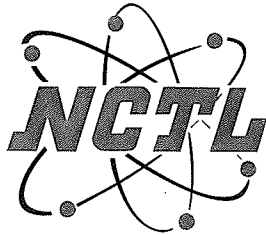


**SUPERSEAL MANUFACTURING CO.**

STRUCTURAL TEST REPORT

Series "1650" Project-Out-At-Bottom  
(P.O.B.) Vinyl Prime Window

NCTL-110-8836-7



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## NATIONAL CERTIFIED TESTING LABORATORIES

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### STRUCTURAL PERFORMANCE TEST REPORT

Report No: NCTL-110-8836-7  
Test Date: 08/12/03  
Report Date: 10/01/03  
Expiration Date: 08/31/07

**Client:** Superseal Manufacturing Co.  
125 Helen Street, P.O. Box 795  
South Plainfield, NJ 07080

**Test Specimen:** Superseal Manufacturing Co.'s Series "1650" Project-Out-At-Bottom (P.O.B)  
Vinyl Prime Window (Replacement) (AP-R50 48x16).

**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 project-out-at-bottom (P.O.B.) vinyl prime window measuring 48" wide by 16" high overall. The vent measured 45-13/16" wide by 13-13/16" high. One (1) metal single bar limit arm was located at the top of each vent stile. A roto-operator with scissors type operating hardware was located at midspan of the sill. One (1) metal lock handle was located at 4-3/4" from the bottom of each jamb. The metal keepers employed a rigid vinyl spacer and were fastened to the vent stiles at the lock positions. One (1) metal snubber was located at midspan of the head. The metal keeper was located on the top rail at the snubber position. One (1) L-shaped aluminum reinforcement channel (0.078" thick) filled the length of the bottom rail and both stile hollows. The frame and vent were of welded mitered corner construction.

**Glazing:** The vent was interior glazed using sealed insulating glass with an adhesive foam tape back-bedding and a snap-in two (2) leaf dual durometer glazing bead. The overall insulating glass thickness was 3/4" consisting of two (2) lites of double strength annealed glass and one (1) space created by a desiccant matrix steel spacer system.

**Weatherseals:** A single strip of bulb vinyl weatherstrip was located at the frame perimeter. A single strip of foam-filled bulb vinyl weatherstrip was located at the vent perimeter.

**Weeps:** One (1) weep hole measuring 3/8" x 3/16" was located at 1-3/4" from each end of the bottom rail glazing channel. One (1) weep hole measuring 3/8" x 3/16" was located at 1/4" from each end of the bottom rail exterior horizontal surface.

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

**Sealant:** No apparent sealant applied.

**Insect Screen:** An interior mounted insect screen measuring 43-1/2" wide by 11-1/2" high was of butt type corner construction with pressure-fitted plastic corner keys. The screen employed fiberglass mesh cloth with a solid vinyl spline and two (2) plunger type retainers.

### TEST RESULTS

<u>Par. No.</u>	<u>Title Of Test</u>	<u>Measured</u>	<u>Allowed</u>
2.2.4.5.1	Hardware Load Test 17 lbf	1.269"	3.500"
2.1.2	Air Infiltration - ASTM E283 1.57 psf (25 mph)	0.1 cfm/ft <sup>2</sup> (0.11 cfm/ft <sup>2</sup> )	0.3 cfm/ft
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	0.000" 0.001"	0.092" 0.092"
2.1.7	Welded Corner	Meets as Stated	
2.1.8	Forced Entry Resistance - ASTM F588 Level 10 (See Appendix A for test results)	Meets as Stated	

### OPTIONAL PERFORMANCE

4.3	Water Resistance - ASTM E547 5.0 gph/ft <sup>2</sup> WTP = 7.5 psf	No Leakage	No Leakage
4.4.2 **	Uniform Load Structural - ASTM E330 75.0 psf Exterior 75.0 psf Interior	0.000" 0.001"	0.092" 0.092"

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

TEST COMPLETED 08/12/03

This test 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 AP-R50 48x16 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 W. ZEIDERS

Technician



SCOTT R. HANLON

Manager of Testing Services

DWZ/amb

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

*Test Method: ASTM F588-97, "Standard Test Methods 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
10.2.2.1-Test B1	L2= 75 lbf	1 Minute	No Entry	No Entry
10.2.2.2-Test B2	L1=150 lbf L2= 75 lbf	1 Minute	No Entry	No Entry
10.2.2.3-Test B3	L1=150 lbf L2= 75 lbf	1 Minute	No Entry	No Entry
10.2.2.4 Lock Manipulation		5 Minutes	No Entry	No Entry