

**SUPERSEAL MANUFACTURING CO.**

**STRUCTURAL PERFORMANCE REPORT**

Series "1650"

Fixed Panel Vinyl Prime Window

NCTL-110-12490-2



# NATIONAL CERTIFIED TESTING LABORATORIES

FIVE LEIGH DRIVE • YORK, PENNSYLVANIA 17406 • TELEPHONE (717) 846-1200  
FAX (717) 767-4100  
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**SUPERSEAL MANUFACTURING CO.  
AAMA/WDMA/CSA 101/I.S.2/A440-05  
TEST SUMMARY REPORT**

*Report No: NCTL-110-12490-2S  
Expiration Date: 10/31/13*

## *Test Specimen*

*Manufacturer: Superseal Manufacturing Co.*  
*Product Type: Fixed Panel Vinyl Prime Window*  
*Series/Model: Series "1650"*  
*Primary Product Designation: FW-R55 1219.2 x 1219.2 (48x48)*  
*Optional Product Designation: Not Applicable*  
*Test Completion Date: 10/29/09*

*Reference should be made to Structural Performance Test Report Number NCTL-110-12490-2 for complete specimen description and test data.*

NATIONAL CERTIFIED TESTING LABORATORIES

A handwritten signature in black ink, appearing to read "Serge Paquet", is written over a horizontal line.

SERGE PAQUET  
Technician



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## STRUCTURAL PERFORMANCE TEST REPORT

Report No: NCTL-110-12490-2

Test Date: 10/29/09

Report Date: 11/02/09

Expiration Date: 10/31/13

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

**Test Specimen:** Superseal Manufacturing Co.'s Series "1650" Fixed Panel Vinyl Prime Window FW-R55 1219.2 x 1219.2 (48x48).

**Test Specification:** AAMA/WDMA/CSA 101/I.S.2/A440-05, "Standard/Specification for Windows, Doors and Unit Sky Lights."

### TEST SPECIMEN DESCRIPTION

**General:** The test specimen was a fixed panel vinyl prime window measuring 1219.2 mm (48") wide by 1219.2 mm (48") high overall. The fixed panel measured 1168.4 mm (46") wide by 1168.4 mm (46") high. The panel was fastened to the frame with twenty-four (24) evenly spaced screws. A rigid vinyl spacer was fastened with one (1) screw at the interior of the sill. The frame and fixed panel were of welded mitered corner construction.

**Glazing:** The fixed panel was interior glazed using sealed insulating glass with an adhesive and foam tape back-bedding and a snap-in two (2) leaf dual durometer glazing bead. The overall insulating glass thickness was 19.05 mm (3/4") consisting of two (2) lites of double strength (3.18 mm (1/8") thick) annealed glass and one (1) space created by a coated U-shaped steel spacer system (CU-D).

**Weatherseals:** One (1) strip of foam-filled bulb-vinyl weatherstrip was located at the panel perimeter. One (1) strip of bulb-vinyl weatherstrip was located at the frame perimeter.

**Weeps:** No apparent weeps employed.

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

**Sealant:** The fixed panel was sealed to the frame with a silicone sealant. The exterior glazing perimeter was sealed with a silicone sealant.

**Insect Screen:** No screen employed.

**Installation:** The specimen was installed into a standard grade 50.8 mm (2") by 254 mm (10") lumber test buck. The specimen was secured to the buck with 25.4 mm (1") roofing nails through every pre-punched hole in the nail fin. The exterior perimeter was sealed with a silicone sealant.

**TEST RESULTS**

<u>Par. No.</u>	<u>Title of Test &amp; Method</u>	<u>Measured</u>	<u>Allowed</u>
5.3.2	Air Infiltration - ASTM E 283 75 Pa – (1.6 psf) (25 mph)	0.5 L / (sec • m <sup>2</sup> ) (0.1 cfm / ft <sup>2</sup> ) (<0.01 cfm / ft <sup>2</sup> ) measured	1.5 L / (sec • m <sup>2</sup> ) (0.3 cfm / ft <sup>2</sup> )
5.3.3	Water Penetration - ASTM E 547 3.4 L / (min • m <sup>2</sup> ) 5.0 gph / ft <sup>2</sup> WTP= 140 Pa (2.9 psf)	No Leakage	No Leakage
5.3.4.2	** Uniform Load Deflection - ASTM E 330 720 Pa (15.0 psf) Exterior 720 Pa (15.0 psf) Interior	0.84 mm (0.033") 0.86 mm (0.034")	---- ----
5.3.4.3	** Uniform Load Structural - ASTM E 330 1080 Pa (22.5 psf) Exterior 1080 Pa (22.5 psf) Interior	0.05 mm (0.002") 0.10 mm (0.004")	4.65 mm (0.183") 4.65 mm (0.183")
5.3.5	Forced Entry Resistance Test - ASTM F 588 Grade 10	Meets As Stated	
5.3.6.2	Thermoplastic Corner Weld Test - ASTM D 618	Meets As Stated	

**OPTIONAL PERFORMANCE**

4.4.2.6	Water Penetration - ASTM E 547 3.4 L / (min • m <sup>2</sup> ) 5.0 gph / ft <sup>2</sup> WTP= 580 Pa (12.0 psf)	No Leakage	No Leakage
4.4.2.6	** Uniform Load Deflection - ASTM E 330 2640 Pa (55.0 psf) Exterior 2640 Pa (55.0 psf) Interior	2.59 mm (0.102") 4.04 mm (0.159")	---- ----
4.4.2.6.2	** Uniform Load Structural - ASTM E 330 3960 Pa (82.5 psf) Exterior 3960 Pa (82.5 psf) Interior	0.15 mm (0.006") 0.08 mm (0.003")	4.65 mm (0.183") 4.65 mm (0.183")

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

TEST COMPLETED 10/29/09

The tested specimen meets (or exceeds) the performance level specified in AAMA/WDMA/CSA 101/I.S.2/A440-05 for air leakage resistance. 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 FW-R55 1219.2 x 1219.2 (48x48) product designation.

*This test report was prepared by National Certified Testing Laboratory (NCTL), for the exclusive use of the above named client and it does not constitute certification of this product. The results are for the particular specimen tested and do not imply the quality of similar or identical products manufactured or installed from specifications identical to the tested product. The test specimen was supplied to NCTL by the above named client. No conclusions of any kind regarding the adequacy or inadequacy of the glass in the test specimen are to be drawn from the ASTM E 330 test. Foam tape is mounted to the perimeter of the test buck prior to clamping to the test wall. NCTL is a testing lab and assumes that all information provided by the client is accurate and does not guarantee or warranty any product tested or installed.*

*Detailed drawings were available for laboratory records and compared to the test specimen at the time of this report. Component drawings were reviewed for product verification. The bill of materials contains details with any deviations noted. Ambient conditions during the referenced testing are available upon request. A copy of this report along with representative sections of the test specimen will be retained by NCTL. This report does not constitute certification or approval of the product, which may only be granted by a certification program validator or recognized approval entity. All tests were conducted in full compliance with the referenced specifications and/or test methods. This report may not be reproduced, except in full, without the written consent of NCTL.*

NATIONAL CERTIFIED TESTING LABORATORIES



SERGE PAQUET  
Technician



ROBERT H. ZEIDERS, P.E.  
Vice-President Engineering & Quality

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

*Test Method: ASTM F 588-07, "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>
<i>A2.1 Disassembly Test</i>	<i>N/A</i>	<i>5 Minutes</i>	<i>No Entry</i>	<i>No Entry</i>
<i>A2.3 Sash Manipulation</i>	<i>N/A</i>	<i>5 Minutes</i>	<i>No Entry</i>	<i>No Entry</i>

## ***APPENDIX B***

### **Section 1:**

Component Drawings, with Applicable Part Numbers, Manufacturing and Modeling Details,  
were Reviewed (as submitted) for Product Verification  
(Reference: NCTL-110-12490-2)

See Attached Documentation;  
any deviations noted.

Note: The above referenced component drawings along with representative sections of the test specimen will be retained per procedure by NCTL. This testing facility assumes that all information provided by the client is accurate

### **Section 2:**

<u>Identification</u>	<u>Date</u>	<u>Page &amp; Revision</u>
Original Issue	11/02/09	Not Applicable

*Lewis 1650 Fixed*  
**Dominion Plastics Inc.**

*Casement Window Costing*

Customer *Superseal*

Window System *New Construction Fixed Casement*

LINEAL PRICING:

1	N-C Casement Frame	\$971.50	l/m	US
2	Casement Sash	\$675.00	l/m	US
3	Glazing Bead	\$190.80	l/m	US

Date: 25-Oct-01

Size: Width                      Height

28                      X                      56

84 U.I.

10.89 Sq. Ft.

Weld Added:                      1/4

Currency:                      US

FORMULA:

Die No.	Description	Formula	Cut Length	Pcs. Req'd	Mat'l Usage
1	N-C Casement Frame	FW + 2.750" + "	31.000 "	2	5.17 Fl.
1	N-C Casement Frame	FH + 2.750" + "	59.000 "	2	9.93 Fl.
2	Casement Sash	FW - 2.125" + "	26.125 "	2	4.35 Fl.
2	Casement Sash	FH - 2.125" + "	54.125 "	2	9.02 Fl.
3	Glazing Bead	FW - 5.000"	23.000 "	2	3.83 Fl.
3	Glazing Bead	FH - 6.625"	49.375 "	2	8.23 Fl.
GLASS	3/4" I.G. UNIT	FW - 5.625"	22 3/8 "	1	7.83 Sq Ft.
		FH - 5.625"	50 3/8 "		
Sash Shim	Extruded Aluminum	.2" Long	2	8	1.33 Fl.
		2 Pcs. / Side			

VINYL COST BREAKDOWN:

1	N-C Casement Frame	15.00 Ft@ \$0.972	\$14.57
2	Casement Sash	13.38 Ft@ \$0.675	\$9.03
3	Glazing Bead	12.06 Ft@ \$0.191	\$2.30

Cost/U.I.                      Cost/Sq.Ft.                      Vinyl Total:                      \$25.90  
 \$0.31                      \$2.38

TEST SPECIMEN COMPLIES  
 WITH THESE DETAILS.  
 ANY DEVIATION IS NOTED  
 REPORT NO. NCTL-110-12490.2  
 TEST DATE 10-29-01