FENESTRATION
TESTING
LABORATORY

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**TESTED FOR**

**Fleetwood Aluminum Products, Inc.**
2485 Railroad Street
Corona, CA 91720

Report No. : A97F-161
Date : March 02, 1998


## 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 Fixed 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: **F - HC 60** 73 x 73 (with annealed glass)
**F - HC 75** 73 x 73 (with tempered glass)

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

**SERIES:** **Aspen 530-T OG Fixed Window**

**CONFIGURATION:** **O**

**FRAME SIZE:** 72.50" x 72.50"

**FIXED SIZE:** 69.00" x 69.00" Daylight Opening.

**GLASS:** For **HC 60**, the I.G. Unit was 1" overall with 1/4" annealed glass on both sides and a 1/2" air spacer.

For **HC 75**, the I.G. Unit was 1" overall with 1/4" tempered glass on both sides and a 1/2" air spacer.

**GLAZING:** The I.G. Unit was outside glazed onto bulb vinyl full perimeter on the frame and silicone 2" each way from each corner. A setting block was 16" from each end of the sill. Aluminum snap-in glass stop was applied full perimeter from the outside. The stop contained a strip of hollow bulb vinyl.

**WEEPAGE:** The sill contained a 1/4" diameter weep at each end.

**WEATHERING:** A strip of hollow bulb vinyl was used full perimeter on the frame and on the glass stop.

**HARDWARE:** None.

**CONSTRUCTION:** The frame corners were mechanically joined with a pair of screws per corner and keyed with an aluminum angle 2¾" x 2¾" x 9/16" thick and 1/2" wide.

**CAULKING:** All frame corners were caulked full profile. The window was caulked to the buck full perimeter on the exterior and interior.

**ANCHORING:** The frame was fastened in a 2" x 6" wooden buck with a pair of #10 x 1½" screws, five per side.

## 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 | TEST DESCRIPTION | MEASURED | ALLOWED |
|---|---|---|---|
| 2.1.2 | Air Infiltration (ASTM E 283) | | |
| | 6.24 PSF | 0.01 CFM/Ft$^2$ | 0.3 CFM/Ft$^2$ |
| | The tested specimen exceeds the performance requirements specified in AAMA/NWWDA 101/I.S.2 - 97 for Air Infiltration. | | |
| 2.1.3 | Water Penetration (ASTM E 547 & ASTM E 331) | | |
| | 6.00 PSF | No Leakage | No Leakage |
| 2.1.4 | Uniform Load Structural (ASTM E 330) | | |
| | 60.0 PSF POS | No Damage | No Damage |
| | 60.0 PSF NEG | No Damage | No Damage |

## 5.3 OPTIONAL PERFORMANCE GRADES

| | | | |
|---|---|---|---|
| 4.3 | Water Penetration (ASTM E 547 & ASTM E 331) | | |
| | 15.0 PSF | No Leakage | No Leakage |
| | With annealed and tempered glass. | | |
| 4.4.2 | Uniform Load Structural (ASTM E 330) | | |
| With Annealed Glass: | 90.0 PSF POS | No Damage | No Damage |
| | 90.0 PSF NEG | No Damage | No Damage |
| With Tempered Glass: | 112.5 PSF POS | No Damage | No Damage |
| | 112.5 PSF NEG | No Damage | No Damage |

**6.0** 2.1.8 **CAWM 301 - 90 FORCED ENTRY RESISTANCE TEST RESULTS**
2.4.5 Type "V" Window

| | TEST | RESULTS | DESCRIPTION |
|---|---|---|---|
| 5.4.1 | **A** | Passed | Disassembly Test |
| 5.4.2 | **B** | 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.

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/Validator.

Testing Completed: February 24, 1998
Report Completed: March 02, 1998

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