



## TEST REPORT

Submitted by: <b>Danvid Window Company</b> <b>1813 Kelly Boulevard</b> <b>Carrollton, Texas 75006</b>	
<b>Lab Control Number: 01-ML-0430-01</b>	<b>Report Date: May 15, 2001</b>
<b>Customer Identification: Danvid</b>	<b>Customer Contact: Ken Novak 972-416-8140</b>
<b>Test Start Date: May 1, 2001</b>	<b>Test Finish Date: May 15, 2001</b>
<b>Description of Product Type:</b>	<b>Aluminum Single Hung</b>
<b>Designation:</b>	<b>H-R35 44x60 / H-R40 44x60 Modified***</b>
<b>Specification:</b>	<b>AAMA/NWWDA 101-LS.2-97</b>
<b>Series/Model:</b>	<b>500 SH / 2500 SH</b>
<b>Frame size:</b>	<b>44" x 60"</b>
<b>Sash size:</b>	<b>42½" x 31½"</b>
<b>Configuration of Test Item:</b>	<b>0/X</b>

## PRODUCT DESCRIPTION

<b>Weatherstripping:</b> Two rows of pile with fin .210" high at each sash stile. One row of pile with fin .210" high at the active interlock. One row of vinyl bulb 3/8" diameter at the sash bottom rail full width of the sash.
<b>Hardware:</b> One sweep lock located 6" from each end of the sash top rail. The locks engage a slot in the fixed meeting rail. The locks are secured by two #8 x ¾" metal screws. A snap-in vinyl sash stop is located at the top of each jamb. A spiral balance is located in each jamb. One plastic tilt latch at each end of the sash top rail. One metal tilt pin at each sash bottom rail.
<b>Glass:</b> Sealed insulated glass with two pieces of double strength annealed and ¼" spacer. ½" overall thickness.
<b>Glazing:</b> Exterior glazed with bedding compound and a snap-in vinyl glazing bead at the exterior.
<b>Weep Arrangement:</b> 1/8" diameter located 2½" from each end of the fixed interlock. Exterior leg of the sill notched to give a 2" opening at each end. The sill intermediate leg notched to give a 1¾" opening.
<b>Sealant:</b> All joints sealed with seam sealer full perimeter.

<b>Reinforcement:</b> None
<b>Other features:</b> Frame corners secured with two #8 x 3/4" hex head metal screws. Fixed interlock secured by one #8 x 3/4" hex head metal screw. Sash corners secured by one #8 x 3/4" metal screw. A roll-formed aluminum screen with plastic corner keys was installed for water tests. The sash stiles must be notched at the bottom to allow clearance for the vinyl bulb weatherstripping backing.
<b>Installation Features:</b> The window was secured to a #2 pine 2 x 4 buck with #6 x 2" wood screws through the nailing fin on 16" spacing for the jambs and 12" spacing at the head and sill.
<b>Location Where Tests Were Performed:</b> Mavrick Laboratories in Fort Worth, TX

## TEST RESULTS

Paragraph No.	Title of Test	Test Method	Results Measured	Allowed
2.2.1.6.1	Operating Force Open Close	N/A	26 lbs 16 lbs	30 lbs 30 lbs
2.1.2	Air Infiltration Test @1.57 psf	ASTM E 283-91	.08 cfm.ft <sup>2</sup> *	.30 cfm/ft <sup>2</sup> *
2.1.3	Water resistance @ 5.25 psf Without Screen	ASTM E 547-96	No Leakage	No Leakage
2.1.3	Water resistance @ 5.25 psf With Screen	ASTM E 547-96	No Leakage	No Leakage
4.3	Water resistance @ 6.0 psf Without Screen***	ASTM E 547-96	No Leakage	No Leakage
4.3	Water resistance @ 6.0 psf Without Screen***	ASTM E 331-96	No Leakage	No Leakage
2.1.4.2	Uniform Load Structural Positive Negative 10 Seconds Duration Permanent Set	ASTM E 330-97	67.5 psf** 67.5 psf**  Negligible	67.5 psf** 67.5 psf**  .170"
2.1.8	Forced Entry Resistance Type A Grade 10 10.1.1 Lock Manipulation 10.2.1.1 Test A1 10.2.1.2 Test A2 10.2.1.3 Test A3 10.2.1.4 Test A4 10.2.1.5 Test A5 10.2.1.7 Test A7 10.2.1.8 Lock Manipulation	ASTM F 588-97	No Entry No Entry No Entry No Entry No Entry No Entry No Entry No Entry No Entry	No Entry No Entry No Entry No Entry No Entry No Entry No Entry No Entry No Entry
2.2.1.6.2	Deglazing Test Top Rail @ 70 lbs. Bottom Rail @ 70 lbs. Left Stile @ 50 lbs. Right Stile @ 50 lbs.	ASTM E 987-94	28.7% 87.4% 29.2% 19.1%	100% 100% 100% 100%

## CASE NARRATIVE

### Narrative including any Deviations or Supplements

\* The tested specimen exceeds the performance requirements of AAMA/NWDA 101/I.S.2-97 for air infiltration. The values are reported at the request of the manufacturer.

\*\*No glass breakage or permanent deformation causing the unit to be inoperable.

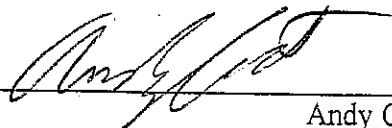
\*\*\*Modified unit tested for water resistance without a screen.

The 2500 SH is identical to the 500 SH except for the nailing fin location.

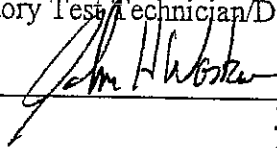
“Detailed extrusions and assembly drawings indicating measured wall thickness, corner construction, and hardware application are on file and have been compared to the test sample submitted. Test samples will be retained at Mavrick Laboratories, Inc. for a period of four years.”

“The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specifications. This report does not constitute certification of this product which may only be granted by the certification program validator.”

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Andy Cost  
Laboratory Test Technician/Director of Testing



John H. Waskow  
General Manager

#### Attachments:

- |   |   |
|---|---|
| <input type="checkbox"/> Section and Part Drawings  | <input type="checkbox"/> Bill of Materials                |
| <input type="checkbox"/> Complete Assembly Drawings | <input type="checkbox"/> Window Installation Instructions |