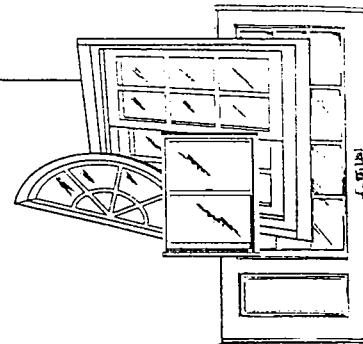


CERTIFIED TESTING LABORATORIES

Architectural Division • 7252 Narcoossee Rd. • Orlando, FL 32822
(407) 384-7744 • Fax (407) 384-7751
Web Site: www.ctlarch.com
E-mail: ctlarch.com



Report Number: CTLA-886W
Report Date: July 26, 2002

STRUCTURAL PERFORMANCE TEST REPORT

Client: SEASONSHIELD INCORPORATED
355 CENTER COURT
VENICE, FLORIDA 34292

Product Type and Series: 7200 Series Vinyl Horizontal Slider HS-R30 (75" x 51")

Test Specifications: AAMA/NWWDA 101/I.S.2-97 "Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors"

Frame: Vinyl horizontal sliding flange frame window measured 74.5" x 51" overall. The main frame corners were mitered and secured by corner weld construction. The fixed meeting stile was coped and fastened to the main frame head and sill with one (1) #8 x 2.50" PH., PH. screws.

Configuration: OX

Ventilator: One (1) active panel measuring 41.50" x 35.50" with a clear lite measuring 32.50" x 44.50". One (1) fixed lite measured 32.75" x 44.75". Corners were mitered and secured by corner weld construction.

Weather Stripping:	Quantity	Description	Location
	One (1) strip	Woolpile .250" high w/ integral plastic fin	Frame head, sill and jambs interior
	One (1) strip	Woolpile .250" high w/ integral plastic fin	Sash top, bottom rails
	One (1) strip	Woolpile .250" high w/ integral plastic fin	Pull stile exterior
	One (1) strip	Woolpile .400" high w/ double plastic fin	Sash interlock exterior

Hardware & Location:

Quantity	Description	Location
Two (2)	Metallic cam locks	Sash interlock
Two (2)	Sash rollers	Sash bottom rail corners

Glazing: 3/16" annealed glass; sash exterior glazed with an adhesive backbedding compound and vinyl snap in glazing bead. Fixed lite interior glazed with an adhesive backbedding compound and vinyl snap in glazing bead.

Sealant: A narrow joint seam sealer was used to secure specimen to the wooden test buck.

[Handwritten signature]
8/1/02

Weep System Two (2) weep slots located 4" from each corner of sill weeping to the exterior.

Muntins: N/A

Screen: Roll formed aluminum frame, fiberglass mesh with vinyl spline measuring 33.75" x 45.75". Two (2) metallic springs and two (2) plastic pull tabs. Corners secured with plastic corner keys.

Reinforcement: All sash members have an aluminum reinforcement insert. Sash top and bottom rails .787" x .433" x length. Sash interlock and pull stile .580" x .895" x length. Fixed meeting stile .655" x .755" x length.

Additional Description: N/A

Installation: Sixteen (16) #8 x 1.25 PH., PH. were used to secure specimen into the wooden test buck. Five (5) located in head and sill measuring 8", 22.50", 36.50", 51" and 65" from left jamb. Three (3) located in each jamb measuring 8", 25" and 42" from head.

Surface Finish: White vinyl

Comment: Nominal 2 mil polyethylene film was used to seal against air leakage during structural loads. The film was used in a manner that did not influence the test results.

Performance Test Results

<u>Paragraph No.</u>	<u>Title of Test</u>	<u>Method</u>	<u>Measured</u>	<u>Allowed</u>
2.1.2	Air Infiltration @1.57 psf	ASTM E283-91	.19cfm/ft ²	.34 cfm/ft ²
The tested specimen meets or exceeds the performance levels specified in AAMA/NWWDA 101/I.S.2-97. Results recorded in two (2) decimals at the clients request.				
2.1.3	Water Resistance 5.0 gph/ft ² WTP= 4.5 psf	ASTM E547-93 Four (4) five minute cycles	No Entry	No Entry
2.1.4.2	Uniform Load Structural Permanent Deformation @45 psf positive @45 psf negative	ASTM E330-90	.006" .014"	.142" .142"
2.1.8	Forced Entry Resistance Test A Test B Test C Test D,E and F Test G	AAMA 1302.5-76	0" 0" 0" 0" 0"	1/2" 1/2" 1/2" 1/2" 1/2"

Handwritten signature and date:
8/7/02

Performance Test Results (continued)

Paragraph No.	Title of Test	Method	Measured	Allowed
2.2.2.5.1	Operating Force Active panel	AAMA/NWWDA 101/I.S.2-97	8.5lbs.	20lbs.
2.2.2.5.2	Deglazing	ASTM E987-88		
	Top Rail 50 lbs.		.024"= 4.8%	<100%
	Bottom Rail 50 lbs.		.022"= 4.4%	<100%
	Left Side 70 lbs.		.018"= 3.6%	<100%
	Right Side 70 lbs.		.015"= 3.0%	<100%
2.1.7	Welded Corner Test	AAMA/NWWDA 101/I.S. 2-97		Passed

Test Date: April 22, 2002

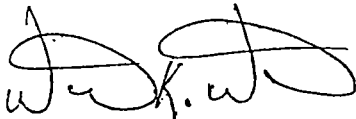
Test Completion Date: April 22, 2002

Remarks: 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 CTL for a period of four (4) years. The results obtained apply only to the specimen tested.

This test report does not constitute certification of this product, but only that the above test results were obtained using the designated test methods and they indicate compliance with the performance requirements (paragraphs as listed) of the above referenced specifications.

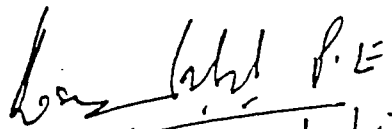
Certified Testing Laboratories assumes that all information provided by the client is accurate and that the physical and chemical properties of the components are as stated by the manufacturer.

Certified Testing Laboratories, Inc.



Walter Williams
Lab Technician
Architectural Division

cc: Seasonshield Inc. (2)
A.L.I. (2)
Ramesh Patel P.E. (1)
File (1)



Ramesh Patel P.E.
Florida Reg# 20224
8/2/02