

TESTED FOR

FLEETWOOD ALUMINUM PRODUCTS, INC.
2485 Railroad
Corona, CA 91718

Report No. : A98D-097
Date : July 22, 1998
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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) **Aluminum Sliding Glass Door** 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/L.S.2 - 97: **SGD - R 15** 180 x 144

2.2 CAWM 300 - 96 Forced Entry Resistance for Sliding Glass Doors.

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: **3070 EX Sliding Glass Door**

CONFIGURATION: **XXO**

FRAME SIZE: 180.00" x 144.00"

SASH SIZE: First sliding panel - 61.75" x 142.25"
Center sliding panel - 61.00" x 142.25"

FIXED SIZE: 59.75" x 142.25"

GLASS: All panels contained 1/4" tempered glass.

GLAZING: All panels were channel glazed with vinyl gasket.

WEEPAGE: The sill sat on a sill pan that captured the water draining through the sill weep slots. Refer to the attached drawings for weep sizes and location and required sill pan size.

WEATHERING: Refer to the cross section drawings for a complete understanding of weatherstrip type and locations.

HARDWARE: The lock stile contained a Mortice lock 45 inches from the bottom. When locked, the tongue of the lock engaged a keep which consisted of two (2) metal plates on either side of the jamb extrusion and fastened together with two screws. Each active panel bottom rail contained an adjustable tandem steel roller at each end.

CONSTRUCTION: The frame was mechanically joined with three (3) #10 x 3/4" PPH screws per corner. The panels were mechanically joined with a #10 x 2" PPH screw per corner. The fixed panel was secured in the frame as follows:

- a) An aluminum L-clip, 1/8" thick, at each end of the interlock stile. Each clip was fastened with two (2) #10 x 3/4" screws on each leg.
- b) The fixed stile was fastened to the jamb with a #10 x 3/4" screws at the top and bottom.
- c) An aluminum L-clip, 1/8" thick, at each of the fixed interlock. Each clip was fastened with two (2) #10 x 3/4" screws on each leg.

The sill contained a stainless steel snap-in roller track for each sliding panel and a PVC snap-in filler in the pile pockets such that when all panels are closed, no pile is visible from the outside. The bottom rail of all panels contained a PVC stiffener full length.

CAULKING: All glazing corners were sealed full profile.

All glazing corners were sealed at the outside only.

ANCHORING: The frame was fastened to the 2" x 8" wooden buck with #10 x 2" PFH screws as follows:

- a) Jambs, sets of three (3) screws every 16 inches
- b) Head, sets of three (3) screws every 16 inches
- c) Sill, sets of three (3) screws every 16 inches.

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>PARAGRAPH</u>	<u>TEST DESCRIPTION</u>	<u>MEASURED</u>	<u>ALLOWED</u>
2.2.19.5.1	Operating Force Breakaway Motion	25 lbf. 10 lbf.	30 lbf. 20 lbf.

5.2 TEST RESULTS (cont'd)

<u>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 meets the performance requirements specified in AAMA/NWWDA 101/I.S.2 for Air Infiltration.	0.16 CFM/Ft ²	0.3 CFM/Ft ²
2.1.3	Water Penetration (ASTM E 547) 2.86 PSF With/without screens Note: Achieved with a sill pan leg height of 1.06".	No Leakage	No Leakage
2.1.4	Uniform Load Structural (ASTM E 330) 22.5 PSF POS 22.5 PSF NEG	0.23" 0.28"	0.57" Set 0.57" Set
2.2.19.5.2	Deglazing (ASTM E 987) 70 lbf. Stiles 50 lbf. Rails	16% 10%	Less than 100% Less than 100%

5.3 ADDITIONAL TESTING

Water Penetration (ASTM E 547 & ASTM E 331) 6.00 PSF With/without screens Note: Achieved with a sill pan leg height of 1.75".	No Leakage	No Leakage
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6.0 2.1.8 CAWM 300-96 FORCED ENTRY RESISTANCE FOR SLIDING GLASS DOORS

2.3.1 Type "I" Sliding Glass Door

6.1.2 Results of Operable Panel

<u>TEST</u>	<u>RESULTS</u>	<u>DESCRIPTION</u>
6.1.1	Passed	Disassembly
6.1.2.1 A	Passed	800# parallel to the plane of the glass that would tend to open the door.
6.1.2.2 B	Passed	Test A with additional 200# perpendicular to the plane of the glass toward the interior.
6.1.2.3 C	Passed	Test A with additional 200# perpendicular to the plane of the glass toward the exterior.
6.1.2.4 G	Passed	Hand and Tool Manipulation.
6.1.2.5 D	Passed	Test A with operable panel lifted upward and applying 50# load at bottom rail near meeting stiles toward the interior for inside sliding panels or toward the exterior for outside sliding panels.
6.1.2.6 E	Passed	Test B with operable panel lifted upward with lifting force at the midspan of the bottom rail.
6.1.2.7 F	Passed	Test C with operable panel lifted upward with lifting force at the midspan of the bottom rail.
6.1.2.8 G	Passed	Hand and Tool Manipulation.

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6.0 2.1.8 CAWM 300-96 Forced Entry Resistance For Sliding Glass Doors (cont'd)

6.1.5 Results of Fixed Panel

6.1.5.1	A	Passed	300# at midspan parallel to the plane of the glass that tends to remove the fixed panel from the jamb of pocket.
6.1.5.2	B	Passed	Test A with fixed panel in direction perpendicular to the plane of the glass which tends to disengage the meeting stiles.
6.1.5.3	C	Passed	Test A with fixed panel lifted upward, not to exceed 150# at the bottom of the exterior face of the meeting stile.
6.1.5.4	G	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: July 22, 1998

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