

PRODUCT EVALUATION

Endurance Picture Windows

REPORT TO:

**VPI QUALITY WINDOWS
3420 E. FERRY AVENUE
SPOKANE, WASHINGTON 99202**

REPORT NUMBER: NCTL-110-25164-4-R1
REVISION 1 DATE: 10/16/23

This item has been digitally signed and sealed by Michael D. Stremmel, PE on the date adjacent to the seal.

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Micheal D. Stremmel, PE
FL PE 65868
FL REG 37122

Subject: Endurance Picture Windows
VPI Quality Windows
3420 E. Ferry Avenue
Spokane, Washington 99202

Scope: Product Evaluation per Chapter 61G20-3.005(1)(d) Florida Administrative Code, Evaluation report from a Florida Registered Architect or a Licensed Florida Professional Engineer.

Building Code Compliance: This product has demonstrated compliance with the current edition of the Florida Building Code, Building:
§1709.5 Exterior window and door assemblies
§2404 Wind, Snow, Seismic and Dead Loads on Glass

Performance Standards: AAMA/WDMA/CSA 101/I.S.2/A440-17
ASTM E1300-12ae1

Product Description: Window Frame Extruded Rigid Poly (Vinyl Chloride) (PVC)
Miter-cut corners and thermally welded.

Integral Mullion Extruded Rigid Poly (Vinyl Chloride) (PVC)
Coped and butted to head and sill. Secured with two (2) #10x3-1/2" screws and two (2) #10x2-1/2" screws at each end.

Glazing Validate Glazing with ASTM E1300

Glazing Type	Glazing Construction
G1 (Insulating Glass)	5/32" Annealed Glass to Exterior 5/32" Annealed Glass to Interior

Exterior glazed against double-sided adhesive tape and secured with rigid vinyl glazing bead. 1/2" bite.

Anchorage Various anchorages (see *Installation*).

For additional product information see Appendix A.

Installation: Wood: Minimum Spruce-Pine-Fir 2x (G = 0.42).
#8 Wood Screw (shall conform to ANSI/ASME B18.6.1
and be corrosion resistant) or 6d Nail (shall conform to ASTM F1667
and be corrosion resistant).

Steel Stud: Minimum 18 gauge (0.043" thick) 33 KSI steel stud.
#10-16 TEKS screw (see ICC ESR 1976).

Installation shall follow manufacturer's instructions, product approvals and
the referenced installation drawings.

Limitations of Use:

Product	Maximum Design Pressures	Impact Resistance	Maximum Overall Size	Maximum Glazing Size
Endurance Picture Window (Glazing Type G1)	+50/-50 psf	N/A	48" x 72"	44-5/16" x 68-1/8"

Individual window sizes in accordance with FBC 1709.5:

		Design Pressure (psf)						
		Window Width (inch)						
		24	30	36	42	48	54	60
Window Height (inch)	48	+50.0/-88.9	+50.0/-77.6	+50.0/-66.7	+50.0/-57.1	+/-50.0	+/-45.0	+/-41.7
	54	+50.0/-85.7	+50.0/-73.8	+50.0/-66.7	+50.0/-57.1	+/-50.0	+/-44.4	+/-40.4
	60	+50.0/-83.3	+50.0/-71.1	+50.0/-63.5	+50.0/-57.1	+/-50.0	+/-44.4	
	66	+50.0/-81.5	+50.0/-69.0	+50.0/-61.1	+50.0/-55.9	+/-50.0		
	72	+50.0/-80.0	+50.0/-67.4	+50.0/-59.3	+50.0/-53.8	+/-50.0		
	78	+50.0/-78.8	+50.0/-66.0	+50.0/-57.8	+50.0/-52.1			
	84	+50.0/-77.8	+50.0/-64.9	+50.0/-56.6				
	90	+50.0/-76.9	+50.0/-64.0	+50.0/-55.6				
	96	+50.0/-76.2	+50.0/-63.2	+50.0/-54.7				
	102	+50.0/-75.6	+50.0/-62.5					
108	+50.0/-75.0	+50.0/-61.9						

A > 24 ft²

2-Wide and 3-Wide window sizes in accordance with FBC 1709.5:

		Design Pressure (psf)				
		Panel Width, W (inch)				
		24	30	36	42	48
Panel Height, H (inch)	48	+50.0/-87.5	+50.0/-76.4	+50.0/-70.0	+50.0/-66.7	+50.0/-65.6
	54	+50.0/-75.0	+50.0/-64.6	+50.0/-58.3	+50.0/-54.5	+50.0/-52.5
	60	+50.0/-65.6	+50.0/-56.0	+/-50.0	+/-45.1	+/-42.0
	66	+50.0/-51.4	+/-42.3	+/-36.6	+/-32.8	+/-30.3
	72	+/-39.2	+/-32.2	+/-27.6	+/-24.6	+/-22.5

Products have not been tested for windborne debris resistance and will require protective devices (i.e., shutters) if installed in a windborne debris region.

Products are not approved for use in High Velocity Hurricane Zone (HVHZ).

Supporting Evidence: Test Report N3980.01-901-44 (AAMA/WDMA/CSA 101/I.S.2/A440-17)
Revision -, 03/21/22
Intertek. Kent, Washington (TST4310)

Calculation Report NCTL-110-25164-3
Revision 1, 10/16/23
Micheal D. Stremmel, PE (FL PE 65868)

Certification of: In accordance with Rule 61G20-3 Florida Administrative Code,

Independence: Molimo, LLC hereby certifies the following:

1. Molimo, LLC does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products tested or labeled by the agency.
2. Molimo, LLC is not owned, operated or controlled by any company manufacturing or distributing products it tests or labels.
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4. Micheal D. Stremmel, P.E does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.

Reference Drawings: *Endurance PW – non-Impact.* Drawing 25164-1-1002. Revision 1, 10/16/23.

Revision Log

<u>Identification</u>	<u>Date</u>	<u>Page & Revision</u>
Original Issue	05/18/22	Not Applicable
Revision 1	10/16/23	Updated Analysis For 8 th Edition of the FBC

Appendix A – Detailed Product Description

Glazing Details: Exterior glazed against double-sided adhesive tape and secured with rigid vinyl glazing bead. 1/2" bite.

Frame Construction: Extruded Rigid Poly (Vinyl Chloride) (PVC). Miter-cut corners and thermally welded.

Integral Mullion Construction: Extruded Rigid Poly (Vinyl Chloride) (PVC). Coped and butted to head and sill. Secured with two (2) #10x3-1/2" screws and two (2) #10x2-1/2" screws at each end.

Drainage: 1-1/2"x1/4" weep slot with cover; at sill; one each end
3/8"x3/16" weep slot; at sill; 1/4" from each interior corner
1-1/4" x 3/16" weep slot; at sill; interior pocket; 2-7/8" from each interior corner

Reinforcement: Sill: Roll formed steel
Integral Mullion: Roll formed steel