



Architectural Testing

**ASTM E 90 SOUND TRANSMISSION LOSS
TEST REPORT**

Rendered to:

MI WINDOWS AND DOORS, INC.

SERIES/MODEL: 3500

TYPE: Single Hung Window

Summary of Test Results			
Data File No.	Glazing (Nominal Dimensions)	STC	OITC
A4978.01	7/8" IG (1/4" laminated exterior, 5/16" air space, 5/16" laminated interior), Glass temperature 74		

130 Derry Court
York, PA 17406-8405
phone: 717-764-7700
fax: 717-764-4129
www.archtest.com

ACOUSTICAL PERFORMANCE TEST REPORT

Rendered to:

MI WINDOWS AND DOORS, INC.
P.O. Box 370
650 West Market Street
Gratz, Pennsylvania 17030-0370

Report No: A4978.01-113-11
Test Date: 11/10/10
Report Date: 11/18/10
Record Retention End Date: 11/10/14

Test Sample Identification:

Series/Model: 3500

Type: Single Hung Window

Overall Size: 47-1/4" by 59"

Glazing (Nominal Dimensions): 7/8" IG (1/4" Laminated Exterior, 5/16" Air Space, 5/16" Laminated Interior), Glass Temperature 74°F

Project Scope: Architectural Testing, Inc. was contracted by MI Windows and Doors, Inc. to conduct a sound transmission loss test on a Series/Model 3500, single hung window. A summary of the results is listed in the Test Results section and the complete test data is included as Appendix B of this report. The sample was provided by the client.

Test Methods: The acoustical tests were conducted in accordance with the following:

ASTM E 90-09, Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions.

ASTM E 413-10, Classification for Rating Sound Insulation.

ASTM E 1332-10a, Standard Classification for Rating Outdoor-Indoor Sound Attenuation.

ASTM E 2235-04, Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods.

Test Equipment: The equipment used to conduct these tests meets the requirements of ASTM E 90. The microphones were calibrated before conducting sound transmission loss tests. The test equipment and test chamber descriptions are listed in Appendix A.





Sample Descriptions



Sample Descriptions: (Continued)

Components:

TYPE	QUANTITY	LOCATION
Weatherstrip		
0.187" by 0.250" Poly pile with center fin	2 Rows	Stiles
0.187" by 0.250" Poly pile with center fin	1 Row	Lock rail and sill
1/8" Diameter kerf mounted foam-filled bulb gasket	1 Row	Keeper rail
5/16" Diameter kerf mounted foam-filled bulb gasket with single 1/8" leaf	1 Row	Bottom rail
Poly pile with center fin	1 Row	Sill
Hardware		
Constant force balance	2	Jambs
Cam lock	2	Lock rail
Keeper	2	Keeper rail
Tilt latch with tilt bar	2	Active sash corners
Drainage		
1/2" by 3/16" Weep slot	2	Sill
1" by 1/8" Weep slot	2	Sill face
1/2" by 3/16" Weep slot	4	Sill hollow

Comments: The weight of the sample was 122 lbs. The client did not supply drawings on the Series/Model 3500, single hung window. The window was disassembled, and the components will be retained by Architectural Testing for four years. Photographs of the test specimen are included in Appendix C.



Test Results: The STC (Sound Transmission Class) rating was calculated in accordance with ASTM E 413. The OITC (Outdoor-Indoor Transmission Class) was calculated in accordance with ASTM E 1332. A summary of the sound transmission loss test results on the Series/Model 3500, single hung window is listed below.

Summary of Test Results			
Data File No.	Glazing (Nominal Dimensions)	STC	OITC

A4978.01



Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	11/18/10	N/A	Original Report Issue



A4978.01-113-11

Appendix A



Appendix B
Complete Test Results

SOUND TRANSMISSION LOSS
ASTM E 90

ATI No.	A4978.01	Date
Client	MI Windows and Doors, Inc.	
Specimen		
Specimen Area	1.80 Square Meters	
Filler Are		





Appendix C

Photographs

Receive Room View of Installed Specimen

Source Room View of Installed Specimen