



**TESTED FOR**

**HY-LITE BLOCK WINDOWS**  
101 California Avenue  
Beaumont, CA 92223

Report No. : V99A-144  
Date : September 28, 1999  
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**1.0 PURPOSE**

The purpose of this report is to present the testing methods employed and the test results obtained during the performance testing of one (1) PVC Awning Window described in paragraph 4.0 of this report.

**2.0 TEST REFERENCES**

2.1 Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors.  
AAMA/NWWDA 101/LS.2 - 97: AP - C 40 61 x 37

2.2 CAWM 301 - 90 Forced Entry Resistance Tests for Windows.

**3.0 SUMMARY**

The test results in paragraphs 5.0 and 6.0 indicate that the test sample described in paragraph 4.0 of this report complied with the performance requirements of the above referenced specifications.

**4.0 SAMPLE SUBMITTED**

**SERIES:** PRESTIGE K Awning

**CONFIGURATION:** Single Vent Out

**FRAME SIZE:** 61.00" x 37.00"

**VENT SIZE:** 59.00" x 35.00" Nine blocks wide x five blocks high

**GLAZING MATERIAL:** 6" x 6" x 2" thick translucent acrylic blocks with a sealed airspace in an aluminum thermally broken frame.

The perimeter of the composite block lite was wet glazed to the frame from the interior and exterior with a thermal plastic sealant. In addition, the individual block lites were sealed to each other from the interior and exterior with a thermal plastic sealant.

**GLAZING:** The unit was glazed from the inside to a PVC vent with 3/8" x 1/16" double-sided adhesive foam tape. PVC snap-in glazing bead was applied on the full inside perimeter.

**WEEPAGE:** None.

**WEATHERING:** The window contained foam filled bulb vinyl full perimeter on the frame and full perimeter on the vent.

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**HARDWARE:**

The frame contained a die cast cam lock 5 inches from the bottom on each jamb, fastened with a pair of #8 x 3/8" PPH machine screws. When locked, the hook of the lock engaged a steel keeper (Luth Part #21088) fastened to the vent stile with two (2) #8 x 5/8" PPH screws.

The vent was supported by a three-bar concealed hinge on each jamb.

The frame sill contained a roto operator fastened with six (6) screws. The operator arms engaged their corresponding hardware fastened to the vent bottom rail.

**CONSTRUCTION:**

The frame and vent corners were welded full profile.

Individual block lites were stacked together, vertically and horizontally, to form the overall composite size. When stacking, the blocks were mechanically fastened together, at each inside and outside corner, with an I-shaped plastic key that fit into built-in slots at each block corner.

The perimeter of the composite block lite fit into the aluminum frame such that the frame inner leg served as a stop for the composite block lite. In addition, the blocks along the jambs contained their respective I-shaped keys at the corners that protruded into the channels created by the most outer and inner legs of the aluminum frame.

The aluminum frame corners were sealed full profile and fastened with a pair of #6 x 1" square drive screws.

**CAULKING:**

The fixed lite in the aluminum frame was sealed full perimeter to the PVC vent from the outside.

**ANCHORING:**

The frame was mounted in a 2" x 6" wooden buck. Wood furring was applied over the nail-on fins and screwed into the wood buck every 16 inches.

**5.0 TEST PROCEDURES AND RESULTS**

5.1 All testing procedures were performed in accordance with the performance requirements of the test specifications referenced in paragraph 2.0 of this report.

**5.2 TEST RESULTS  
PARAGRAPI**

| <u>PARAGRAPI</u> | <u>TEST DESCRIPTION</u>   | <u>MEASURED</u>         | <u>ALLOWED</u>          |
|------------------|---|-------------------------|-------------------------|
| 2.1.2            | Air Infiltration (ASTM E 283)<br>1.57 PSF   | 0.0 CFM/Ft <sup>2</sup> | 0.3 CFM/Ft <sup>2</sup> |
|                  | The tested specimen exceeds the performance requirements specified in AAMA/NWWDA 101/I.S.2-97 for Air Infiltration. |                         |                         |
| 2.1.3            | Water Penetration (ASTM E 547)<br>4.50 PSF<br>Internal Screen   | No Leakage              | No Leakage              |
| 2.1.4            | Uniform Load Structural (ASTM E 330)<br>45.0 PSF POS<br>45.0 PSF NEG  | 0.00"<br>0.00"          | 0.23" Set<br>0.23" Set  |
| 2.2.4.5.2        | Sash Torsion Test   | 0.01"                   | 2.00"                   |

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5.2 TEST RESULTS (cont'd)

| <u>PARAGRAPH</u> | <u>TEST DESCRIPTION</u> | <u>MEASURED</u> | <u>ALLOWED</u>                                |
|------------------|-------------------------|-----------------|---|
| 2.1.7            | Welded Corner Test      | Passed          | Break Shall Not Extend Along Entire Weld Line |

5.3 OPTIONAL PERFORMANCE GRADES

|       |  |                |                        |
|-------|--|----------------|------------------------|
| 4.3   | Water Penetration (ASTM E 547 & ASTM F 331)<br>7.50 PSF<br>Internal screen | No Leakage     | No Leakage             |
| 4.4.2 | Uniform Load Structural (ASTM E 330)<br>60.0 PSF POS<br>60.0 PSF NEG       | 0.00"<br>0.00" | 0.23" Set<br>0.23" Set |

6.0 2.1.8 CAWM 301 - 90 FORCED ENTRY RESISTANCE TEST RESULTS

2.4.2 Type "II" Window

|       | <u>TEST</u> | <u>RESULTS</u> | <u>DESCRIPTION</u>  |
|-------|-------------|----------------|---|
| 5.2.1 |             | Passed         | Disassembly   |
| 5.2.2 | A           | Passed         | With swinging sash in normal position, 100# load within three (3) inches of each end of the member which is opposite the hinged side, in direction perpendicular to the plane of the glass that would tend to open the window.  |
| 5.2.3 | B           | Passed         | Test A and simultaneous load of 100# on the outside within one (1) inch of each end of the member which is opposite the hinged side, in a direction parallel to the plane of the glass which would tend to disengage the lock.  |
| 5.2.4 | C           | Passed         | With the swinging sash in normal position, 200# on the member containing the locking device, within six (6) inches of the locking device, in direction perpendicular to the plane of the glass which would tend to open the window, while simultaneous load of 100# on the outside within one (1) inch of each end of the member which is opposite the hinged side, in a direction parallel to the plane of the glass which would tend to disengage lock. |
| 5.2.5 | E           | Passed         | Hand and Tool Manipulation.   |

For a complete description of the tested sample refer to the attached cross section drawings.

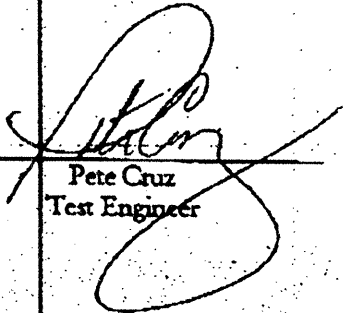
Assembly and die drawings of frame members are on file and have been compared to the sample submitted. Test sample sections, drawings and a copy of this report will be retained at the test laboratory for four years.

This test report may not be modified in any way without the written consent of Fenestration Testing Laboratory.

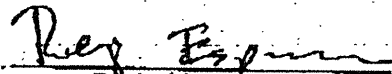
The above test results were obtained by using the applicable ASTM and CAWM Test Methods. This report does not constitute Certification of this product. Certification can only be granted by an approved Administrator and/or Validator.

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Testing Completed: September 24, 1999  
Report Completed: September 28, 1999



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