



# NATIONAL CERTIFIED TESTING LABORATORIES

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## STRUCTURAL PERFORMANCE TEST REPORT

Report No: NCTL-2678-1  
Test Date: 06/29/01  
Report Date: 09/13/01

**Client:** Florida Extruders International  
2540 Jewett Lane  
Orlando, FL 32771-1600

**Test Specimen:** Florida Extruders International's Series "1000" Type XOX Dual Horizontal Sliding Aluminum Prime Window (HS-DW-R30).

**Test Method:** AAMA/NWWDA 101/I.S.2-97, "Voluntary Specifications for Aluminum, Vinyl (PVC), and Wood Windows and Glass Doors."

### TEST SPECIMEN DESCRIPTION

**General:** The test specimen was a type XOX horizontal sliding aluminum prime window measuring 108" wide by 72" high overall. The interior active panels measured 36" wide by 68-1/4" high. The fixed lite was glazed to the frame members providing a viewing area of 33" wide by 56-1/2" high. Frame and panel members were not thermally broken. One (1) metal cam-type sweep lock was located at 2-1/2" from each end of the active meeting stiles. The metal keeper was extruded onto the fixed meeting stiles at lock positions. A plastic housing was located at each end of both panel bottom rails. The active panels were of double screw butt-type corner construction. The frame was of double screw butt-type corner construction. The fixed meeting stiles were fastened to the head and sill at 33-1/2" from each jamb with two (2) screws.

**Glazing:** Both active panels and fixed lite were interior glazed using 0.225" thick annealed glass with a silicone back bedding and a snap-in rigid vinyl glazing bead.

**Weatherseals:** A single strip of polypile weatherstrip (0.190" high) was located at the exterior perimeter face of the top and bottom rail, the jamb stile and the interlock of both active panels

**Weeps:** One (1) weep hole measuring 1" x 3/16" and employing a plastic weep cover was located at 5" and 10" from each end of the exterior sill face. One (1) weep hole measuring 1" x 3/16" was located at 5" and 32" from each end of the interior sill track. One (1) weep hole 1/8" in diameter was located at 5" and 32" from each end of the exterior sill track.

**Interior & Exterior Surface Finish:** White painted aluminum.

**Sealant:**

*Handwritten signature: Dan Parker  
2/2/02*

Screen: N/A

**TEST RESULTS**

<u>Par. No.</u>	<u>Title of Test &amp; Method</u>	<u>Measured</u>	<u>Allowed</u>
2.2.2.5.1	Operating Force Active Panel Open Close	8 lbf 2 lbf	25 lbf 25 lbf
2.2.2.5.2	Deglazing - ASTM E987 Active Panel Top Rail (50 lbf) Bottom Rail (50 lbf) Left Hand Stile (70 lbf) Right Hand Stile (70 lbf)	11.2 % (0.056") 8.4 % (0.042") 12.4 % (0.062") 8.0 % (0.040")	<100% <100% <100% <100%
2.1.2	Air Infiltration - ASTM E283 1.57 psf (25 mph)	0.17 cfm/ft <sup>2</sup>	0.30 cfm/ft <sup>2</sup>
2.1.3 *	Water Resistance - ASTM E547 5.0 gph/ft <sup>2</sup> WTP= 2.86 psf	No Leakage	No Leakage
2.1.4.2 **	Uniform Load Structural - ASTM E330 22.5 psf Exterior 22.5 psf Interior	0.020" 0.045"	0.220" 0.220"
2.1.8	Forced Entry Resistance - ASTM F588 Level 10 (See Appendix A for test results)	Meets As Stated	

**OPTIONAL PERFORMANCE**

<u>Par. No.</u>	<u>Title of Test &amp; Method</u>	<u>Measured</u>	<u>Allowed</u>
4.3 *	Water Resistance - ASTM E547 5.0 gph/ft <sup>2</sup> WTP= 5.25 psf	No Leakage	No Leakage
4.4.2 **	Uniform Load Structural - ASTM E330 45.0 psf Exterior 45.0 psf Interior	0.050" 0.105"	0.220" 0.220"

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

TEST COMPLETED 6/29/01

*Barry Portnoe*  
6/29/01

*The tested specimen meets (or exceeds) the performance levels specified in Table 2.1 of AAMA/NWWDA 101/I.S.2-97 for air infiltration. The listed results were secured by using the designated test methods and indicate compliance with the performance requirements of the referenced specification paragraphs for the HS-DW-R30 product designation.*

*Detailed drawings were available for laboratory records and compared 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 for a period of four (4) years. 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**

**DAN CONYERS**  
*Laboratory Manager*

*Gary Palmer*  
*1/1/02*

**APPENDIX A**  
**Forced Entry Resistance Test Results**

**Test Method: ASTM F588-97, "Standard Test Method for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact".**

**TEST RESULTS**

<u>Paragraph No.</u>	<u>Loads</u>	<u>Duration</u>	<u>Measured</u>	<u>Allowed</u>
10.1-Lock Manipulation		5 Minutes	No Entry	No Entry
10.2.1.1-Test A1	L1=150 lbf	1 Minute	No Entry	No Entry
10.2.1.2-Test A2	L1=150 lbf L2= 75 lbf interior	1 Minute	No Entry	No Entry
10.2.1.3-Test A3	L1=150 lbf L2= 75 lbf exterior	1 Minute	No Entry	No Entry
10.2.1.4-Test A4	L1=150 lbf L2= 75 lbf interior	1 Minute	No Entry	No Entry
10.2.1.5-Test A5	L1= 150 lbf L2= 75 lbf exterior	1 Minute	No Entry	No Entry
10.2.1.7-Test A7	L1=150 lbf L2= 75 lbf interior L3= 25 lbf interior	1 Minute	No Entry	No Entry
10.2.1.8 Lock Manipulation		5 Minutes	No Entry	No Entry
10.2.4.1 Fixed Lite Lock Manipulation		5 Minutes	No Entry	No Entry

*Baryo Partha*  
*Sp/Pr*