

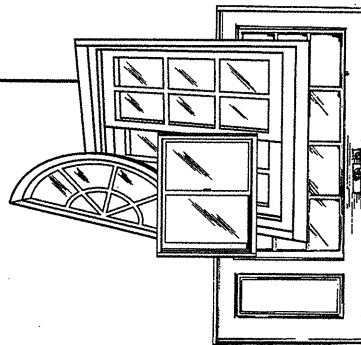
CERTIFIED TESTING LABORATORIES

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Report Number **CTLA-885W-8**

Report Date: **May 20, 2002**

STRUCTURAL PERFORMANCE TEST REPORT

Client: Energy Saving Products of Florida, Inc.
P. O. Box 1119
Jasper, Florida 32052

Product Type and Series: **Vinyl Sliding Glass Door SGD-R40 (75" x 98")**

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

Frame: The vinyl main frame measured 71.50" x 95.50" high. The main frame corners were mitered and secured by corner weld construction.

Configuration: OX

Panels: Active and inactive panels measured 36.50" x 93" with a clear lite of 32" x 88.75".

Weather-stripping:

| <u>Quality</u> | <u>Description</u> | <u>Location</u> |
|----------------|---|-------------------|
| One (1) strip | Wool pile .200" high w/ integral plastic fin | Panel interlocks |
| Two (2) strips | Wool pile .200" high w/ integral plastic fin | Panel top rail |
| Two (2) strips | Wool pile .350" high w/ integral plastic fin | Panel bottom rail |

Hardware & Location:

| <u>Quality</u> | <u>Description</u> | <u>Location</u> |
|----------------|--|--------------------------------------|
| Two (2) | Panel clips | Frame head/sill at each interlock |
| Two (2) | Metallic roller housing w/ metallic wheel | Each panel bottom rail |
| One (1) | Metallic lock assembly | Each panel lock stile |
| One (1) | Metallic keeper | Each frame jamb |

Glazing: 3/16" Clear tempered impact glass, exterior glazed with silicone back bedding compound and vinyl glazing bead interior.

Sealant: A silicone sealant was used to seal the specimen to the wooden test buck.

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- Weep system:** One (1) .480" x .1875" high weep, located in each corner of the sill track weeping into sill can.
One (1) 1.00" x .250" weep, located in sill face 4.50" from each jamb weeping to exterior.
- Reinforcements:** One (1) Galvanized steel bar inside mullion measuring 1.290"x 1.415"x .109". One (1) Galvanized steel bar inside meeting stile measuring 1.190"x 1.110"x .109".
- Additional Description:** N/A
- Screen:** Roll formed aluminum screen with fiberglass mesh and vinyl spline and plastic corner keys.
- Installation:** Fifty (50) #8 x 3" P.H., P.H. fasteners were used to secure specimen to wooden test buck. Ten (10) in the head and sill measuring from left jamb 3", 11", 18", 25.50", 33.25", 40.50", 48", 55.50", 64.25 and 72". Fifteen (15) in each jamb measuring from head 3", 9.50", 16", 22.50", 29", 35.50", 42", 48.50", 55", 61.50", 68.25", 74.50", 81", 88", and 92.50".
- Surface Finish:** White
- 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 E 283-91 | .18 cfm/ft ² | .34 cfm/ft ² |

The specimen as tested exceeds the performance levels specified in AAMA/NWWDA 101/I.S. 2-97

| | | | | |
|-----------|---|---|----------|----------|
| 2.1.3/4.3 | Water Resistance 5.0 gph/ft ² | ASTM E547-93 Four (4) five minute cycles | No Entry | No Entry |
| | WTP= 7.5 psf | ASTM E331-93 Fifteen(15)minute duration | No Entry | No Entry |

Unit tested with and without insect screen.

| | | | | |
|---------------|---|--------------------------|----------------|----------------|
| 2.1.4.2/4.4.2 | Uniform Load Structural | ASTM E331-93 | Measured | Allowed |
| | Permanent Deformation @60 psf Positive @60 psf Negative | Ten (10) second duration | .089" .022" | .372" .372" |

| | | | | |
|-------|-------------------------|----------------|---|------|
| 2.1.8 | Forced Entry Resistance | AAMA 1303.5-76 | | |
| | Test A | | 0 | 1/2" |
| | Test B | | 0 | 1/2" |
| | Test C | | 0 | 1/2" |
| | Test D, E, & F | | 0 | 1/2" |
| | Test G | | 0 | 1/2" |

W. H. P. E.
6/25/02

Performance Test Results (continued)

| | | | |
|------------|-----------------|---------------------------------------|--------------------------------------|
| 2.2.19.5.1 | Operating Force | AAMA/NWWDA 101/I.S. 2-97 | |
| | | Measured to open/to keep in motion | Allowed to open/to keep in motion |
| | Active Panel | 20 lbs. 12 lbs. | 30 lbs 20 lbs |
| 2.2.19.5.2 | Deglazing | ASTM E 987-88 | |
| | Top Rail | 50 lbs | .017= 3.4 % < 100% |
| | Bottom Rail | 50 lbs | .015= 3.0 % < 100% |
| | Left Stile | 70 lbs | .026= 5.2 % < 100% |
| | Right Stile | 70 lbs | .021= 4.2 % < 100% |

Test Date: April 16, 2002

Test Completion Date: April 16, 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.

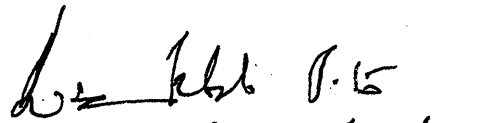
Certified Testing Laboratories assumes that all information provided by the client is accurate and that the physical and chemical properties of the components are as stated by the manufacturer.

Certified Testing Laboratories, Inc.



Walter Williams
Lab Technician
Architectural Division

cc: Energy Savings Products (2)
A.L.I. (2)
Ramesh Patel, P.E (1)
File (1)



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