provided shall be attached as set forth in Section 5 herein.

4.13 SURFACING:

4.13.1 Mineral surfaced roofing shall not be applied on inclines one-half inch (1/2 in.) or less per foot and, where used, shall be applied only over anchor sheets and mopped in as provided in Section 4.8 herein, and on inclines five inches (5 in.) or more per foot, such caps shall be backnailed 18 inches on centers.

4.13.2 Cap-surfacing with smooth or mineral surfaced felts of glass, or modified bitumen of SBS shall not be limited to slope requirements and may be:

4.13.2.1 One layer of mineral surfaced fiberglass felt.

4.13.3 COATINGS:

4.13.3.1 Coatings shall be applied no later than 60 days after installation of membrane. Surface shall be clean and dry when coating is applied. Roof to be coated shall not be glaze coated. Coatings shall be applied in a uniform coverage with no asphalt showing through.

4.13.3.2 Aluminum pigmented coatings conforming to ASTM D 2824 Type I or III shall be applied at a minimum rate of 1.5 gallons per 100 square feet.

4.13.3.3 Emulsion coatings conforming to ASTM D 1227 Type III or IV shall be applied at the minimum rate of 3 gallons per 100 square feet.

4.13.3.4 Acrylic coatings shall not be applied on slopes less than 1/4 in. per foot, and when used, shall be applied at the rate recommended by the coating manufacturer.

ROOF INSULATION:

5.1 Application: Roof insulation shall provide an acceptable base for built-up, polymer-modified bitumen, or single-ply roof coverings, or shall become a part of such roof coverings as follows:

5.1.1 Over Wood Decks: Roof insulation shall be mechanically fastened directly to wood decks or shall be solidly mopped over an anchor sheet as set forth in Section 4.2 herein.

5.1.2 Over Other Nailable Decks: To reduce moisture absorption from the deck and preserve the insulating effectiveness, roof insulation shall be applied over an anchor sheet.

5.1.3 Insulation may be fully mopped to an anchor sheet on a nailable deck without any fasteners in the insulation.

5.1.4 Over Non-Nailable Decks:

5.1.4.1 Roof insulation shall be solid-mopped as provided in Sections 4.5 and 4.6 herein for anchor sheet attachment to non-nailable roof decks.

5.1.4.2 Insulation used over structural or precast concrete deck shall be a maximum of 4' x 4' and fully mopped to the deck.

5.1.4.3 Over metal decks, roof insulation shall be mechanically attached per Table 2.

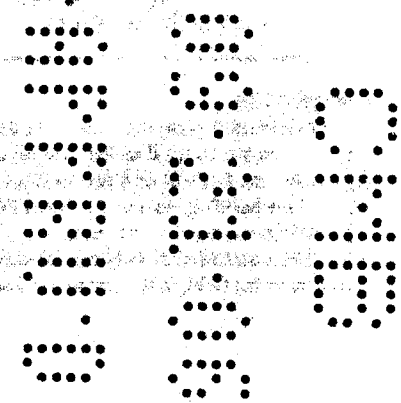


TABLE 2
MECHANICALLY FASTENED INSULATION
FOR BUILDINGS 40 FEET OR LESS IN HEIGHT

	FASTENERS PER BOARD[1,5,6]		
BOARD SIZE	FIELD	PERIMETER[2]	CORNERS[3]
WOOD FIBERBOARD			
2 x 4 1 inch minimum	2	3	4[4]
2 x 4 1 inch minimum	4	6	8[4]
4 x 8 1 inch minimum	8	12	16[4]
FIBERGLASS			
4 x 4 3/4 inch minimum	5	8	11
4 x 4 1.5 inch minimum	4	6	8
PERLITE			
2 x 4 1 inch minimum	4	6	8[4]
ISOCYANURATE			
4 x 4 1.3 inch minimum	5	8	11
4 x 4 1.5 inch minimum	4	6	8

FOOTNOTES
(1) Minimum 3-inch plates must be used.
(2) Perimeter: Defined as the first board or a minimum of 4 feet from the roof edge.
(3) Corners: Defined as 8 feet in from each side.
(4) If the building has parapet walls 36 inches or higher around the entire roof perimeter, use the number of fasteners for the perimeter.
(5) Wood and Steel decks use a minimum #12 screw and penetrate through the deck a minimum of 1/2 inch.
(6) The installation of Polymer Modified Bitumen as a single ply directly applied over mechanically fastened insulation requires DOUBLE the amount of fasteners in the field, perimeter and corners.

5.1.5 Over Anchor Sheet: Roof insulation applied over anchor sheets, attached as set forth in Section 4 herein shall be solid-mopped in as provided in Section 8 herein.

5.1.6 Under Anchor Sheet:

5.1.6.1 Where more than one layer of roof insulation is provided, each successive layer shall be solid-mopped in and all joints shall be staggered.

5.1.6.2 Anchor sheets applied over such insulation shall be solid-mopped thereto, or mechanically fastened through the insulation to nailable decks with approved fasteners spaced as set forth in Table 1 and the mechanical fastening of the insulation may be omitted.

5.1.6.3 Additional built-up roofing above the anchor sheet shall be mopped in place as provided in Section 4.8 herein.

5.1.6.4 Attachment of other roof coverings over roof insulation shall comply with the specific provisions set forth in this RAS.

6. Roof Incline:

6.1 Roof insulation applied to roof with inclines of 3 or more inches per foot (1 inch per foot on steel decks) shall be nailed, screwed or bolted through tin-caps spaced not more than 12 inches on centers both ways.

6.2 Only ASTM D 312 Type III or IV asphalt shall be used on such applications.

7. Vapor Retarders: Where vapor retarders are specified, they shall be as follows:

7.1 Over wood and other nailable decks, vapor retarders shall be not less than two #15 felts lapped 19 inches, or one #30 felt lapped 4 inches, solidly mopped to anchor sheet.

7.2 Over non-nailable decks, vapor retarders shall be not less than two #15 pound felts, lapped 19 inches, shingled in and solidly mopped with hot bitumen.

8. Mopping: Solid mopping shall be hot bitumen applied in a quantity of not less than 25 pounds per roofing square at temperatures as set forth in Section 3.3, and roof insulation shall be laid with staggered joints and pressed firmly into position while such mopping is hot.

MIAMI-DADE

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)

GAF Material Corporation
1361 Alps Road
Wayne, NJ 07470

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 the BCCO and accepted by the Building Code and Product Review Committee 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 High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: GAF Conventional Built-Up Roof System for Wood Deck.

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 #02-0408.09 and consists of pages 1 through 21.
The submitted documentation was reviewed by Frank Zuloaga, RRC

NOA No: 03-0501.05
Expiration Date: 11/04/08
Approval Date: 10/23/03

ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	BUR
Deck Type:	Wood
Maximum Design Pressure	-75 psf
Fire Classification:	See General Limitation #1

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

Product	Dimensions	Test Specification	Product Description
GAF Asphalt Concrete Primer (Matrix™ 307 Primer)	5, 55 gallons	ASTM D 41	Asphalt concrete primer used to promote adhesion of asphalt in built-up roofing.
GAF Mineral Shield® Granules	60 lb. bags	ASTM D 1863	Granules for surfacing of exposed asphalt, cold process cement or emulsion. GAF Mineral Shield® Granules shall be used for flashing applications only.
GAF WeatherCoat® Emulsion (Matrix™ Fibered 305 Emulsion)	5 gallons	ASTM 1227	Surface coating for smooth surfaced roofs.
GAF Premium Fibered Aluminum Roof Coating (Matrix™ System Pro Aluminum Roof Coating Fibered 301)	1, 5 gallons	ASTM D 2824	Fibered aluminum coating.
GAF Jetblack All Weather Plastic Cement (Matrix™ Standard Wet/Dry Roof Cement 204)	1, 5 gallons	ASTM D 3019 ASTM D 3409	Refined asphalt blended with a mineral stabilizer and fibers. Permits adhesion to wet and dry surfaces.
RUBEROID® Modified Bitumen Flashing Cement	5 gallons	ASTM D 4586	Fiber reinforced, polymer modified Flashing cement
Jetblack Premium Flashing Cement	5 gallons	ASTM D 4586	Asphalt flashing Cement
GAFGLAS® #75	39.37" (1 meter) wide	ASTM D 4601	Asphalt impregnated and coated glass mat base sheet.
GAFGLAS #80 Ultima Base Sheet	39.37" (1 meter) wide	ASTM D4601	Asphalt impregnated and coated, fiberglass base sheet
GAFGLAS Flex Ply™ 6	39.37" (1 meter) wide	ASTM D 2178	Type VI asphalt impregnated glass felt with asphalt coating.

Product	Dimensions	Test Specification	Product Description
GAFGLAS Ply 4®	39.37" (1 meter) wide	ASTM D 2178	Type IV asphalt impregnated glass felt with asphalt coating.
GAFGLAS® Mineral Surfaced Cap Sheet	39.37" (1 meter) wide	ASTM D 3909	Asphalt coated, glass fiber mat cap sheet surfaced with mineral granules.
GAFGLAS® STRATAVENT® Eliminator Perforated	39.37" (1 meter) wide	ASTM D 4897 D 3672	Fiberglass base sheet impregnated and coated on both sides with asphalt. Surfaced on the bottom side with mineral granules embedded in asphaltic coating with factory perforations.
GAFGLAS® Flashing	Various		Asphalt coated glass fiber mat flashing sheet available in three sizes.
GAFGLAS® STRATAVENT Eliminator Perforated Nailable	39.37" (1 meter) wide	ASTM D 4897 D 3672	Fiberglass base sheet impregnated and coated on both sides with asphalt. Surfaced on the bottom side with mineral granules embedded in asphaltic coating.
RUBEROID® SBS Heat-Weld™ Smooth	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with polymer-modified asphalt and smooth surfaced.
RUBEROID® SBS Heat-Weld™ Granule	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with polymer modified asphalt and surfaced with mineral granules.
RUBEROID® SBS Heat-Weld™ 170 FR	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with fire retardant polymer modified asphalt and surfaced with mineral granules.
RUBEROID® SBS Heat-Weld™ PLUS	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with polymer modified asphalt and surfaced with mineral granules.
RUBEROID® SBS Heat-Weld PLUS FR	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with fire retardant polymer modified asphalt and surfaced with mineral granules.
RUBEROID® SBS Heat-Weld™ 25	1 meter (39.37") wide	ASTM D-6164	Non-Woven Polyester mat coated with polymer-modified asphalt and smooth surfaced.
RUBEROID Modified Base Sheet	39.37" (1 meter) wide	ASTM D4601, Type II, UL Type G2 BUR	Premium glass fiber reinforced SBS-modified base sheet
Ruberoid® 20	39.37" (1 meter) wide	ASTM D 6163 ASTM D 5147	SBS modified asphalt base sheet and interply sheet reinforce with a glass fiber mat.
Ruberoid® Mop Granule	39.37" (1 meter) wide	ASTM D 6222 ASTM D 5147	Non-woven polyester mat coated with polymer modified asphalt and surfaced with mineral granules.

Product	Dimensions	Test Specification	Product Description
Ruberoid® Mop Plus (Granule)	39.37" (1 meter) wide	ASTM D 6222 ASTM D 5147	Non-woven polyester mat coated with polymer modified asphalt and surfaced with mineral granules.
RUBEROID MOP Smooth	39.37" (1 meter) wide	ASTM D 6164 ASTM D 5147	Non-woven polyester mat coated with polymer-modified asphalt and smooth surfaced.
RUBEROID® MOP 170FR	39.37" (1 meter) wide	ASTM D 6164 ASTM D 5147	Non-Woven polyester mat coated with fire retardant polymer modified asphalt and surfaced with mineral granules.
RUBEROID® MOP FR	39.37" (1 meter) wide	ASTM D 6164 ASTM D 5147	Non-Woven polyester mat coated with fire retardant polymer modified asphalt and surfaced with mineral granules.
RUBEROID® TORCH Smooth	39.37" (1 meter) wide	ASTM D 5147	Heavy duty, polyester reinforced, asphalt modified bitumen membrane, smooth surface.
RUBEROID® TORCH Granule	39.37" (1 meter) wide	ASTM D 5147	Asphalt impregnated, coated felt, surfaced with mineral granule.
RUBEROID® TORCH PLUS (Granule)	39.37" (1 meter) wide	ASTM D 6222 ASTM D 5147	Heavy duty, polyester reinforced, asphalt modified bitumen membrane, granule surface
RUBEROID® TORCH FR	39.37" (1 meter) wide	ASTM D 6222 ASTM D 5147	Heavy duty, polyester reinforced, coated with fire retardant asphalt modified bitumen membrane, granule surface.
RUBEROID 170FR TORCH	39.37" (1 meter) Wide	ASTM D 6222 ASTM D 5147	Heavy duty, polyester reinforced, coated with fire retardant asphalt modified bitumen membrane, granule surface.
RUBEROID® 30	39.37" (1 meter) wide	ASTM D 6163 ASTM D 5147	Non-woven fiberglass mat coated with polymer modified asphalt and surfaced with mineral granules.
RUBEROID® 30 FR	39.37" (1 meter) wide	ASTM D 6163 ASTM D 5147	Non-woven fiberglass mat coated with fire retardant polymer modified asphalt and surfaced with mineral granules.
RUBEROID ULTRACLAD® SBS	39.37" (1 meter) wide	ASTM D 6298 ASTM D 5147	Woven fiberglass mat coated with Polymer modified asphalt and surfaced with aluminum, copper or stainless steel foil.
RUBEROID® Dual FR	39.37" (1 meter) Wide	ASTM D 6164 ASTM D 5147	Non-woven polyester and fiberglass mat coated with file retardant, polymer modified asphalt and surfaced with mineral granules.

Product	Dimensions	Test Specification	Product Description
Vent Stacks (metal and plastic)		PA 100(A) ASTM D 1929 ASTM D 635	One way valve vent used to relieve built-up pressure within the roof system. GAF Vent Stacks are available in metal or plastic.
GAF Aluminum Emulsion	5 gallons	None	Mineral colloidal bituminous emulsion with reflective aluminum flakes
GAF Aluminum Roof Paint (Matrix® System Pro Aluminum Roof Coating Fibered 302)	5 gallons	ASTM D2824, Type I	Non-fibered aluminum pigmented, asphalt roof coating
GAF Built-Up Roofing Asphalt	100 lb. cartons, bulk	ASTM D312, Types I, II, III and IV	Interply mopping and surfacing asphalt
RUBEROID MOD Asphalt, Asphalt L & Asphalt P	60 lb. kegs		SEBS modified asphalt
Tile-Mate Base Sheet	39.37" (1 meter) wide	ASTM D4601	Asphalt impregnated and coated, fiberglass base sheet
Tile-Mate Cap Sheet	39.37" (1 meter) wide	ASTM D 3909	Asphalt coated, glass fiber mat cap sheet surfaced with mineral granules
Shingle-Mate™ Underlayment	4 sq. roll 30 lbs.		Fiberglass reinforced shingle underlayment
TopCoat® Surface Seal SB (Matrix 602 SB Coating)	5 gallons		Surface coating for smooth surfaced and mineral surfaced roofs.
GAF WeatherCote® MB+(Matrix 715 MB Coating)	5 gallons		Surface coating for smooth surfaced and mineral surfaced roofs.
TopCoat MB+(Matrix 715 MB Coating)	5 gallons		Surface coating for smooth surfaced and mineral surfaced roofs.
WeatherCote™ (Matrix 531 WeatherCote® Elastomeric Flashing Grade)	5 gallons		Surface coating for smooth surfaced and mineral surfaced roofs.
Matrix Low VOC	5 gallons		Surface coating for smooth surfaced and mineral surfaced roofs.
Matrix 101 System Pro SBS Adhesive	5 gallons	ASTM D3019	Cold Applied Modified SEBS Asphalt Adhesive
(Ruberoid®MB) Matrix 201 System Pro SBS Flashing	5 gallons	ASTM D3019	Cold Applied Modified SEBS Asphalt Adhesive – Flashing Grade.
(Ruberoid®MB) Matrix 102 Select SBS Adhesive	5 gallons	ASTM D3019	Cold Applied Modified SEBS Asphalt Adhesive.

Product	Dimensions	Test Specification	Product Description
(Ruberoid®MB) Matrix 202 Select SBS Flashing	5 gallons	ASTM D4586	Cold Applied Modified SEBS Asphalt Adhesive – Flashing Grade.
Matrix 203 Standard Plastic Cement	5 gallons	ASTM D4586	Standard Plastic Asphalt Roofing Cement
Matrix 213 Gun Grade Plastic Cement	5 gallons	ASTM D4586	Standard Plastic Asphalt Roofing Cement Caulk Grade.
Matrix 103 Cold Adhesive	5 gallons	ASTM D3019	Cold Applied Asphalt Adhesive.
Matrix 303 Select Fibered Aluminum	5 gallons	ASTM D 2824	Fibered aluminum coating.
Matrix 304 Select Non-Fibered	5 gallons	ASTM D2824, Type I	Non-fibered aluminum pigmented, asphalt roof coating.
RUBEROID® Modified Bitumen Adhesive	5 gallons	ASTM D 3019 Type III	Fiber reinforced, rubberized Adhesive

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
GAFTEMP Isotherm R, RA, RN & Composite, EnergyGuard RA	Polyisocyanurate foam insulation	GAF Materials Corp.
GAFTEMP® Composite A & N	Polyisocyanurate foam insulation with high density fiberboard or Permalite perlite insulation.	GAF Materials Corp.
(BMCA)GAFTEMP® Fiberboard	Fiberboard insulation.	GAF Materials Corp.
GAFTEMP® Permalite	Perlite insulation board.	GAF Materials Corp.
GAFTEMP GAFCANT™	Cut perlite board	GAF Materials Corp.
GAFTEMP Permalite Recover Board	Perlite recover board	GAF Materials Corp.
GAFTEMP GAFEDGE™ Tapered Edge Strip	Tapered perlite board	GAF Materials Corp.
(BMCA) GAFTEMP® High Density Fiberboard	High density wood fiberboard insulation.	GAF Materials Corp.
BMCA EnergyGuard, RA	Polyisocynurate foam insulation	BMCA
BMCA Composite EnergyGuard, RA	Polyisocynurate/wood fiberboard composite	BMCA
PYROX	Polyisocyanurate foam insulation	Apache Products Co.
White Line	Polyisocyanurate foam insulation	Apache Products Co.

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ACFoam I, II & Composite	Polyisocyanurate foam insulation	Atlas Energy Products
ISO 95+	Polyisocyanurate foam insulation	Firestone Building Products, Inc.
ISO 95+ Composite	Polyisocyanurate/perlite ridged insulation	Firestone Building Products, Inc.
Wood Fiber	Wood fiber insulation board	generic
High Density Wood Fiberboard	Wood fiber insulation board	generic
Perlite Insulation	Perlite insulation board	generic
Dens Deck	Water resistant gypsum board	G-P Gypsum Corp.
ENRG'Y-2 & ENRG'Y-2 PLUS, UltraGard Gold	Polyisocyanurate foam insulation	Johns Manville
FiberGlass Roof Insulation	Glass fiber/Mineral fiber insulation	Johns Manville
Structodek	Wood fiber insulation board	Masonite.
Multi-Max & FA	Polyisocyanurate roof insulation	RMax, Inc.
Paroc Base Board Paroc Cap Board	Rockwool insulation	Partek, Inc.

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	GAFTITE® (Drill-Tec®) #12 Standard & #14 Heavy Duty Roofing Fastener	Insulation fastener for steel, wood & concrete decks.		GAF Materials Corp.
2.	GAFTITE® (Drill-Tec®) ASAP	Pre-assembled GAFTITE Fasteners and metal and plastic plates.		GAF Materials Corp.
3.	GAFTITE® (Drill-Tec®) Base Sheet Fastener and Plate	Base sheet fastening assembly.		GAF Materials Corp.
4.	Galvalume Plates (Drill-Tec® Metal)	Round galvalume stress plates.	3" and 3 ½"	GAF Materials Corp.
5.	Polypropylene Plates (Drill-Tec® Plastic)	Round polypropylene stress plates.	3" and 3 ½"	GAF Materials Corp.
6.	Dekfast Fasteners #12, #14 & #15	Insulation fastener for wood, steel and concrete decks		Construction Fasteners Inc.

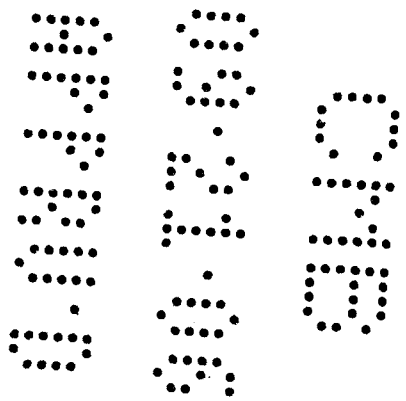
APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
7.	Dekfast Hex Plate	Galvalume hex stress plate.	2 7/8" x 3 ¼"	Construction Fasteners Inc.
8.	Dekfast Lock Plate	Polypropylene locking plate.	3" x 3 ¼"	Construction Fasteners Inc.
9.	#12 Roofgrip Fasteners	Insulation fastener for wood and steel.		ITW Buildex Corp.
10.	Metal Plate	Galvalume stress plate.	3" round 3" square	ITW Buildex Corp.
11.	Gearlok Plastic Plate	Polypropylene round plate	3.2"	ITW Buildex Corp.
12.	Glasfast Fastener	Insulation fastener assembly with recessed plastic plate		Johns Manville
13.	Olympic Fastener #12 & #14	Insulation fastener		Olympic Manufacturing Group, Inc.
14.	Olympic Fastener ASAP	Pre-assembled Insulation fastener and plate		Olympic Manufacturing Group, Inc.
15.	Olympic Polypropylene	Polypropylene plastic plate	3.25" round	Olympic Manufacturing Group, Inc.
16.	Olympic G-2	3.5" round galvalume AZ55 steel plate	3.5" round	Olympic Manufacturing Group, Inc.
17.	Olympic Standard	3" round galvalume AZ50 steel plate	3" round	Olympic Manufacturing Group, Inc.
18.	Insul-Fixx Fastener	Insulation fastener for steel and wood decks		SFS/Stadler
19.	Insul-Fixx S Plate	3" round galvalume AZ50 steel plate	3" round	SFS/Stadler
20.	Insul-Fixx P Plate	3" round polyethylene stress plate	3" round	SFS/Stadler
21.	Tru-Fast	Insulation fastener for steel and wood decks		The Tru-Fast Corp.
22.	Tru-Fast Plates	3" round galvalume AZ55 steel plate	3" round	The Tru-Fast Corp.
23.	Tru-Fast Plates	Polyethylene plastic plate	3" round	The Tru-Fast Corp.

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Description	Date
Factory Mutual Research Corp.	FMRC 1996	Current Insulation Attachment Requirements	01.01.96
Factory Mutual Research Corp.	J.I. 2B8A4.AM	Wind Uplift	07.02.97
	J.I. 3B9Q1.AM	FMRC 44704	01.08.98
	J.I. 0D0A8.AM		07.09.99
Factory Mutual Research Corp.	J.I. 0D1A8.AM	Wind Uplift	07.29.94
	J.I. 0Y9Q5.AM	FMRC 4470 - PA 114	04.01.98
PRI Asphalt Technologies, Inc.	GAF-012-02-02	Physical Properties	11.06.01
PRI Asphalt Technologies, Inc.	GAF-020-02-01	ASTM D 4977	02.01.02
IRT of S. Fl.	02-005	TAS 114	01.18.02
IRT of S. Fl.	02-014	TAS 114	03.22.02



Deck Type 1: Wood, Non-insulated

Deck Description: $^{19}/_{32}$" or greater plywood or wood plank decks

System Type E (1): Base sheet mechanically fastened.

All General and System Limitations shall apply.

Base sheet: GAFGLAS #80 Ultima™ Base Sheet, STRATAVENT® Eliminator Perforated Nailable, RUBEROID Modified Base Sheet, RUBEROID® 20, RUBEROID SBS Heat-Weld™ Smooth or RUBEROID SBS Heat-Weld 25 base sheet mechanically fastened to deck as described below;

Fastening Options: GAFGLAS® Ply 4®, GAFGLAS Flex Ply™ 6, GAFGLAS #75 Base Sheet or any of above Base sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the lap staggered and in two rows 12" o.c. in the field.
(Maximum Design Pressure –45 psf, See General Limitation #7)
GAFGLAS® Ply 4®, GAFGLAS Flex Ply™ 6, GAFGLAS #75 Base Sheet or any of above Base sheets attached to deck with Drill-Tec (GAFTITE) #12 or #14 Screws and 3" Plates, 12" o.c. in 3 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 12" o.c. in the field of the sheet.
(Maximum Design Pressure –45 psf, See General Limitation #7)
GAFGLAS Flex Ply™ 6, GAFGLAS #75 Base Sheet or any of above Base sheets attached to deck with approved annular ring shank nails and tin caps at a fastener spacing of 9" o.c. at the 4" lap staggered and in two rows 9" o.c. in the field. ***(Maximum Design Pressure –52.5 psf, See General Limitation #7)***
GAFGLAS #75 Base Sheet or any of above Base sheets attached to deck with Drill-Tec (GAFTITE) #12 or #14 Screws and 3" Plates, 12" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.
(Maximum Design Pressure –60 psf, See General Limitation #7)
Any of above Base sheets attached to deck approved annular ring shank nails and 3" inverted Drill-Tec (GAFTITE) insulation plates at a fastener spacing of 9" o.c. at the 4" lap staggered in two rows 9" in the field.
(Maximum Design Pressure –60 psf, See General Limitation #7)
GAFGLAS #75 Base Sheet or any of above Base sheets attached to deck with Drill-Tec (GAFTITE) #12 or #14 Screws and 3" Plates, 8" o.c. in 4 rows. One row is in the 2" side lap. The other rows are equally spaced approximately 9" o.c. in the field of the sheet.
(Maximum Design Pressure –75 psf, See General Limitation #7)

Ply Sheet: One or more plies of GAFGLAS® PLY 4®, GAFGLAS® PLY 6® ply sheet, #80 Ultima, RUBEROID MOP Smooth or RUBEROID 20 adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

Cap Sheet: (Optional) One ply of GAFGLAS® Mineral Surfaced Cap Sheet adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq.

WOOD DECK SYSTEM LIMITATIONS:

1 A slip sheet is required with Ply 4 and Flex Ply 6 when used as a mechanically fastened base or anchor sheet.
2. Minimum ¼" Dens Deck or ½ Type X gypsum board is acceptable to be installed directly over the wood deck.

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

Roofing Systems (TGFU)–*Continued*

1. Deck: C-15/32 Incline: 3
Insulation (Optional): One or more layers perlite, wood fiber, glass fiber, isocyanurate, urethane, perlite/isocyanurate composite, perlite/urethane composite, wood fiber/isocyanurate composite, phenolic, any thickness.
Ply Sheet: Three or more layers Type G1 "GAFGLAS Ply 4" or "GAFGLAS Ply 6", hot mopped.
Surfacing: Gravel.

2. Deck: C-15/32 Incline: 2
Insulation (Optional): One or more layers perlite, wood fiber, glass fiber, isocyanurate, urethane, perlite/isocyanurate composite, perlite/urethane composite, wood fiber/isocyanurate composite, phenolic, any thickness.
Ply Sheet: Three or more layers Type G1 "GAFGLAS Ply 4" or "GAFGLAS Ply 6".
Cap Sheet: One layer Type G3 "GAFGLAS Mineral Surfaced Cap Sheet".

3. Deck: NC Incline: 2
Insulation (Optional): One or more layers perlite, wood fiber, glass fiber, isocyanurate, urethane, perlite/isocyanurate composite, perlite/urethane composite, wood fiber/isocyanurate composite, phenolic, 2 in. max.
Ply Sheet: Two or more layers Type G1 "GAFGLAS Ply 4" or "GAFGLAS Ply 6".
Cap Sheet: One layer Type G3 "GAFGLAS Mineral Surfaced Cap Sheet".

4. Deck: NC Incline: 1/2
Insulation: One or two layers "Isotherm R", 4 in. max, hot mopped.
Ply Sheet: Any UL Classified gravel surfaced Class A asphalt glass fiber mat system.

5. Deck: C-15/32 Incline: 1
Slip Sheet (Optional): Red rosin paper, nailed to deck.
Base Sheet: One layer Type G2 "GAFGLAS #75 Base Sheet" (may be nailed).
Ply Sheet: One or more layers Type G1 "GAFGLAS Ply 4" or GAFGLAS Ply 6".
Cap Sheet: One layer Type G-3 "GAFGLAS Mineral Surfaced Cap Sheet".

6. Deck: NC Incline: 3
Base Sheet: One layer Type G2 "GAFGLAS #75 Base Sheet".
Ply Sheet: One or more layers Type G1 "GAFGLAS Ply 4" or "GAFGLAS Ply 6".
Cap Sheet: One layer Type G-3 "GAFGLAS Mineral Surfaced Cap Sheet".

7. Deck: C-15/32 Incline: 2
Insulation: One or more layers perlite, glass fiber, isocyanurate, urethane, perlite/isocyanurate composite, perlite/urethane composite, phenolic, 1.0 in. min (offset from plywood joints 6 in.).
Base Sheet: One or more layers Type G1, G2 or G3.
Membrane: One or more layers "Ruberoid Torch" (Smooth or Granule), "Ruberoid Torch Plus" (granule), "Ruberoid Mop" (Smooth or Granule) or "Ruberoid Mop Plus" (granule).
Cap Sheet: "GAFGLAS Mineral Surfaced Cap Sheet", hot mopped.

8. Deck: C-15/32 Incline: 2
Insulation (Optional): One or more layers perlite, wood fiber, glass fiber, isocyanurate, urethane, perlite/isocyanurate composite, perlite/urethane composite, wood fiber/isocyanurate composite, phenolic, any thickness.
Base Sheet: Two or more layers Type G2 or G3.
Ply Sheet (Optional): One or more layers Type G1.
Membrane: One or more layers "Ruberoid Torch" (Smooth or Granule), "Ruberoid Torch Plus" (granule), "Ruberoid Mop" (Smooth or Granule) or "Ruberoid Mop Plus" (granule).
Cap Sheet: "GAFGLAS Mineral Surfaced Cap Sheet", hot mopped.

9. Deck: NC Incline: 2
Insulation (Optional): Perlite, glass fiber, polyisocyanurate, wood fiber, mechanically fastened, any thickness.
Base Sheet: One or more layers Type G2, "GAFGLASS #75 Base Sheet".
Ply Sheet: One or more layers Type G1 "GAFGLAS Ply 4" or "GAFGLAS Ply 6".
Cap Sheet: Type G3 "GAFGLAS Mineral Surfaced Cap Sheet", hot mopped.

Roofing Systems (TGFU)–*Continued*

1. Deck: C-15/32 Incline: 3-1/2
Insulation (Optional): One or more layers perlite, wood fiber, isocyanurate, urethane, perlite/isocyanurate composite, wood fiber/isocyanurate composite, any thickness.
Ply Sheet: Two or more layers Type G1 "GAFGLAS Ply GLAS Ply 6"
Cap Sheet: Type G3 "GAFGLAS Mineral Surfaced C mopped.

2. Deck: C-15/32 Incline: 3-1/2
Insulation (Optional): One or more layers perlite, w fiber, isocyanurate, urethane, perlite/isocyanurate com urethane composite, wood fiber/isocyanurate composite thickness.
Base Sheet: Two or more layers Type G1, G2 or G3.
Membrane: One or more layers "Ruberoid Torch" (Smo "Ruberoid Torch Plus" (granule), "Ruberoid Mop" (Smo or "Ruberoid Mop Plus" (granule).
Cap Sheet: "GAFGLAS Mineral Surfaced Cap Sheet".

Class C

1. Deck: C-15/32 Incline: 1/2
Insulation (Optional): One or more layers perlite, fiber, isocyanurate, urethane, perlite/isocyanurate co urethane composite, wood fiber/isocyanurate composi thickness.
Ply Sheet: Three or more layers Type G1 "GAF "GAFGLAS Ply 6".
Surfacing: "Special Roofing Bitumen" 20 lbs/sq.

COAL TAR FELT SYSTEMS WITH HOT ROOFING

Class A

1. Deck: C-15/32 Incline: 1/2
Insulation (Optional): One or more layers perlite, fiber, isocyanurate, urethane, perlite/isocyanurate co urethane composite, wood fiber/isocyanurate compo thickness.
Ply Sheet: Three or more layers Type G1 "GAF "GAFGLAS Ply 6", hot mopped with coal tar bitume
Surfacing: Gravel.

COMBINATION HOT AND COLD SYST

Class A

1. Deck: NC Incline: 2
Insulation (Optional): One or more layers perlite, fiber, 2 in. max.
Ply Sheet: Three or more layers Type G1 "GA "GAFGLAS Ply 6".
Surfacing: Grundy Industries "al MB Aluminum 1-1/2 gal/sq.

2. Deck: NC Incline: 1
Insulation (Optional): One or more layers perlite fiber, isocyanurate, urethane, perlite/isocyanurate urethane composite, wood fiber/isocyanurate comp thickness.
Ply Sheet: Three or more layers Type G1 "G "GAFGLAS Ply 6".
Surfacing: "Weather Coat Emulsion" at 3 gal/sq.

3. Deck: NC Incline: 1/2
Insulation: One or two layers "Isotherm R", 4 in.
Ply Sheet: Any UL Classified gravel surfaced Class mat system.

4. Deck: NC Incline: 2
Insulation (Optional): Isocyanurate, perlite, isoc wood fiber and glass fiber, any thickness, mechani
Base Sheet: One ply Type G1 or G2, mechani mopped.
Ply Sheet: One or more plies Type G1 or G2, adh asphalt.
Surfacing: "GAF Premium Fibered Aluminum gal/sq or "GAF Weather Coat Emulsion", 3 gal/s

5. Deck: NC Incline: 1
Insulation (Optional): Perlite, glass fiber, polyiso mechanically fastened, any thickness.
Base/Ply Sheet: One or more plies Type G1 or ty place.

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3226 N. Bay Rd.