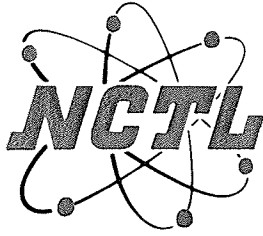


**SUPERSEAL MANUFACTURING CO.**

STRUCTURAL PERFORMANCE TEST REPORT

Series "1850" Tilt Double Hung Vinyl Prime Window

NCTL-110-8297-1



## NATIONAL CERTIFIED TESTING LABORATORIES

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### STRUCTURAL PERFORMANCE TEST REPORT

Report No: NCTL-110-8297-1  
Test Date: 08/15/02  
Report Date: 09/16/02  
Expiration Date: 08/31/06

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

**Test Specimen:** Superseal Manufacturing Co.'s Series "1850" Tilt Double Hung Vinyl Prime Window.

**Test Methods:** ASTM E283-91 "Standard Test Method For Determining the Rate Of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across The Specimen."; ASTM E547-86 "Standard Test Method For Water Penetration of Exterior Windows, Curtain Walls, and Doors By Cyclic Static Air Pressure Differential"; E330-97, "Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference".

**General:** The test specimen was a one-over-one tilt double hung vinyl prime window measuring 36-3/8" wide by 72-7/8" high. The top sash measured 32-3/4" wide by 36-1/8" high. The bottom sash measured 33-7/8" wide by 35" high. Both sash were removable via a single block and tackle balance with locking tilt shoe located in each jamb track. One (1) metal cam-type sweep lock was located at 7-1/2" from each end of the interior meeting rail. The metal keepers were located on the exterior meeting rail at the lock positions. One (1) metal tilt latch with thumb actuator was located at each end of the interior meeting rail. One (1) plastic tilt latch with thumb actuator was housed at each end of the top rail. One (1) T-shaped die-cast metal pivot bar was fastened with one (1) screw at each end of the exterior meeting rail and bottom rail. A rigid vinyl sash stop was snap-fitted at the top of each interior jamb track and bottom of each exterior jamb track. One (1) extruded aluminum C-shaped reinforcement bar (0.060" thick) filled the length of the bottom rail hollow. One (1) steel reinforcement bar measuring 0.910" x 0.420" filled the length of the sash stiles and the interior meeting rail hollow. One (1) steel reinforcement bar measuring 0.960" x 0.550" filled the length of the exterior meeting rail hollow. A wood reinforcement block measuring 0.835" x 0.525" was slide-fitted at the exterior face of each jamb. An 18" long extruded aluminum clip was snap-fitted to the jambs at midspan and secured to the buck with screws. The head/jamb and sash were of welded mitered corner construction. The sill/ jamb corners were of triple screw butt-type corner construction with closed cell foam gaskets.

**Glazing:** Both sash were exterior glazed using sealed insulating glass with a foam tape back-bedding and a snap-in rigid vinyl 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:** One (1) strip of center fin weatherstrip (0.230" high) was located at the sill and the top rail. Three (3) strips of center fin weatherstrip (0.230" high) were located at the sash stiles. One (1) strip of center fin weatherstrip (0.400" high) was located at the interior and exterior meeting rail. One (1) strip of single-leaf vinyl wrapped foam weatherstrip was located at the bottom rail.

**Weeps:** One (1) weep hole measuring 3/8" x 3/16" was located at 2-3/4" from each end of the exterior meeting rail and bottom rail glazing track. Three (3) weep notches measuring 1" were located at 2" from each end of the sill face and screen track.

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

**Sealant:** The glazing corners were sealed with a silicone sealant.

**Insect Screen:** An insect screen measuring 32-11/16" wide by 69-3/4" 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.

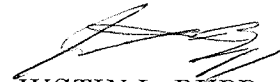
### TEST RESULTS

| <i>Test Method</i> | <i>Title of Test</i>  | <i>Measured</i>  |
|--------------------|---|--|
| ASTM E283          | Air Infiltration<br>1.57 psf (25 mph)                             | 0.1 cfm/ft <sup>2</sup><br>(0.11 cfm/ft <sup>2</sup> ) |
| ASTM E547          | Water Resistance<br>5.0 gph/ft <sup>2</sup><br>WTP= 7.5 psf       | No Leakage   |
| ASTM E330          | Uniform Load Structural<br>75.0 psf exterior<br>75.0 psf interior | 0.005"<br>0.022"                                       |

TEST COMPLETED 05/09/00

*A copy of this report (along with representative sections of the test specimen) will be retained by NCTL for 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.*

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