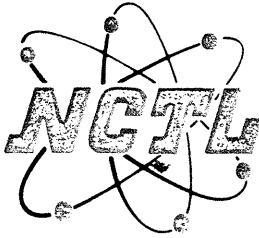


**Stanek Vinyl Windows**  
**Structural Performance Test Report**  
**NCTL 210-2712-2**  
**Series "3000" Vinyl**  
**Horizontal Sliding Window**  
**Test Date: 10/15/01**

*Danny D. Roberts*  
*10/15/01*  
*1/26/02*



# NATIONAL CERTIFIED TESTING LABORATORIES

1464 GEMINI BOULEVARD • ORLANDO, FLORIDA 32837  
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## STRUCTURAL PERFORMANCE TEST REPORT

Report No: NCTL-210-2712-2  
Test Date: 10/15/01  
Report Date: 01/15/02  
Expiration Date: 10/15/05

**Client:** Stanek Vinyl Windows  
4570 Willow Parkway  
Cuyahoga Heights, OH 44125

**Test Specimen:** Stanek Vinyl Window's Series "3000" Type OX Horizontal Sliding Vinyl Prime Window (HS-R60 73x72).

**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 OX horizontal sliding vinyl prime window measuring 73" wide by 72" high overall. The interior active panel measured 37" wide by 69" high. The fixed lite was glazed to the frame members, providing a viewing area of 32" wide by 66-1/2" high. One (1) metal sweep-type lock was located at 8" from each end of the interior active meeting stile. The metal keepers were located on the fixed meeting stile at lock positions. An extruded aluminum fixed meeting stile was fastened at mid-span to the head and sill using two (2) (#8 x 3") pan head screws. The frame and active panel was of welded mitered corner construction. The interior vertical sill leg measured 2" from the threshold to the bottom sill track.

**Reinforcement:** The panels were reinforced with a 0.050" thick galvanized steel U-Shaped channel measuring 0.724" wide by 0.930" high in all panel rails and stile hollows.

**Glazing:** The active panel was interior glazed using sealed insulating glass with a dual durometer back-bedding and an interior snap-in dual durometer rigid vinyl glazing bead. The fixed lite was interior glazed using sealed insulating glass with a silicone back-bedding and a snap-in rigid vinyl dual durometer glazing bead. The overall insulating glass thickness for both lites was 7/8" consisting of two (2) lites of 1/8" thick tempered glass and one (1) space created by an intercept spacer system.

**Weatherseals:** One (1) strip of centerfin polypile weatherstrip (0.290" high) was located at the interior sill leg and active head. One (1) strip of centerfin polypile weatherstrip (0.290" high) was located at the interior of the fixed meeting stile and the interior of the active jamb. One (1) strip of centerfin polypile weatherstrip (0.290" high) was located at the center sill head and active jamb leg. One (1) strip of centerfin polypile weatherstrip (0.290" high) was located at the interior top rail of the active sash and the interlocking stile of the active sash.

**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



Handwritten signatures and dates: 6/6/02, 6/6/02, and 6/6/02.

**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/ASTM E331 5.0 gph/ft <sup>2</sup> WTP= 12.0 psf	No Leakage	No Leakage
4.4.2	** Uniform Load Structural - ASTM E330 90.0 psf Exterior 90.0 psf Interior	0.050" 0.020"	0.266" 0.266"
	** No glass breakage or permanent damage causing the unit to be inoperable		

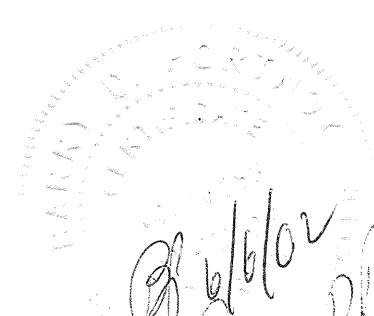
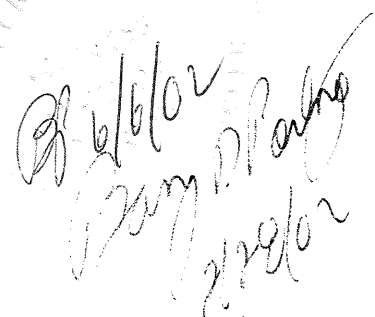
**TEST COMPLETED 10/15/01**

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-R60 73 x 72 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**

  
**DANIEL D. CONYERS**  
 Laboratory Manager

**Weeps:** One (1) weep hole measuring 1-1/2" x 1/4" and employing a plastic weep cover was located at 3-1/4" from each end of the exterior sill face. One (1) weep hole measuring 1" x 1/8" was located at 4-1/8" from each end of the exterior sill track. One (1) weep hole measuring 1/4" x 1/4" in diameter was located at each end of the sill track. One (1) weep hole measuring 1" x 1/8" was located at 5" from each end of the exterior active sill track.

**Interior & Exterior Surface Finish:** White vinyl (PVC).

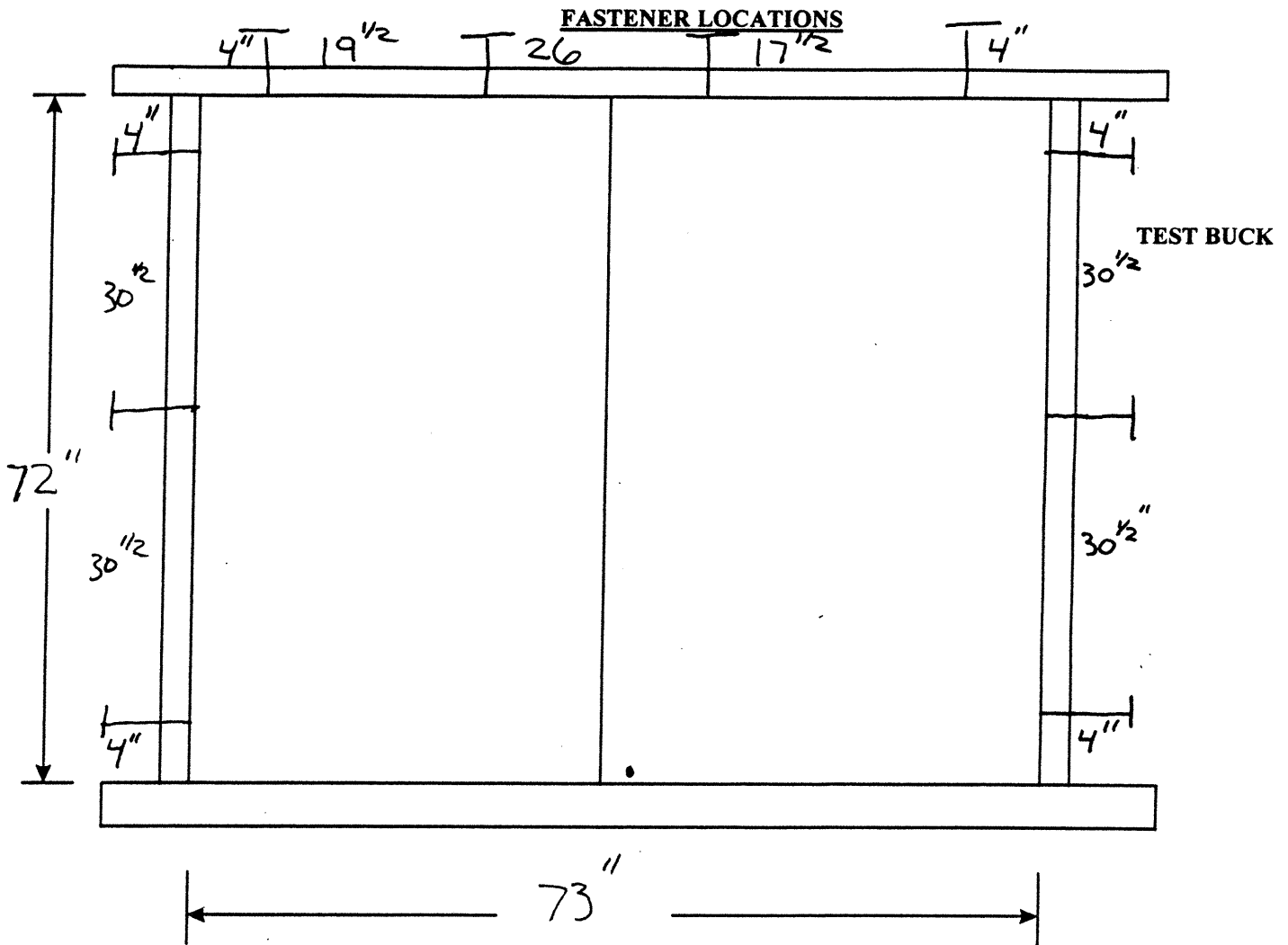
**Sealant:** The fixed meeting stile was sealed at the head and sill with small joint sealant.

**Screen:** No screen employed.

**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	15 lbf 12 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)	0.02 cfm/ft <sup>2</sup>	0.3 cfm/ft <sup>2</sup>
2.1.3 *	Water Resistance - ASTM E547/ASTM E331 5.0 gph/ft <sup>2</sup> WTP= 9.0 psf	No Leakage	No Leakage
2.1.4.2 **	Uniform Load Structural - ASTM E330 67.5 psf Exterior 67.5 psf Interior	0.020" 0.050"	0.266" 0.266"
2.1.8	Forced Entry Resistance - ASTM F588 Level 10 (See Appendix A for test results)	Meets As Stated	

A circular stamp from NCTL (National Construction Testing Laboratory) is visible in the bottom right corner. The stamp contains the text 'NCTL' and 'LABORATORY'. Overlaid on the stamp are several handwritten signatures and dates, including '6/6/02', '2/27/02', and '2/28/02'.



The test specimen was mounted to the test buck using screws at location shown.

\* Interior track dimensions

The test specimen was mounted centered on a Southern Yellow Pine 2"x12" using ten #8x3 FHS

*Handwritten signatures and notes:*  
 Dave Parker  
 6/16/01  
 2/22/02

<b>NATIONAL CERTIFIED TESTING LABORATORIES</b>	
JOB NO.:	<u>NCTL-210- 2712-2</u>
COMPANY:	<u>Stanek Windows</u>
TEST DATE:	<u>10-15-01</u>