



# BUILDING DROPS

A Perfect Solution in Every Drop!  
Certificate of Authorization: 29578

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## Product Evaluation Report

of

**Nudo Products, Inc.**  
**Endurex 555 Insulated Glazing and Curtain Wall Panel**

for

**Florida Product Approval**

**FL# FL38436**

**Report No. 7528**

**Current Florida Building Code**

<b>Method:</b>	<b>1 – D (Engineering Evaluation)</b>
<b>Category:</b>	<b>Windows</b>
<b>Sub – Category:</b>	<b>Fixed</b>
<b>Product:</b>	<b>Endurex 555 Insulated Glazing and Curtain Wall Panel</b>
<b>Material:</b>	<b>Aluminum 6063-T6</b>
<b>Product Dimensions:</b>	<b>See Installation Instructions, NDO002</b>

**Prepared for:**

**Nudo Products, Inc.**  
**1500 Taylor Avenue**  
**Springfield, IL 62703**

**Prepared by:**

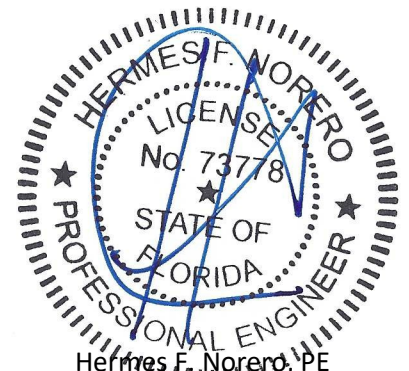
**Hermes F. Norero, P.E.**

Florida Professional Engineer # 73778

Date: 04/05/2021

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Hermes F. Norero, PE  
Florida PE No. 73778



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**Manufacturer:** Nudo Products, Inc.

**Product Category:** Windows

**Product Sub-Category:** Fixed

**Compliance Method:** State Product Approval Method 1(d)

**Product Name:** **Endurex 555 Insulated Glazing and Curtain Wall Panel**

**Scope:** This is a Product Evaluation Report issued by Hermes F. Norero, P.E. (FL # 73778) for **Nudo Products, 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 Florida Building Code.

See Installation Instructions **NDO002**, 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 attachment shall be as shown on details within **NDO002**.
3. When used in areas requiring wind borne debris protection this product complies with Chapter 16 of the Florida Building Code and **does not require** an impact resistant covering in areas requiring Impact Resistance.
4. Site conditions that deviate from the details of drawing **NDO002**, require further engineering analysis by a licensed engineer or registered architect.
5. See Installation Instructions **NDO002**, for size and design pressure limitations.



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**Quality Assurance:** The manufacturer has demonstrated compliance of products in accordance with the Florida Building Code for manufacturing under a quality assurance program audited by an approved quality assurance entity through **National Accreditation and Management Institute (FBC Organization #: QUA1789)**.

**Performance Standards:** The product described herein has been tested per:

- TAS 201-94
- TAS 202-94
- TAS 203-94

**Referenced Data:**

1. Product Testing performed by **Intertek – York (ATI)**  
(FBC Organization # TST1558)  
Report #: D4848.01-109-18      Report Date: 03/17/14  
TAS Reports Signed and Sealed by Michael D. Stremmel, FL PE No. 65868
2. Material Testing performed by **Intertek – York (ATI)**  
(FBC Organization # TST1558)  
**LP-S6-8-GRAY-FR-KAL, Fiber Reinforced Plastic, for NUDO Products**  
Report #: E0226.01-106-18      Report Date: 08/28/14

Results:

- 1) ASTM D638-03, *Standard Test Method for Tensile Properties of Plastics*
  - a. Result Min Tensile Strength: 20,087 PSF
- 2) ASTM D1929-96(01), *Standard Test Method for Determining Ignition Temperature of Plastics*
  - a. Result: Self Ignition = 770 ° F (410 °C)
  - b. Requirement: Self Ignition  $\geq$  650 ° F
  - c. **PASS**
- 3) ASTM D2843-99(04), *Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics*
  - a. Result: Smoke Density Rating = 56.0
  - b. Requirement: Smoke Density Rating  $\leq$  75
  - c. **PASS**
- 4) ASTM D635-03, *Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position*
  - a. Result: Class CC1
  - b. Requirement: CC1 or CC2
  - c. **PASS**

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### 3. Material Data

#### **Manufacturer Provided Data from DOW for STYROFOAM XPS Insulation**

- a. Flame Spread Index per ASTM E84 = 5 < 75, **PASS**
- b. Smoke Density Index per ASTM E84 = 165 < 450, **PASS**

**Installation:** Refer to Installation Instructions (**NDO002**) for more details of the installation details.

**Design Pressure:** +70 / -70 psf

#### **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. The manufacturer has tested their products to the following test standard edition(s):

- 1) ASTM D1929-96(01)
- 2) ASTM D2843-99(04)
- 3) ASTM D635-03

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

- 1) ASTM D1929-16
- 2) ASTM D2843-16
- 3) ASTM D635-14

After review of the above mentioned referenced standards and editions, it has been found that no significant technical changes have been made to the test standards that would affect the results. All referenced standards have been found to be equivalent.

Hermes F. Norero, PE

Florida PE No. 73778

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