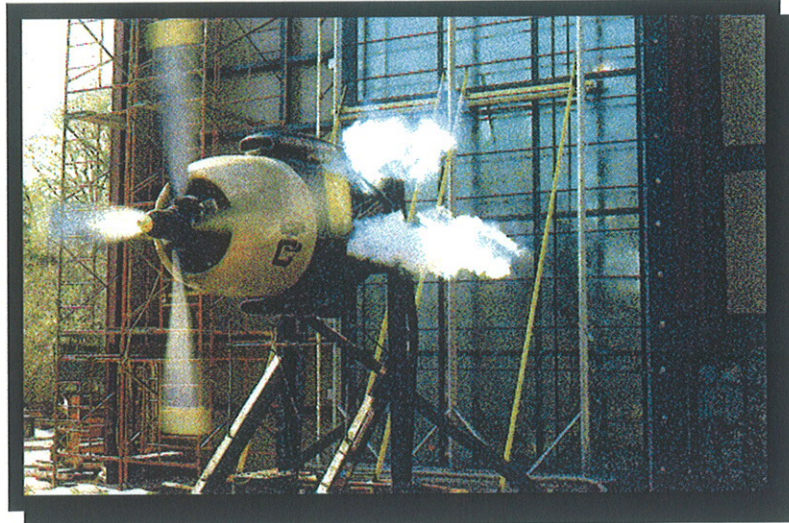




CONSTRUCTION CONSULTING LABORATORY, *INTERNATIONAL*



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**TEST REPORT:**

**AAMA/WDMA/CSA 101/I.S.2/A440-08  
MI Windows and Doors, LLC.  
SERIES 5610 Polyvinyl Chloride (PVC) FIXED WINDOW  
REPORT #CCLI-12-223**

**December 20, 2012  
Report Revised January 17, 2013**

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Prepared for:

**MI Windows and Doors, LLC.**  
1001 West Crosby Road  
Carrollton, Texas 75006

1601 Luna Road  
Carrollton, Texas 75006

**S-UNITED, INC.**  
*A Quality Control Company*

Office: 972-242-0556  
FAX: 972-245-6047

# Uniform Load Distribution Calculations

ULD Calculations are per AAMA Technical Interpretation #33

Series/Model 5610 Fixed

**Tested Unit** Insert Values

Width	72 in	←
Height	72 in	←

Design Pressure	50.0 psf	←
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Structural Test Pressure	75.00 psf
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ULD of Width

Area	9.00 ft <sup>2</sup>
ULD	112.50 lb / ft

ULD of Height

Area	9.00 ft <sup>2</sup>
ULD	112.50 lb / ft

**Compared Unit** Insert Values

Width	48 in	←
Height	96 in	←

Design Pressure	50.0 psf	←
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Structural Test Pressure	75.00 psf
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ULD of Width

Area	4.00 ft <sup>2</sup>
ULD	75.00 lb / ft

Unit meets tested ULD

ULD of Height

Area	12.00 ft <sup>2</sup>
ULD	112.50 lb / ft

Unit meets tested ULD

Maximum  
Structural Test Pressure 75.00 psf

Maximum  
AAMA Design Pressure 50.0 psf



December 20, 2012  
 Revision Date: January 17, 2013\*  
 Revision Date: November 11, 2013\*

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### APPENDIX

\*Report CCLI 12-223 revised 1-17-13 to include 5.3.6.2 Thermoplastic Corner Weld Test and to include nailing fin under Section 3: Installation Features.

\*Report CCLI 12-223 revised on 11-11-13 to include series 5600/5900

#### APPENDIX A: SERIES 5610 Polyvinyl Chloride (PVC) FIXED WINDOW DRAWINGS

Note: This product also labeled under the following names 4000/4050/4080/5600/5900

Refer to drawings in **Appendix A**. This report is not complete unless these drawings are stamped and initialed by **CCLI** as illustrated below.

Die/Series	Detail	Date	Stamped as Illustrated
BOM		12/9/10	<b>CONSTRUCTION            CONSULTING            LABORATORY,            INTERNATIONAL</b> <b>1601 Luna Road            Carrollton, Texas 75006</b> <b>Phone (972) 242-9556</b>
Assembly Drawing	4000/4080 Assembly	11/18/10	
Frame	SS4901	8/28/03	
Glazing Bead	BV50	10/7/04	
Frame Pocket Filler	V-860	1/15/08	

Report# 12-223 Date 11-11-13  
 Reviewed BY GU Revised



## 1. PROJECT DATA

**Project:** Series 5610 Polyvinyl Chloride (PVC) Fixed Window  
AAMA/WDMA/CSA 101/I.S.2/A440-08

**Date of Testing:** December 20, 2012

**Tested For:** MI Windows and Doors, LLC.  
1001 West Crosby Road  
Carrollton, Texas 75006

**Test Performed at:** MI Windows and Doors, LLC.

**Witnessed By:** (All or Partial Viewing)

Brandon Newman Construction Consulting Laboratory, *International (CCLI)*  
Taylor Rix MI Windows and Doors, LLC.

## 2. SUMMARY

This report presents the performance results of Series PRO 5610 PVC Fixed Window. Tests were conducted at MI Windows and Doors, LLC. in Carrollton, TX. Tests were performed in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-08 "Standard/Specification for Windows, Doors, and Unit Skylights".

## 3. TEST SPECIMEN

**PRODUCT TYPE:** Aluminum Fixed Window, **Product Drawing, Appendix A**  
**Series/Model:** Series 5610 Polyvinyl Chloride (PVC) Fixed Window  
**Specification:** AAMA/WDMA/CSA 101/I.S.2/A440-08  
R-PG50-FW 1829 x 1829 (72 x 72)

**Frame Size:** 1829 x 1829 (6'-0" x 6'-0")  
**DLO:** 1753 x 1753 (69" x 69")  
**Configuration:** O  
**Weather Strip:** None.

**Glazing:** Exterior glazed with double sided tape and a rigid vinyl glazing bead.



**Weep Arrangement:** 38.1mm x 6.35mm (1<sup>1</sup>/<sub>2</sub>" x 1/4") weep located at exterior face of sill 88.9mm (3<sup>1</sup>/<sub>2</sub>") on center from each end of frame sill through two exterior legs. 6.35mm x 3.175mm (1/4" x 1/8") oval weep located 88.9mm (3<sup>1</sup>/<sub>2</sub>") from each end in glass pocket. 25.4mm x 3.175mm (1" x 1/8") oval weep located 88.9mm (3<sup>1</sup>/<sub>2</sub>") from each end at interior frame pocket. Open cell foam baffles inserted into frame hollow at interior weeps.

**Glass:** 19.05mm (3/4") overall thickness sealed insulating glass. Two pieces, 4.8mm (3/16") annealed glass with 9.5mm (3/8") duraseal airspace.

**Narrow Joint Sealant:** None.

**Hardware:** None.

**Other features:** Frame corners are mitered and welded.

**Installation Features:** Test specimens were installed in a #2 50.8mm x 304mm (2" x 12") wrapped nominal 50.8mm x 101.6mm (2" x 4") wood test buck with silicone and 25.4mm #8 x (1") screws through nailing fin spaced 152.4mm (6") from corners and on 495.3mm (19<sup>1</sup>/<sub>2</sub>") centers.

#### 4. PERFORMANCE RESULTS

##### Specification

<u>Paragraph No.</u>	<u>Title of Test</u>	<u>Test Method</u>	<u>Measured</u>	<u>Allowed</u>
5.3.2	Air Infiltration @ 75.17 Pa (1.57 psf)	ASTM E 283-04	.10 L/s·m <sup>2</sup> (.02 cfm/sf)	1.5 L/s·m <sup>2</sup> (0.30 cfm/sf)
5.3.3	Water Resistance @ 360 Pa (7.5 psf)	ASTM E 547	No Leakage	No Leakage
5.3.4.2	Uniform Deflection @ 2400 Pa (50 psf) -Positive -Negative	ASTM E 330-02	2.03mm (.08") 3.30mm (.13")	reported reported
5.3.4.3	Uniform Structural -Positive  -Negative  -Permanent Set	ASTM E 330-02	3600 Pa 75.00 psf 3600 Pa 75.00 psf Negligible	3600 Pa 75.00 psf 3600 Pa 75.00 psf 2mm (.078)

(The tested specimen exceeds the performance levels in AAMA/WDMA/CSA 101/I.S.2/A440-05 for air infiltration. Air values were reported at the request of the manufacturer.)



<u>Specification Paragraph No.</u>	<u>Title of Test</u>	<u>Test Method</u>	<u>Measured</u>	<u>Allowed</u>
5.3.5	Forced Entry Resistance ASTM F 588-07 Grade 10		No Entry	No Entry
5.3.6.2	Thermoplastic Corner Weld Test		Break Not Along Weld	Break Not Along Weld


Detailed extrusion and assembly drawings indicating measured wall thickness and corner construction are on file and were compared to the test sample submitted. These records will be retained at CCLI for a period of four years.

## 5. CONCLUSION

The above results were obtained by using the designated test methods indicating compliance with the above specification. This report does not constitute certification of this product, which may only be granted by the program administrator.

Respectfully submitted,

**CONSTRUCTION CONSULTING LABORATORY, *INTERNATIONAL***

  
 BRANDON NEWMAN  
 ASSISTANT TESTING MANAGER

  
 WESLEY WILSON  
 LABORATORY MANAGER



## APPENDIX A

### PROJECT DRAWINGS

Die/Series	Detail	Date
BOM		12/9/10
Assembly Drawing	4000/4080 Assembly	11/18/10
Frame	SS4901	8/28/03
Glazing Bead	BV50	10/7/04
Frame Pocket Filler	V-860	1/15/08

END OF REPORT