Equivalency 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 Impact Dual Action (Tilt-Turn) Window Large Missile Impact

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

Compliance Method: Product Approval Rule 61G20-3.015(4)(d) – Equivalency of Standards

Product Testing, Materials and Certification:

- NCTL Test Report No. NCTL-210-4218-02, dated 11/16/2020
  - Series Vision Guard Vinyl Impact Dual Action (Tilt-Turn) Window - Large Missile Impact
  - Test Standards
    - TAS 201-94
    - TAS 202-94
    - TAS 203-94
  - Design Pressure = +/-65 psf
- NCTL Test Report No. NCTL-210-4218-02A, 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/A440-17
    - 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.) MD N.O.A. SentryGlas (SG) 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.		

Performance Testing:

- TAS 201-94
- TAS 202-94
- TAS 203-94
- AAMA/WDMA/CSA 101/I.S.2/A440-17
- AAMA/WDMA/CSA 101/I.S.2/A440-11
- ASTM E1886-12/13a
- ASTM E1996-12a/14a

Equivalency Evaluation of AAMA/ASTM Performance and Plastics Testing:

- Testing conducted to AAMA and ASTM standards listed above have been reviewed against the current requirements of the Florida Building Code including the 8th Edition (2023) FBC and found to be in conformance with the following 2023 FBC Standards.
    - AAMA/WDMA/CSA 101/I.S.2/A440-17
    - AAMA/WDMA/CSA 101/I.S.2/A440-11
    - ASTM E1886-13a
    - ASTM E1996-14a
    - ASTM D635-14
    - ASTM D1929-16
    - ASTM D2843-16
    - ASTM D638-03
    - ASTM E84-18b
    - ASTM G155-13

Equivalency Evaluation of TAS 201, TAS 202 and TAS 203 Performance Testing:

- Testing conducted to TAS 201, TAS 202 and TAS 203 have been reviewed against the current requirements of the Florida Building Code including the 8th Edition (2023) FBC and found to be in conformance.

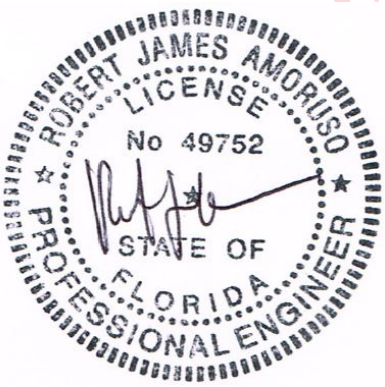
Equivalency Evaluation of Miami-Dade NOA for Kuraray America SentryGlas:

- The currently issued Miami-Dade NOA for component approval to the Florida Building Code for Kuraray America's SentryGlas Laminating Interlayer was reviewed and is in compliance with the 8th Edition (2023) Florida Building Code.
- Kuraray America Miami-Dade NOA can be found here.

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.



Digitally signed by Robert J Amoruso
Date: 2023.11.29 07:09:07 -05'00'

Evaluated by:
Robert J. Amoruso, P.E.
FL P.E. License No. 49752

Robert J. Amoruso, P.E., 734 S Center St., Ormond Beach, FL 32174
rjaengpe@gmail.com| FBPE FL P.E. No. 49752