

MID AMERICA TESTING LABORATORY, INC.

10525 SIGNAL HILL DRIVE • CATAWISSA, MISSOURI 63015
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WINDOW MANUFACTURER: Mayfair Windows and Doors
 4100 Cameron Street
 Lafayette, LA 70506

MODEL NUMBER: Series 530 / 570 Single-Hung

PERFORMANCE CLASS: H-R45 44" X 72"

JOB NUMBER: Q1085W-C

DATE OF REPORT: December 10, 2001

LOCATION OF TESTING: Mid America Testing Laboratory

DATES OF TESTING: October 15 and 16, 2001

EXPERATION DATE: October 15, 2005

All tests were conducted in accordance with procedures outlined in AAMA/NWDA 101/LS-2-97 and applicable ASTM standards.

The following were present for all or portions of the laboratory testing.

Mr. Al Thibodeaux
 Mr. Gene Keeton
 Mr. Travis Swisshelm
 Mr. Rick Heitmann

Mayfair Windows and Doors
 Mid America Testing Laboratory
 Mid America Testing Laboratory
 Mid America Testing Laboratory

UNIT DESCRIPTION

The Series 530/570 single hung window unit, manufactured by Mayfair and identified by Mayfair as Unit #8, was installed onto a test wall by laboratory personnel for purposes structural testing. The specimen tested was secured to a southern yellow pine wood buck with twenty (20) #8 X 1 1/2" HWH-SMS fasteners. Four (4) were in the head and sill 4" from each corner, nominally 12" O.C. and six (6) in each jamb 4" from each corner, nominally 12" O.C. The overall frame had a dimension of 44" wide X 72" tall. The operable sash had a dimension of 43" wide X 31" tall.

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The Series 530/570 unit was glazed with a nominal 1/8" clear annealed glass. The glazing on both the operable sash and the fixed frame were with an acrylic bedding compound on the interior and a vinyl-glazing bead on exterior. The Series 570 is glazed the same but incorporates insulated glass.

The sash was weathered with fin seal weather stripping on both the interior and exterior sides of the sash and a line at the top of gutter leg on sill. A .350" high vinyl bulb gasket was used on the bottom of sash.

The sash was operated by spiral balance system fixed to frame jambs and was locked with two (2) locks located on the sash at quarter points of meeting rail along with two (2) tilt latches located at the corners.

The window construction consisted of coped corner construction fastened with two (2) #8 x .750" Phillips head, P.H., S.M.S. at each frame head and sill corners. One (1) #8 x 1" hex head S.M.S. secured the fixed meeting rail to the frame. The sash was secured with one (1) #8 x .750" Phillips O.H., S.M.S. located at each corner. All corner joints were sealed with a narrow joint sealant. The window was weeped by two (2) weep notches .250" lg. ht. located at each end of sill screen retainer leg. The Series 530 (R-45) incorporated an R=45 sill over standard R-40 sill.

FORMAL TESTING

Tests were conducted on the 44" wide X 72" tall single hung provided by Mayfair and installed onto the test wall by laboratory personnel. Tests were conducted in substantial accordance with the test procedures outlined and described below utilizing the applicable AAMA and ASTM standards.

1. **2.1.4.1 UNIFORM LOAD DEFLECTION TEST** (ASTM E 330) Held for ten (10) seconds duration for both 50% and 100% loads. Deflections were measured with dial indicators at both 50% and 100% loads:

- +22.5 PSF (50% Positive Design Load) to remove slack
- +45.0 PSF (100% Positive Design Load)
- 22.5 PSF (50% Negative Design Load) to remove slack
- 45.0 PSF (100% Negative Design Load)

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ALLOWED: Deflection of framing members shall not exceed $L/175$ of the span length nor shall there be any failure of the system.

RESULTS: No member exceeded the maximum deflection nor was there any failure of the system.

The tested specimen meets the performance levels specified in AAMA/NWWDA 101/I.S.2-97 and ASTM E 330.

2. **2.1.4.2 UNIFORM LOAD STRUCTURAL TEST (ASTM E 330)** at 1.5 times design load for ten (10) seconds duration in both directions. Deflections and permanent sets were measured at 1.5 times only:

+33.75 PSF (75% Positive Design Load) to remove slack
+67.50 PSF (150% Positive Design Load)
-33.75 PSF (75% Negative Design Load) to remove slack
-67.50 PSF (150% Negative Design Load)

ALLOWED: Permanent set of framing members shall not exceed .4% of the span length nor shall there be any failure of the system.

RESULTS: No member exceeded the permanent set nor was there any failure of the system.

The tested specimen meets the performance levels specified in AAMA/NWWDA 101/I.S.2-97 and ASTM E 330.

SUMMARY

The Series 530/570 single hung window unit as described in this report has met or exceeded all applicable test criteria set forth in AAMA/NWWDA 101/I.S.2-97 for a performance class of H-R-45.

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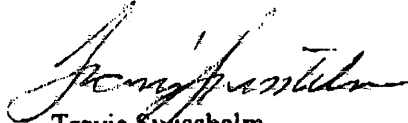
Laboratory. Participants referenced in the test report are welcome to a copy of this test report if so desired by the laboratory's client.

A bill of materials and die drawings are on file and have been compared to the sample submitted. Samples of the test specimen will be retained at the laboratory. A copy of this report will be forwarded to the validator.

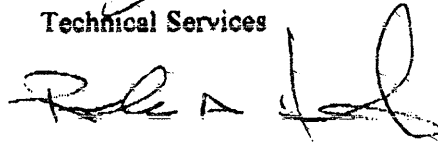
The above results were secured by using the designated test methods, which indicate compliance with the performance requirements of the referenced specification. This report does not constitute certification of this product, which may only be granted by the validator.

Respectfully submitted,

MID AMERICA TESTING LABORATORY



Travis Swisshelm
Technical Services



Rick A. Heitmann
President

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