



NATIONAL CERTIFIED TESTING LABORATORIES

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STRUCTURAL PERFORMANCE TEST REPORT

Report No: NCTL-210-3213-2
Test Date: 11/02/05
Report Date: 12/12/05

Client: A.F.G. Glass
P O Box 929
Kingsport, Tennessee 37662

Test Specimen: Series "IFG451" Aluminum Full Lite Double Doors with Panic Device
(92"x 96") Design Pressure Positive 50 Negative 50

Test Method: ASTM E283-91, "Test Method for Determining the Rate of Air Leakage through Exterior Windows, Curtain Walls, and Doors under Specified Pressure Differences across the Specimen." ASTM E330-02, "Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference."

TEST SPECIMEN DESCRIPTION

General: The specimen tested was an extruded aluminum full lite double doors measuring 92.0" x 96.0" overall. The main frame was coped and butted corner construction each corner secured with two (2) # 12 x 1" Phillips pan head screws and a THR-100 aluminum threshold measuring 2.665" was used. The full glazed door panels measured 44.0" x 95.25" with a 8" bottom rail coped and butted corner construction each corner was secured with an aluminum corner bracket and four (4) # 10 x 0.750" Phillips flat head screws. There were three (3) 4" x 4" full mortise hinges on each door located 9.5", 50.25", and 90.5" measuring from top to bottom and attached with four (4) Phillips flat head screws. Each hinge had a hinge plate attached to the main frame at the hinge locations. Both active door panels had a Jackson 1200 series push pad exit device with concealed vertical rods. The right active door exterior had a key controlled cylinder. A 4" long shear plate was snap fitted to the exterior of frame at each anchor location.

Glazing: 1" Insulated Glass.

Glazing Method: All lites were glazed using interior and exterior glazing stop and flush glaze gasket.

Daylight Opening: Two (2) lites 38.0" wide x 84.0" high.

PROFESSIONALS IN THE SCIENCE OF TESTING

11/15/05
17/11/05

Weatherseals: One (1) strip of aluminum with a neoprene strip was located on the bottom rail interior and attached with # 6 x 0.750" stainless steel screws. One (1) adjustable aluminum strip with two (2) strips of (0.220") high single fin weatherstrip was attached to the active lock stile with # 6 x 0.625" Phillips flat head screws.

Weeps: N/A

Sealant: A small joint sealant was used at each frame joint. Dow Corning 795 silicone sealant was used to seal the exterior perimeter of the specimen to the wooden test buck.

Interior & Exterior Surface Finish: Anodized Aluminum.

Insect Screen: N/A

Installation: The specimens were secured to the wooden test buck with twenty three (23) # 12 x 3" long Phillips flat head wood screws located in the head and jambs. The sill was attached with four (4) # 12 x 2" long Phillips flat head wood screws.

Header: Seven (7) located at 8" from each end 14.0" on center thereafter

Jambs: Eight (8) located at 6" from each end 14" on center thereafter

Sill: Four (4) located at 4" from each end 28" on center thereafter

TEST RESULTS

<u>Title of Test & Method</u>		<u>Measured</u>	<u>Allowed</u>
Air Infiltration - ASTM E283			
1.57 psf (25 mph)		0.23 cfm / ft ²	0.3 cfm / ft ²
**Uniform Load Structural - ASTM E330		Set	Set
D/P + 50 psf - 50 psf			
50.0 psf Exterior		0.081"	0.381"
50.0 psf Interior		0.010"	0.381"
Test Load			
75.0 psf Exterior		0.054"	0.381"
75.0 psf Interior		0.072"	0.381"

Deflection and Set measurement taken at mid-span of active door.

Loc # 1 Maximum Allowable Permanent Set (0.4% of 95" span) = 0.381"

- ** No glass breakage or permanent damage causing the unit to be inoperable
 * Specimen passed all specification



FORCED ENTRY RESISTANCE TEST RESULTS

*All Specimens
Forced Entry Resistance*

Forced Entry Resistance - Florida Building Code

Meets as Stated

Section 1707.4.2

*The specimen tested meets the criteria of Chapter 36 of the South Florida Building Code for
Forced Entry Resistance.*

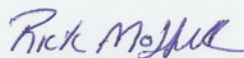
Observers – *Mr. Daniel Ocasio (NCTL)
Mr. Rick Moffett (NCTL)
Mr. Jim Stropoli (PTC Engineering, Inc.)
Mr. Joe Lewis (PTC Engineering, Inc.)
Mr. David McComas (AFG Glass)
Mr. Ivan Zuniga (AFG Glass)*

TEST COMPLETED 11/02/05

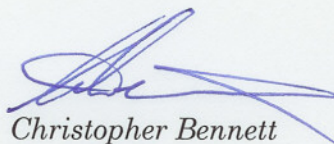


Detailed drawings were available for laboratory records and comparison to the test specimen at the time of this report. A copy of this report along with representative sections of the test specimen will be retained by NCTL. The results obtained apply only to the specimen tested. No conclusions of any kind regarding the adequacy or inadequacy of the glass in the test specimen may be drawn from this test. This report does not constitute certification of the product, which may only be granted by a certification program validator.

NATIONAL CERTIFIED TESTING LABORATORIES



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