AAMA STRUCTURAL
TEST REPORT SUMMARY

Rendered to:

CMI ARCHITECTURAL PRODUCTS, INC.

Series/Model: CMI CTS Window

Type: Two Wide Fixed Aluminum Window

Rating: F-HC40 (72" by 72")

Title of Test	**Results**
Overall Design Pressure	40 psf
Operating Force	N/A
Air Infiltration	< 0.01 cfm/ft^2
Water Resistance	12.0 psf
Structural Test Pressure	$\pm$60.0 psf
Deglazing	N/A
Forced Entry Resistance	Pass

Reference should be made to Report No. 02-31759.01 for complete test specimen description and data.

For ARCHITECTURAL TESTING, INC.

Daniel A. Johnson, Regional Manager

DAJ/jb

AAMA STRUCTURAL TEST REPORT

Rendered to:

CMI ARCHITECTURAL PRODUCTS, INC.
608 Fourth Street, S.E.
DeSmet, South Dakota 57231-0475

Report No: 02-31759.01
Test Date: 09/07/1999
Report Date: 10/06/1999
Expiration Date: 09/07/2003

Series/Model: CMI CTS Window

Type: Two Wide Fixed Aluminum Window

Test Procedure: The test specimen was evaluated in accordance with AAMA/NWWDA 101/I.S. 2-97, *"Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors,"* for conformance to the Class F-HC40 (72" by 72") performance requirements.

Test Specimen Description:

Overall Size: 6' 0" wide by 6' 0" high

Daylight Opening Size (2): 2' 9-3/8" wide by 5' 8-1/2" high

Overall Area: 36 ft^2

Finish: Mill finished aluminum

Glazing: The window was glazed with nominal 1" insulating glass comprised of two nominal 1/4" annealed sheets separated by a desiccant-filled aluminum spacer system. The glass was set from the exterior against 70-durometer EPDM gasket with Celcon molded attachment clips located 6" from each end and 12" on center used to secure the glass. The clips were attached onto an aluminum barb. Extruded aluminum covers with 70-durometer EPDM gaskets were snapped onto the attachment clips to provide the exterior seal.

Frame Construction: The frame was comprised of 6063 alloy extruded aluminum with a T5 tempering. The corners were coped, sealed with silicone and secured with two screws per corner.

Drainage:

Description	Quantity	Location
1/4" diameter weep holes	2 per lite	Sill

Test Specimen Description (Continued)

Installation: The window was installed within a nominal 2" by 6" wood buck and was secured to the buck with screws through the frame located 6" from each end and 24" on center. The interior and exterior of the frame was sealed to the buck with silicone.

Test Results

The results are tabulated as follows:

Paragraph	Title of Test	Results	Allowed
2.1.2	Air Infiltration per ASTM E 331		
	@ 6.24 psf (50 mph)	< 0.01 cfm/ft^2	0.3 cfm/ft^2
	The tested specimen meets the performance levels specified in AAMA/NWWDA 101/I.S. 2-97 for air infiltration for an F-HC window		
2.1.3	Water Resistance per ASTM E 547 & E 331		
	WTP = 12.0 psf	No leakage	No leakage @ 6.0 psf
2.1.4.1	Uniform Load Deflection per ASTM E 330*		
	@ 40.0 psf (positive)	0.24"	--
	@ 40.0 psf (negative)	0.27"	--
2.1.4.2	Uniform Load Structural per ASTM E 330		
	@ 60.0 psf (positive)	0.003"	0.4% L = 0.29"
	@ 60.0 psf (negative)	< 0.001"	0.4% L = 0.29"
2.1.8	Forced Entry Resistance		
	ASTM F 588, Level 10	No entry	No entry

**Not a requirement for AAMA/NWWDA 101/I.S. 2-97*

A copy of this report will be retained by ATI for a period of four years. This report is the exclusive property of the client so named herein and is applicable to the sample tested. Results obtained are tested values and do not constitute an opinion or endorsement by this laboratory.

For ARCHITECTURAL TESTING, INC.

Daniel A. Johnson
Regional Manager

Daniel P. Braun
Regional Manager

DAJ/jb
02-31759

DOCUMENT CONTROL ADDENDUM 02-31759

Current Issue Date: 10/06/99

Report No. 02-31759.01

Requested by:	Gary Geigler
Purpose:	AAMA/NWWDA Test Report
Issue Date:	10/06/99