

FENESTRATION TESTING LABORATORY

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TESTED FOR

FLEETWOOD ALUMINUM PRODUCTS, INC.
2485 Railroad Street
Corona, CA 91720

Report No. : A00C-077
Date : August 23, 2000
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1.0 PURPOSE

The purpose of this report is to present the testing methods employed and the test results obtained during the performance testing of one (1) Thermally Broken Aluminum Casement Window described in paragraph 4.0 of this report.

2.0 TEST REFERENCES

- 2.1 Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors.
AAMA/NWWDA 101/I.S.2 - 97: C - C 35 72 x 72
- 2.2 CAWM 301 - 90 Forced Entry Resistance Tests for Windows.

3.0 SUMMARY

The test results in paragraphs 5.0 and 6.0 indicate that the test sample described in paragraph 4.0 of this report complied with the performance requirements of the above referenced specifications.

4.0 SAMPLE SUBMITTED

<u>SERIES:</u>	YUKON 5000 Casement Window
<u>CONFIGURATION:</u>	X/O Casement with Adjacent fixed lite in a common frame
<u>FRAME SIZE:</u>	72.00" x 71.75"
<u>VENT SIZES:</u>	35.25" x 70.63"
<u>FIXED SIZE:</u>	32.25" x 68.00" Daylight opening
<u>GLASS:</u>	Both lites consisted of 3/16" single glazed, annealed glass.
<u>GLAZING:</u>	Both lites were glazed from the outside, retained in the opening with an 8" bead of silicone at each corner and pressed against the hollow bulb vinyl with aluminum snap-in glass stops.
<u>WEEPAGE:</u>	The sill front face contained a 1" x 3/16" notch 3" in from each end and two (2) at the midspan. The vent panel was notched on the bulb vinyl in line with the notch at the sill.
<u>WEATHERING:</u>	The frame, vent and glass stops contained a bulb vinyl strip full perimeter. The bulb vinyl sealing the vent was foam-filled, and the remaining bulb vinyl was hollow.

HARDWARE: The vent panel lock stile contained a metal cam lock handle 16" in from each end and secured with a pair of screws. When locked, the lock engaged a metal keeper secured to the mullion with a pair of screws. The vent panel was fastened to the frame with four-bar hinges, one (1) on the head and one (1) on the sill.

CONSTRUCTION: The frame and vent panel miter cut corners were keyed and mig-welded. The mullion was welded to the frame at each end. Each lite rested on a pair of 3/8" thick setting blocks set at quarter points.

CAULKING:

- a) The frame and vent panel corners were caulked full profile.
- b) The mullion was caulked to the frame at each end.
- c) The frame was caulked to the wooden buck full perimeter on the inside and on the outside.

ANCHORING: The block frame was secured to the wooden buck with screws every 12" full perimeter.

5.0 TEST PROCEDURES AND RESULTS

5.1 All testing procedures were performed in accordance with the performance requirements of the test specifications referenced in paragraph 2.0 of this report.

5.2 TEST RESULTS PARAGRAPH

<u>TEST RESULTS PARAGRAPH</u>	<u>TEST DESCRIPTION</u>	<u>MEASURED</u>	<u>ALLOWED</u>
2.1.2	Air Infiltration (ASTM E 283) 1.57 PSF The tested specimen exceeds the performance requirements specified in AAMA/NWDA 101/1.S.2-97 for Air Infiltration.	0.02 CFM/Ft ²	0.3 CFM/Ft ²
2.1.3	Water Penetration (ASTM E 547) 4.50 PSF Internal screen	No Leakage	No Leakage
2.1.4	Uniform Load Structural (ASTM E 330) 45.0 PSF POS 45.0 PSF NEG	0.06" 0.06"	0.29" Set 0.29" Set
2.2.5.6.1	Vertical Deflection Test 60 lbf.	0.15" Defl.	0.73" Deflection

5.3 OPTIONAL PERFORMANCE GRADES

4.3	Water Penetration (ASTM E 547) 5.25 PSF Internal screen	No Leakage	No Leakage
2.1.4	Uniform Load Structural (ASTM E 330) 52.5 PSF POS 52.5 PSF NEG	0.06" 0.06"	0.29" Set 0.29" Set

6.0 2.1.8 CAWM 301 - 90 FORCED ENTRY RESISTANCE TEST RESULTS

2.4.2 Type "II" Window

	<u>TEST</u>	<u>RESULTS</u>	<u>DESCRIPTION</u>
5.2.1		Passed	Disassembly
5.2.2	A	Passed	With swinging sash in normal position, 100# load within three (3) inches of each end of the member which is opposite the hinged side, in direction perpendicular to the plane of the glass that would tend to open the window.
5.2.3	B	Passed	Test A and simultaneous load of 100# on the outside within one (1) inch of each end of the member which is opposite the hinged side, in a direction parallel to the plane of the glass which would tend to disengage the lock.
5.2.4	C	Passed	With the swinging sash in normal position, 200# on the member containing the locking device, within six (6) inches of the locking device, in direction perpendicular to the plane of the glass which would tend to open the window, while simultaneous load of 100# on the outside within one (1) inch of each end of the member which is opposite the hinged side, in a direction parallel to the plane of the glass which would tend to disengage lock.
5.2.5	E	Passed	Hand and Tool Manipulation.

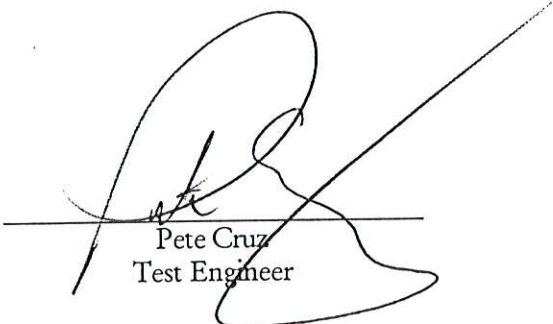
For a complete description of the tested sample refer to the attached cross section drawings.

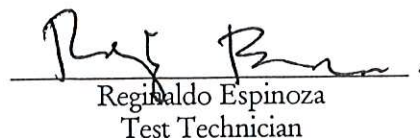
Assembly and die drawings of frame members are on file and have been compared to the sample submitted. Test sample sections, drawings and a copy of this report will be retained at the test laboratory for four years.

This test report may not be modified in any way without the written consent of Fenestration Testing Laboratory.

The above test results were obtained by using the applicable ASTM and CAWM Test Methods. This report does not constitute Certification of this product. Certification can only be granted by an approved Administrator and/or Validator.

Testing Completed: August 23, 2000
Report Completed: August 23, 2000


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