



Quality Accuracy Assurance

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Fenestration Testing Laboratory, Inc.

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Lab. Number 3418
April 17, 2002
Report Number 16
File Number 02-311
Page 1 of 3
A-5012

OFFICIAL TEST REPORT

MANUFACTURER: Flesher Windows, Inc.
ADDRESS: dba AAA Aluminum Stamping
511 Leonard Blvd., North
Lehigh Acres, Florida 33971

DESIGNATION: F-R150 - 60 X 48
SPECIFICATIONS: ANSI/AAMA/NWDA
101/I.S.2.-97

DESCRIPTION OF UNIT

Model Designation: Series: 1000; Aluminum Fixed Window
Overall Size: 5' 0" (60") 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 white 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: frame head and frame sill 0.687" by 1.875" by 0.656" by 0.062" wall thickness; frame jambs 1.423" by 1.875" by 1.343" by 0.050" wall thickness. Frame members are solid extrusions.

Glazing:

Material: 3/16" tempered glass

Method: Unit is exterior glazed with 0.510 glazing penetration using white colored silicone and aluminum rounded glazing bead.

Daylight Opening: Clear opening of fixed lite, 56 3/8" by 46 3/4" 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, 11 1/2" and 34 3/4"; frame jambs from the bottom, 3 3/4" and 56 3/4".

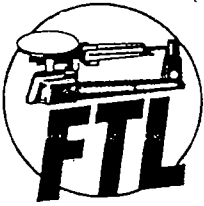
Product Markings: None

OFFICIAL TEST RESULTS

Paragraph Number	Title of Test	Measured	Allowed
2.1.2	Air Infiltration Test: (ASTM E283-96) at 6.24 psf	0.10 cfm/sq.ft. (1.83 cmh/m ²)	Passed 0.3 (5.49) maximum

Reviewing Eng.
J. O.
8/16/02

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



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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	225.0 psf (1077 Pa)	Passed 22.5 (1077) minimum
		Deflection	Permanent Set
	Reading at frame jamb	0.160" (4.07 mm)	None
	Reading at frame sill	0.113" (2.87 mm)	None
	Uniform Structural Load Test: (ASTM E330-96) Negative Load	225.0 psf (1077 Pa)	Passed 22.5 (1077) minimum
	Reading at frame jamb	0.167" (4.25 mm)	None
	Reading at frame sill	0.119" (3.03 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	0.160" (4.07 mm)	None
	Reading at frame sill	0.113" (2.87 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	0.167" (4.25 mm)	None
	Reading at frame sill	0.119" (3.03 mm)	None

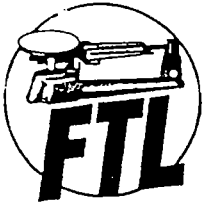
Note: At conclusion of above tests, there was no apparent damage to unit, glass or fasteners.

Temperature: 71.0 F
Barometric: 30.18

Test Began - April 11, 2002
Test Completed - June 20, 2002
Report Expires - April 11, 2006

Reviewing Eng
J. U.
8/16/02

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

✓ - Flesher Windows, Inc.
2 - ALL

FENESTRATION TESTING LABORATORY, INC.

Roberto Robleto
Testing Manager

Reviewing Eng
JC
4/15/02

Test Report FTL 3418-02-311
Design Pressure: +150.0/-150.0 PSF
Water Resistance Test: 15 P.S.F

Test Size: 60 x 48
Glazing: 3/16" Tempered Glass
Configuration: 1/1

Width>>	24	30	36	42	48	54	60	66	72	78	84
Heights											
24	262.4	247.6	233.6	220.3	207.9	196.1	185.0	181.5	177.0	172.7	168.5
30	245.4	231.5	218.4	206.0	194.4	183.4	173.0	169.1	164.9	160.9	157.0
36	234.1	220.8	208.3	196.5	185.4	174.9	165.0	163.0	159.0	151.0	
42	222.7	210.1	198.2	187.0	176.4	166.4	157.0	150.0			
48	212.8	200.7	189.4	178.7	168.5	159.0	150.0				

Limitations

The above are Structural Designs from Comparitive 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 pressues for each product.

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

CENTRAL FLORIDA B.O.A.F.

MANUFACTURER NAME:

FLESHER WINDOW

MASTER FILE # 4

John J. Flynn
11/14/02

FLESHER WINDOWS
DBA AAA ALUMINUM

Glass Design Pressure
Resistance - ASTM 1300
Fixed Window

Square Feet	Glass Width "	Glass Height "	Maximum Allowable PSF Design Load						
			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

FLORIDA B.C.A.F.

MANUFACTURER NAME:

FLESHER WINDOW

MASTER FILE # A

ASTM-1300
Aug-1-2002

John J. Flynn
11/16/02