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Product Evaluation Report

of

YKK AP America, Inc.
50 HL Low Pressure Outswing Entrance Doors
(HVHZ) (Impact)

for

Florida Product Approval

FL# FL16981

Report No. 6964

Current Florida Building Code

Method:	**1 – D (Engineering Evaluation)**
Category:	**Exterior Doors**
Sub – Category:	**Swinging Exterior Door Assemblies**
Product:	**50 HL Low Pressure Outswing Entrance Doors**
Materials:	**Aluminum 6063-T5**
Product Dimensions:	**See Installation Instructions, YKK033**

Prepared for:
YKK AP America, Inc.
1229 Hwy 441 Bypass
Dublin, GA 31021

Prepared by:
Hermes F. Norero, P.E.
Florida Professional Engineer # 73778
Date: 07/09/2020

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Digitally signed by Hermes F Norero
Reason: I am approving this document
Date: 2020.08.25 18:29:17 -04'00'

HERMES F. NORERO
LICENSE
No. 73778
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Hermes F. Norero, P.E.
Florida No. 73778

Manufacturer:	**YKK AP America, Inc.**
Product Category:	Exterior Doors
Product Sub-Category:	Swinging Exterior Door Assemblies
Compliance Method:	State Product Approval Method (1)(d)
Product Name:	**50 HL Low Pressure Outswing Entrance Doors (HVHZ) (Impact)**

Scope: This is a Product Evaluation Report issued by Hermes F. Norero, P.E. (FL # 73778) for **YKK AP America, Inc.** based on Method 1d of the State of Florida Product Approval, Department of Business and Professional Regulation - Florida Building Commission.

Hermes F. Norero, P.E. does not have nor will acquire financial interest in the company manufacturing or distributing the product or in any other entity involved in the approval process of the product named herein.

This product has been evaluated for use in locations adhering to the current Florida Building Code.

See Installation Instructions **YKK033**, signed and sealed by Hermes F. Norero, P.E. (FL # 73778) for specific use parameters.

Limits of Use:

1. This product has been evaluated and is in compliance with the current Florida Building Code, **including** the "High Velocity Hurricane Zone" (HVHZ).
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment into substrate material shall be beyond wall dressing or stucco.
3. When used in areas requiring wind borne debris protection this product complies with Chapter 16 of the current Florida Building Code and **does not require** an impact resistant covering.
4. Site conditions that deviate from the details of drawing **YKK033** require further engineering analysis by a licensed engineer or registered architect.
5. See Installation Instructions **YKK033** for size and design pressure limitations.

Quality Assurance: The manufacturer has demonstrated compliance of manufacture of products in accordance with the current Florida Building Code for manufacturing under a quality assurance program audited by an approved quality assurance entity through **Architectural Testing, Inc.** (FBC Organization # QUA1844).

Performance Standards: The product described herein has been evaluated per:

- TAS 201-94
- TAS 202-94
- TAS 203-94
- ASTM E1886-13a
- ASTM E1996-17

Referenced Data:

1. Product Testing performed by **Hurricane Test Laboratory, LLC.**
   (FBC Organization # TST3892)
   Report #: G231-0103-11, Report Date: 04/28/11
   Report Signed and Sealed by Vinu J. Abraham, FL PE No. 53820

2. Product Testing performed by **Architectural Testing, Inc.**
   (FBC Organization # TST3892)
   Report #: D5887.01-550-18, Report Date: 05/21/14
   Report #: D5887.02-550-18, Report Date: 07/10/14
   Report #: D5887.03-550-18, Report Date: 05/21/14
   Report #: D5887.04-550-18, Report Date: 05/21/14
   Report #: D5887.07-550-18, Report Date: 07/10/14
   Reports Signed and Sealed by Shawn G. Collins, FL PE No. 70655

3. Quality Assruance
   Architectural Testing, Inc.
   (FBC Organization # QUA1844)

4. Material Certification
   Miami Dade RER – Product Control Section
   Eastman Chemical Company (Previously Solutia)
   Saflex Interlayer

5. Material Certification
   Miami Dade RER – Product Control Section
   Kuraray America (Previously E.I. DuPont De Nemours & Co. Inc.)
   Trosifol PVB Interlayer
   Sentryglas Interlayer

Equivalence of Test Standards:

Various test standards have been evaluated for differences in test methodology, if any, between tested editions of the test standards listed below and those editions referenced in the current Florida Building Code. YKK AP America, Inc. has tested their products to the following test standard edition(s):

1) ASTM E1886-05
2) ASTM E1996-06

Chapter 35 of the current Florida Building Code references the following editions of the above mentioned test standards:

1) ASTM E1886-13a
2) ASTM E1996-17

After review of the above mentioned referenced standards and editions, it has been found that the results and tests carried out meet the requirements for compliance. All referenced standards have been found to be equivalent.

Installation:

Refer to Installation Instructions (**YKK033**) for anchor spacing and more details of the installation requirements.

Design Pressure:

Refer to Installation Instructions (**YKK033**) for design pressures based on size, configuration, and glass types.