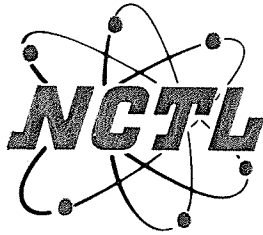


**SUPERSEAL MANUFACTURING COMPANY**

**STRUCTURAL TEST REPORT**

Series "1250" Type XO H/S Vinyl

NCTL-110-6615-1



# NATIONAL CERTIFIED TESTING LABORATORIES

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## STRUCTURAL PERFORMANCE TEST REPORT

REPORT NO: NCTL-110-6615-1  
TEST DATE: 01/26/99  
REPORT DATE: 03/11/99  
EXPIRATION DATE: 01/31/03

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

**Test Specimen:** Superseal Manufacturing Company's Series "1250" Type XO Horizontal Sliding Vinyl Prime Window (HS-LC30 72x54).

**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 XO horizontal sliding vinyl prime window measuring 72" wide by 54" high overall. The active panel measured 35-1/4" wide by 51-1/4" high. The fixed lite was glazed to the frame members, providing a viewing area of 32-7/8" wide by 49-3/8" high. One (1) metal cam-type sweep lock was located at 9-1/4" from each end of the active meeting stile. The metal keepers were located on the fixed meeting stile at the lock positions. A rigid vinyl roller track was snap-fitted at the interior sill track. A rigid vinyl screen retainer clip was snap-fitted at 7-1/2" from each end of the active exterior jamb track. One (1) extruded aluminum reinforcement channel (0.050" thick) filled the length of the active meeting stile hollow. One (1) 46-1/2" long extruded aluminum reinforcement channel (0.050" thick) was housed by the fixed meeting stile hollow. The frame and active panel were of welded mitered corner construction.

**Glazing:** The active panel was exterior glazed using sealed insulating glass with an adhesive foam tape back-bedding and a snap-in two leaf dual durometer glazing bead. The fixed lite was interior glazed using sealed insulating glass with an adhesive foam tape back-bedding and a snap-in two 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 center fin weatherstrip (0.230" high) was located at the fixed meeting stile, all active panel members, the head, sill and active jamb. A single strip of center fin weatherstrip (0.250" high) was located at the top and bottom rails. A single strip of bulb-vinyl weatherstrip was located at the jamb stile. An adhesive backed polypile dust pad (0.290" high) measuring 5/8" long was located at each end of the fixed meeting stile on the center head and sill legs.

**Weeps:** One (1) weep hole measuring 1/4" x 1/8" was located at each end of the center sill leg. One (1) weep hole measuring 1/2" x 3/16" was located at 3/4" from each end of the active exterior sill track. One (1) weep hole measuring 1/2" x 3/16" was located on the fixed lite sill glazing channel at 1/2" from the fixed jamb. One (1) weep hole measuring 1-1/4" x 1/4" and employing a plastic weep cover was located at 3" from each end of the exterior sill face.

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

**Sealant:** The ends of the fixed meeting stile were sealed with a small-joint sealant.

**Screen:** An insect screen measuring 33-11/16" wide by 50-7/16" high was of butt type corner construction with pressure-fitted plastic corner keys. The screen employed fiberglass mesh cloth with a solid vinyl spline, two (2) pull tabs, and two (2) jamb retainer springs.

### 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 Left Right	12 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) Jamb Stile (70 lbf) Meeting Stile (70 lbf)	8.0% (0.040") 7.0% (0.035") 10.4% (0.052") 11.8% (0.059")	<100% <100% <100% <100%
2.1.2	Air Infiltration - ASTM E283 0.57 psf (15 mph)  1.57 psf (25 mph)	0.1 cfm/ft <sup>2</sup> (0.02 cfm/ft <sup>2</sup> )  0.1 cfm/ft <sup>2</sup> (0.06 cfm/ft <sup>2</sup> )	-----  0.3 cfm/ft <sup>2</sup>
2.1.3	* Water Resistance - ASTM E547 5.0 GPH/FT <sup>2</sup> WTP= 3.75 psf	No Leakage	No Leakage
2.1.4.2	** Uniform Load Structural - ASTM E330 37.5 psf Exterior 37.5 psf Interior	0.049" 0.079"	0.150" 0.150"
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**

<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= 4.50 psf	No Leakage	No Leakage
4.4.2	** Uniform Load Structural - ASTM E330 45.0 psf Exterior 45.0 psf Interior	0.120" 0.134"	0.150" 0.150"
	* Tested with and without screen		
	** No glass breakage or permanent damage causing the unit to be inoperable		

TEST COMPLETED 01/26/99

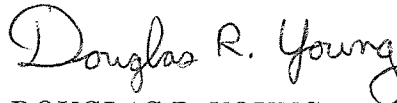
The tested specimen meets (or exceeds) the performance levels specified in Table 2.1 of AAMA/NWWDA 101/I.S.2-97 for air infiltration. The listed results were secured by using the designated test methods and indicate compliance with the performance requirements of the referenced specification paragraphs for the HS-LC30 72x54 product designation.

Detailed drawings were available for laboratory records and comparison 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



MARC A. CRAMER  
Technician



DOUGLAS R. YOUNG  
Acting Manager of Testing Services

**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