2014 ROOFING PRODUCT APPROVALS AND THE FLORIDA BUILDING CODE FIFTH EDITION (2014) ADVANCED

PRESENTED BY FRSA DIRECTOR OF TECHNICAL SERVICES
MARK ZEHNAL, CPRC
The Florida Building Code Requires product approvals for certain product categories of a building, for instance building envelope.

- FBC 110.3(9). Where impact resistant coverings or impact resistant systems are installed, the building official shall schedule adequate inspections of impact resistant coverings or impact resistant systems to determine the following:

  - The system indicated on the plans was installed.
  - The system is installed in accordance with the manufacturer’s installation instructions and the product approval.
  - The use of Florida Product Approvals and Miami-Dade Notices of Acceptance have been established through:
    - Florida Statute
    - Florida Administrative Code
553.842  Product evaluation and approval.—

(1) The commission shall adopt rules under ss. 120.536(1) and 120.54 to develop and implement a product evaluation and approval system that applies statewide to operate in coordination with the Florida Building Code. The commission may enter into contracts to provide for administration of the product evaluation and approval system. The commission’s rules and any applicable contract may provide that the payment of fees related to approvals be made directly to the administrator. Any fee paid by a product manufacturer shall be used only for funding the product evaluation and approval system. The product evaluation and approval system shall provide:
• 553.842 Product evaluation and approval.

• (8) The commission may adopt rules to approve the following types of entities that produce information on which product approvals are based. All of the following entities, including engineers and architects, must comply with a nationally recognized standard demonstrating independence or no conflict of interest:

• The information found in the product approvals is used to permit, install and inspect as per the requirements of the Florida Building Code.
8 (a) Evaluation entities approved pursuant to this paragraph. The commission shall specifically approve the National Evaluation Service, the International Association of Plumbing and Mechanical Officials Evaluation Service, the International Code Council Evaluation Services, and the Miami-Dade County Building Code Compliance Office Product Control. Architects and engineers licensed in this state are also approved to conduct product evaluations as provided in subsection (5).
61G20-3.002 Definitions.

(31) Structural component means any part or assembly of buildings that comprises the main wind force resisting system and components or cladding.
• 61G20-3.001 Scope.

• (1) Products in the following categories as defined by subcategories of subsection 61G20-3.002(31), F.A.C., shall be available for approval by the Commission pursuant to Rule 61G20-3.090, F.A.C., for use in the state:

• (a) Panel Walls;

• (b) Exterior Doors;

• (c) Roofing Products;

• (d) Skylights;

• (e) Windows;

• (f) Shutters; and

• (g) Structural Components.

• (2) This rule applies to approval of products and systems, which comprise the building envelope and structural frame, for compliance with the structural requirements of the Florida Building Code.
61G20-3.008 Approval of Product Evaluation Entities, Product Validation Entities, Testing Laboratories, Certification Agencies, Quality Assurance Agencies and Accreditation Bodies.

(1) Approved Product Evaluation Entities. Approval by the Commission is limited to the scope established by Section 553.842, F.S.

(a) The following entities are approved evaluation entities:

1. The National Evaluation Service (NES);
2. The Miami-Dade County Building Code Compliance Office Product Control Division (MDCBCCOPCD);
3. The International Code Council, International Evaluation Services (IES); and
4. The International Association of Plumbing and Mechanical Officials Evaluation Service (IAPMO).
SECTION 1504 PERFORMANCE REQUIREMENTS

1504.1 Wind resistance of roofs. Roof decks and roof coverings shall be designed for wind loads in accordance with Chapter 16 and Sections 1504.2, 1504.3 and 1504.4.

1504.3 Wind resistance of nonballasted roofs. Roof coverings installed on roofs in accordance with Section 1507 that are mechanically attached or adhered to the roof deck shall be designed to resist the design wind load pressures for components and cladding in accordance with Section 1609.

1504.5 Edge securement for low-slope roofs. Low-slope built-up, modified bitumen and single-ply roof system metal edge securement, except gutters, shall be designed and installed for wind loads in accordance with Chapter 16 and tested for resistance in accordance with Test Methods RE-1,RE-2 and RE-3 of ANSI/SPRI ES-1, or RAS 111, except Vult wind speed shall be determined from Figure 1609A, 1609B, or 1609C as applicable.

1504.9 Margin of Safety. A margin of safety of 2:1 shall be applied to all wind-uplift-resistance test results except when a margin of safety is specified in the test standard.

Exception: Asphalt shingles testing resulting in a miles per hour rating as required in Section 1507.2.7.
Who needs this information and what propose does it serve?

FBC 110.3(9). Where impact resistant coverings or impact resistant systems are installed, the building official shall schedule adequate inspections of impact resistant coverings or impact resistant systems to determine the following:

107.3.5 Minimum plan review criteria for buildings. The examination of the documents by the building official shall include the following minimum criteria and documents: a floor plan; site plan; foundation plan; floor/roof framing plan or truss layout; all fenestration penetrations; flashing; and rough opening dimensions; and all exterior elevations. Structural requirements shall include:

Commercial Buildings:
• **107.3.5 Minimum plan review criteria for buildings. Continued:**

• 8. **Structural requirements shall include:**
  - Soil conditions/analysis
  - Termite protection
  - **Design loads**
  - Wind requirements
  - Building envelope
  - **Impact resistant coverings or systems**
  - Structural calculations (if required)

• Foundation
• Flood requirements in accordance with Section 1612, including lowest floor elevations, enclosures, flood damage resistant materials
• Wall systems
• Floor systems
• **Roof systems**
• Threshold inspection plan
• Stair systems
• **107.3.5 Minimum plan review criteria for buildings. continued**

• **Residential (one- and two-family):**

• 6. Structural requirements shall include:

• Wall section from foundation through roof, **including assembly and materials connector tables wind requirements structural calculations (if required)**

• Flood hazard areas, flood zones, design flood elevations, lowest floor elevations, enclosures, equipment, and flood damage resistant materials

• **8. Impact resistant coverings or systems**
RELYING ON ROOFING COMPONENT PRODUCT APPROVALS IN COMPLIANCE WITH FLORIDA BUILDING CODE

- Who needs this information?
- Design Professionals:
  - Architects
  - Engineers
  - Contractors
  - Plan Reviewers and Inspectors
  - Insurance Providers
FLORIDA PRODUCT APPROVAL (FPA) IN COMPLIANCE WITH FLORIDA BUILDING CODE

- Owner of the FPA
- Description of Material or System
- FPA Number
- Revision Date
- Issuance Date
NOTICE OF ACCEPTANCE (NOA)

GAF Manufacturing Corp.
1301 Alpa Hq.
Wayne, NJ 07470

SCOPE:
This NOA is being issued to comply with the building code requirements. The product has been reviewed and approved by Miami-Dade County 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 any area other than Miami-Dade County) reserve the right to revoke the acceptance, if if 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: GAF Timberline® Prestige® HD, Timberline® Natural Shadow™, and Timberline® American Harvest® Shingles

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: 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: This NOA will occur after the expiration date or if there has been a revision or change in the material, any, and/or manufacture of the product or product. Notice of this NOA shall be recorded in any county, foreign, or any other jurisdiction, and the NOA shall be void if the product or material is no longer the same as described herein.

ADVERTISING: The NOA number is not required to be displayed in advertising literature. The expiration date of the NOA is 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 distributor and shall be available for inspection at the job site on request of the Building Official.

This review and approval NOA dated December 13, 2022, and consists of 5 pages through 8. The reviewed documentation was reviewed by Alex Tigges.
LOCATING FL PRODUCT APPROVAL’S AND MIAMI-DADE NOA’S

- Manufacturers have most technical documents online
- Supply House
- Florida Building Code Online www.floridabuilding.org
- Miami-Dade Product Control Search www.miamidade.gov/building/pc-search
LOCATING A FLORIDA PRODUCT APPROVAL

• Go to www.floridabuilding.org

• Locate Product Approval Box
LOCATING A MIAMI-DADE NOA

Go to http://www.miamidade.gov/building/pc-search_app.asp

- Locate Product Control Search
- Basic Search
- Advanced Search
IDENTIFY THE ROOF SYSTEM COMPLIANCE WITH FLORIDA BUILDING CODE CHAPTER 15 AND RESIDENTIAL CODE CHAPTER 9

- Shingle (FBC-1507.2, FRC – R905.2)
- Cement/Clay Tile (FBC- 1507.3, FRC – R905.3)
- Metal Panel (FBC- 1507.4, FRC – R905.10)
- Metal Shingle(FBC- 1507.5, FRC – R905.4)
- Built-up (FBC- 1507.10, FRC – R905.9)
- Single Ply (FBC- 1507.13, FRC – R905.13)
- Spray Polyurethane Foam (FBC- 1507.14, FRC – R905.14)
• Depends on the system type
  • Product Description
  • Manufacturing Plants
  • Limitations (NOA no restrictions, FPA not for use in HVHZ)
  • Installation Description (Singular & Plural)
  • Product Description (Singular & Plural)
  • Limitations
  • Installation
REQUIRED FLORIDA BUILDING CODE DESIGN, INSTALLATION AND INSPECTION INFORMATION
FOUND IN FLORIDA PRODUCT APPROVALS AND MIAMI-DADE NOA'S

• Let’s look at the sample FPA and NOA
• Shingles (FL101024, 11-1122.04)
  • Product Description
  • Manufacturing Plants
  • Limitations (NOA no restrictions, FPA not for use in HVHZ)
  • Installation
  • Other Roof Components that require additional FPA or NOA
REQUIRED FLORIDA BUILDING CODE DESIGN, INSTALLATION AND INSPECTION INFORMATION FOUND IN FLORIDA PRODUCT APPROVALS AND MIAMI-DADE NOA'S

- Let’s look at the sample FPA and NOA
- Tile (FL7473-R3, 11-0321.03)
  - Description (Singular & Plural)
  - Product Description (Singular & Plural)
- Limitations
- Installation
- Other Roof Components that require additional FPA or NOA
KNOWING YOUR PERMIT & SELECTING THE IMPORTANT STUFF IN COMPLIANCE WITH THE FLORIDA BUILDING CODE

- Know the local Authority Having Jurisdiction (AHJ) permit requirements
- There are literally hundreds of building departments across the State of Florida
- Each AHJ has their own set of requirements and there may be local ordinances to consider
- May need more than one NOA or FPA to get permit issued (Roof Components)
CLOSING THE SHOW

• Questions