

AAMA STRUCTURAL TEST REPORT

Rendered to:

CMI ARCHITECTURAL PRODUCTS, INC.
408 Fourth Street, S.E.
DeSmet, South Dakota 57283-0475

Report No: 02-31409.01
Test Dates: 06/08/1999
06/09/1999
Report Date: 07/28/1999

Series/Model: CMI 200T Awning

Type: Thermally Broken Project-out Aluminum Window

Test Procedure: The test specimen was evaluated in accordance with the following:

AAMA/NWWDA 101/I.S. 2-97, "*Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors,*" for conformance to the Class AP-C60 (60" x 36") performance requirements.

Test Specimen Description:

Overall Size: 5' 0" wide by 3' 0" high

Vent Size: 4' 11-3/8" wide by 2' 11-3/8" high

Overall Area: 15.0 ft²

Finish: Anodized aluminum

Glazing: The window utilized nominal 1" insulating glass fabricated from two nominal 1/4" annealed sheets separated by a desiccant-filled metal spacer system. The glass was set from the interior against 1/8" by 1/2" pre-shimmed butyl tape. Aluminum glazing beads with a 70 durometer EPDM wedge gasket were used on the interior.

Frame Construction: The frame corners were coped, butted, sealed with small joint sealant and secured with crimped metal corner key. All frame members contained poured-in-place and debridged urethane thermal break.

Vent Construction: Vent corners were miter-cut and secured with a crimped metal corner key. The corners were sealed with small joint sealant and all vent members contained poured-in-place and debridged urethane thermal break.

Hardware:

<u>Description</u>	<u>Quantity</u>	<u>Location</u>
4-bar hinge	2	Vent top corners
Cam locks	4	Vent bottom rail: 6" from each end, Vent stiles: 6" from bottom

Test Results: The results are tabulated as follows:

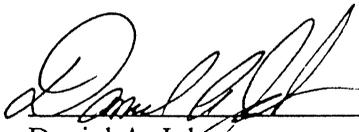
<u>Paragraph</u>	<u>Title of Test</u>	<u>Results</u>	<u>Allowed</u>
2.1.2	Air Infiltration per ASTM E 283 @ 1.57 psf (25 mph) @ 6.24 psf (50 mph)	< 0.01 cfm/ft ² < 0.01 cfm/ft ²	0.3 cfm/ft ² max. --
<i>The tested specimen meets the performance levels specified in AAMA/NWWDA 101/I.S. 2-97 for air infiltration.</i>			
2.1.3	Water Resistance per ASTM E 547 WTP = 4.50 psf	No leakage	No leakage
2.1.4.2	Uniform Load Structural per ASTM E 330 @ 45.0 psf (positive) @ 45.0 psf (negative)	0.01" 0.01"	0.4% L = 0.120" 0.4% L = 0.120"
2.1.8	Forced Entry Resistance per ASTM F 588 Level 10	No entry	No entry
2.2.4.5.2	Sash Torsion Test @ 30 lbf	1.00"	2.00"

Optional Performance:

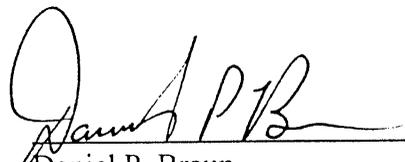
4.3	Water Resistance per ASTM E 547 & E 331 WTP = 12.0 psf	No leakage	No leakage @ 9.0 psf
4.4.2	Uniform Load Structural per ASTM E 330 @ 90.0 psf (positive) @ 90.0 psf (negative)	0.01" 0.01"	0.4% L = 0.120" 0.4% L = 0.120"

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