Product Evaluation Report

Product Manufacturer	Product Name, Model, Series and/or Description
Valda 90 OOD Valda Production Facility ul. "Shemshevsko Shose" 5002 Western Industrial Zone Veliko Tarnovo, Bulgaria	Series Vision Guard Vinyl Picture Window Large Missile Impact

Code: Current Edition of the Florida Building Code including the 8th Edition (2023) Florida Building Code

Compliance Methods:

- Product Approval Rule 61G20-3.005(1)(a) – Certification Mark or Listing

Product Testing, Materials and Certification:

- NCTL Test Report No. NCTL-210-4218-01, dated 11/16/2020
  - Series Vision Guard Vinyl Picture Window - Large Missile Impact
  - Test Standards
    - TAS 201-94
    - TAS 202-94
    - TAS 203-94
  - Design Pressure = +/-65 psf
- NCTL Test Report No. NCTL-210-4218-01A, dated 6/8/2021
  - Series Vision Guard Vinyl Impact Dual Action (Tilt-Turn) Window - Large Missile Impact
  - Test Standards
    - AAMA/WDMA/CSA 101/I.S.2/A440-11
    - ASTM E1886-12/13a
    - ASTM E1996-12a/14a
  - Design Pressure = +/-65 psf

- Certification by National Accreditation and Management Institute, Inc.

- Impact Glazing Interlayer: Kuraray America SentryGlas (SG) per current Miami Dade Notice of Acceptance (N.O.A.) which can be found here.

- PVC Lineal Certification and Testing
  - Certification per AAMA 303, FGIA/AAMA Certified Profile Licensees, dated 10/19/23, Manufacturer ID DEP-1 and DEP-2.
  - Test report on Rate of Burning, Ignition Temperature, Density of Smoke, Surface Burning Characteristics, Accelerated Weathering and Tensile Properties Test of PVC Extrusions, prepared by ETC Laboratories, report# ETC 97-264-4091.0, dated 04/21/1998, signed and sealed by J. L. Doldan, P .E.
    - Test results meet the requirements of Section 2615 of the 8th Edition (2023) Florida Building Code.
    - See below for results.

PVC Lineal Plastics Testing		
Description	**Test**	**Properties**
Rate of Burning	ASTM D635-96	Class CC1
Self-Ignition temperature	ASTM D1929-96	925°F > 650°F
Average Smoke Density Rating	ASTM D2843-93	43<75
Flame Spread Index	ASTM E84-95b	26.2 < 75
Xenon Arch Light Exposure (Accelerated Weathering)	ASTM G155 (supersedes ASTM G26) ASTM G26-95	4,500 Hours
Tensile Strength (Difference: *Exposed & Unexposed)	ASTM D638-96	4.98% < 10%
*Exposed per Section 2615 of The Florida Building Code.		

Product Installation Instructions:

- Valda 90 OOD, Series Vision Guard Vinyl Picture Window - Large Missile Impact, Installation Instructions Drawing No. NL-0143, dated 5/3/21, signed and sealed by Robert J. Amoruso, P.E.

Performance Testing:

- TAS 201-94
- TAS 202-94
- TAS 203-94
- AAMA/WDMA/CSA 101/I.S.2/A440-11
- ASTM E1886-12/13a
- ASTM E1996-12a/14a

Engineering Analysis: The following engineering and/or rational analysis/calculations have been performed.

- Anchorage has been verified by calculation prepared by Robert J. Amoruso, P.E. in accordance with the current edition of the Florida Building Code.
- Window glazing verified using ASTM E1300-12AE1.

Limitations & Conditions of Use:

- The following product has been evaluated for use inside the HVHZ (High Velocity Hurricane Zone).
  - Valda 90 OOD, Series Vision Guard Vinyl Picture Window - Large Missile Impact
- The following product is Impact Resistance and will not require an impact protective device when used in wind borne debris regions.
  - Valda 90 OOD, Series Vision Guard Vinyl Picture Window - Large Missile Impact
- Refer to Product Installation Instructions noted above for:
  - Maximum allowable wind loads at related maximum allowable size(s).

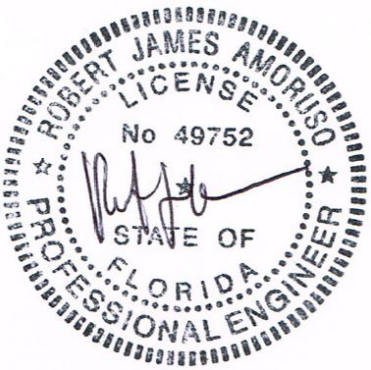
- Overall dimensions and material/grade of main product components, accessories, etc.
- Illustrated diagrams of the attachment of the product to the structure.
- Anchor type(s), size(s), substrate(s), embedment, edge distance, and spacing/locations.

- Site wind pressures shall be determined by a licensed professional engineer in accordance with the current edition of the Florida Building Code (and/or ASCE 7 as referenced in the current edition of the Florida Building Code) for components and cladding based on allowable stress design.
- Site conditions not covered in this product evaluation document are subject to additional engineering analysis by a licensed professional engineer or registered architect as required by the authority having jurisdiction.
- Adequacy of the existing structural substrates as a main wind force resisting system capable of withstanding and transferring applied product loads to the foundation is the responsibility of the licensed professional engineer or registered architect acting as the design professional of record for the project of installation.

Certificate of Independence per Product Approval Rule 61G20-3.009

Robert J. Amoruso, P.E. does not have, nor will acquire, any financial interest in the company manufacturing or distributing product(s) covered by this Product Evaluation Report.

Robert J. Amoruso, P.E. does not have, nor will acquire any financial interest in any other entity involved in the approval process or testing of the product(s) covered by this Product Evaluation Report.



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Date: 2023.11.29 07:24:20 -05'00'

Evaluated by:
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