



Quality Accuracy Assurance

(12)

Fenestration Testing Laboratory, Inc.

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Lab. Number 3415
April 16, 2002
Report Number 10
File Number 02-311
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OFFICIAL TEST REPORT

MANUFACTURER: Flesher Windows, Inc.	DESIGNATION: F-R130 - 96 X 48
ADDRESS: dba AAA Aluminum Stamping 511 Leonard Blvd., North Lehigh Acres, Florida 33971	SPECIFICATIONS: ANSI/AAMA/NWDA 101/A.S.2.-97

DESCRIPTION OF UNIT

Model Designation: Series: 1500; Aluminum Fixed Window
Overall Size: 8' 0" (96") by 4' 0" (48") high by 1.875" deep
Configuration: O

MATERIAL CHARACTERISTICS

Frame Construction: Test unit has a flange type frame, butt joints and a bronze coated finish. Aluminum alloy is 6063-T5. Frame corners were fastened with two No. 8 by 2" pan head sheet metal screws. Size of frame members are as follows: 1.750" by 1.875". Frame members are solid extrusions with typical wall thicknesses of 0.060".

Glazing:

Material: 1/4" tempered glass

Method: Unit is exterior glazed with 0.440" glazing penetration using white colored silicone and an aluminum channel glazing bead with an adhesive foam between bead and glass. Glazing bead was fastened to frame with a single row of No. 8 by 1" oval head self drilling screws. Location of fasteners are as follows: frame head and frame sill from the left, 14", 34", 58" and 82"; frame jambs from the bottom, 14" and 33 1/2". The exterior perimeter of glass was sealed with a white colored silicone.

Daylight Opening: Clear opening of fixed lite, 92 5/8" by 44 5/8" high.

Weatherstripping: None

Weepholes: None

Muntins: None

Mullions: None

Reinforcement: None

Sealant: Frame corners were sealed with a white colored sealant.

Unit Installation: Test unit installed in a 2 x 12 pressure treated wood buck with a 2 x 6 pressure treated buck strip. Frame installed with a single row of No. 10 by 2" pan head sheet metal screws in frame head, frame sill and frame jambs. Location of installation screws are as follows: frame head and frame sill from the left, 4 1/2", 24", 44 1/4", 71 1/2" and 91 1/2"; frame jambs from the bottom, 4 1/2", 24" and 43 1/4".

Product Markings: None

OFFICIAL TEST RESULTS

Paragraph Number	Title of Test	Measured	Allowed
2.1.2	Air Infiltration Test: (ASTM E283-96) at 6.24 psf	0.12 cfm/sq.ft. (2.19 cmh/m ²)	Passed 0.3 (5.79) maximum

Note: The tested specimen meets or exceeds the performance levels specified in specification reference for air infiltration.

Official Test Results stamp with handwritten signature and date.



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OFFICIAL TEST RESULTS

Paragraph Number	Title of Test	Measured	Allowed
2.1.3	Water Resistance Test: (ASTM E547-96/E331-96) No leakage at	15.00 psf (718 Pa)	Passed 2.86 (137) minimum
2.1.4.2	Uniform Structural Load Test: (ASTM E330-96) Positive Load	195.0 psf (9337 Pa)	Passed 22.5 (1077) minimum
		Deflection	Permanent Set
	Reading at frame jamb	0.095" (2.42 mm)	None
	Reading at frame sill	0.068" (1.73 mm)	None
	Uniform Structural Load Test: (ASTM E330-96) Negative Load	195.0 psf (9337 Pa)	Passed 22.5 (1077) minimum
	Reading at frame jamb	0.105" (2.67 mm)	None
	Reading at frame sill	0.073" (1.87 mm)	None
2.1.8	Forced Entry Resistance Test: (ASTM F588-97) Manipulation Test	No Entry	Passed

SECTION 4, OPTIONAL PERFORMANCE CLASS:

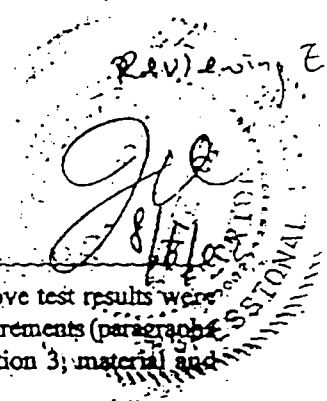
4.3.	Water Resistance (ASTM E547-96/E331-96) No leakage at	15.00 psf (718 Pa)	Passed 3.00 (144) minimum
4.4.2	Uniform Structural Load Test: (ASTM E330-96) Positive Load	195.0 psf (9337 Pa)	Passed 30.0 (1436) minimum
	Reading at frame jamb	0.095" (2.42 mm)	None
	Reading at frame sill	0.068" (1.73 mm)	None
4.4.2.	Uniform Structural Load Test: (ASTM E330-96) Negative Load	195.0 psf (9337 Pa)	Passed 30.0 (1436) minimum
	Reading at frame jamb	0.105" (2.67 mm)	None
	Reading at frame sill	0.073" (1.87 mm)	None

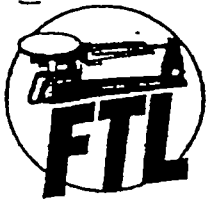
Note: At conclusion of above tests, there was no apparent damage to unit, glass or fasteners.

Temperature: 74.0 F
Barometric: 30.15

Test Began - April 11, 2002
Test Completed - April 18, 2002
Report Expires - April 11, 2006

Remarks: This test report does not constitute certification of this product, but only that the above test results were obtained using the designated test methods and they indicate compliance with the performance requirements (paragraphs as listed) of the above referenced specifications. As per manufacturer, unit complies with section 3; material and component requirements.





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continued:

Detailed assembly drawings showing wall thickness of all members, corner construction and hardware application are on file and have been compared to the sample submitted. A test sample will be retained at the test laboratory. A copy of this report has been forwarded to the Validator.

Witnessed by:
Mr. Luis Figueredo, P. E

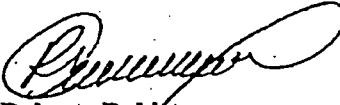
Reviewing Engineer:
Joseph Chan, P.E.

Laboratory Technicians:
Jose Sanchez

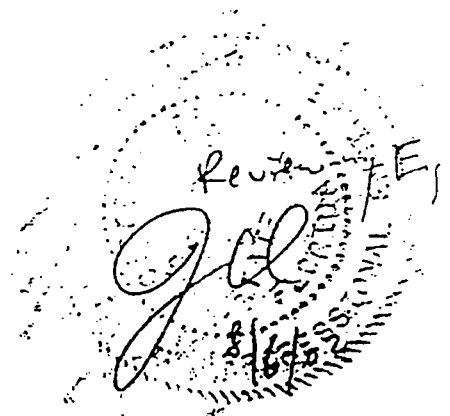
Author of Report:
Maricruz Ayala

1 - Flesher Windows, Inc.
2 - ALI

FENESTRATION TESTING LABORATORY, INC.



Roberto Robleto
Testing Manager



Test Report FTL 3415-02-311
Design Pressure: +130.0/-130.0 PSF
Water Resistance Test: 15 P.S.F

Test Size: 48" x 96"
Glazing: 1/4" Tempered Glass
Configuration: 1/1

Width>>	24	30	36	42	48	54	60	66	72	78	84	90	96
24	273.8	258.3	243.7	229.9	216.9	204.6	193.0	182.1	175.1	170.0	166.7	163.4	161
30	253.4	239.1	225.6	212.8	200.7	189.4	178.7	168.5	162.1	157.3	154.3	151.2	149
36	241.5	227.9	215.0	202.8	191.3	180.5	170.3	160.6	154.5	150.0	147.0	144.1	142
42	231.3	218.2	205.9	194.2	183.2	172.9	163.1	153.8	147.9	143.6	140.8	138.0	136
48	221.1	208.6	196.8	185.7	175.1	165.2	155.9	147.1	141.4	137.3	134.6	132.0	130

Limitations

The above are Structural Designs from Comparative Analysis and have not been capped by water resistance or glass thickness. The Positive Design Pressure for water Resistance should be capped at 100 PSF. The ASTM-1300 Glass Chart must be used to comply with the pressures for each product.

Test Report and results from these charts indicate compliance with ANSI/AAMA/NWDA 101/I.S.2-97.

CENTRAL FLORIDA B.O.A.F.

MANUFACTURER NAME:
Flesher Windows Inc.

MASTER FILE # 5

John P. Flynn
11/16/02

Maximum Allowable PSF Design Load									
Square Feet	Glass Width "	Glass Height "	SSB Glass	DSB Glass	3/16" Glass	1/4" Glass	DSB Temp	3/16" Temp	1/4" TEMP
1	12	12	139	209	209	209	835	835	835
1.5	12	18	91.4	141	209	209	566	835	835
2	12	24	66.8	110	209	209	441	835	835
2.25	18	18	77.6	102	206	209	408	825	835
3	18	24	57.3	78.5	151	209	314	602	835
4	24	24	48.1	67.4	116	159	270	466	635
4.5	36	18	35.7	49.5	104	154	198	417	617
5	24	30	39.8	55	93.1	127	220	373	508
6.25	30	30		48.1	78.2	102	193	313	409
7.5	30	36		41	65.3	84.9	164	261	339
9	36	36		36.4	58.2	74	146	233	296
9.625	54	27			45.3	62.5	107	181	250
10.5	36	42			50.7	62.9	125	203	252
12.25	42	42			46.8	57.2	111	187	229
14	42	48			41.4	50.6	99	166	202
16	48	48			38.7	47.3	88.3	155	189
18	54	48			35	42.2	79.5	140	169
20	60	48				39.2	73.1	128	157
22	66	48				35.5	66.8	116	142
24	72	48					61.7	106	128
25	60	60					59.5	109	137
26	78	48					58.2	97	116
28	84	48					55.1	89.2	106
30	90	48					55.1	81.2	97.8
32	96	48					48.6	75.5	89.6

Design Pressures were calculated using the top lite of the product being the larger glass
 Design Pressures were calculated using "Comprehensive Glass Design V 1.2" software
 Design Pressures may exceed Comparative Analysis and Product Testing
 The lowest pressure of the two must be used to find the correct pressure

ASTM-1300
Aug-1-2002

CENTRAL FLORIDA B.O.A.F.

MANUFACTURER NAME:

Flesher Windows Inc.

MASTER FILE # 5

John Flynn
11/14/02