



# WESTERN ELECTRO - ACOUSTIC LABORATORY

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TESTING • CALIBRATION • RESEARCH

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## SOUND TRANSMISSION LOSS TEST REPORT NO. TL13-520

CLIENT: **MI Windows & Doors**  
7555 E State Route 69  
Prescott, AZ 86314

Page 1 of 2  
17 October 2013

TEST DATE: 14 August 2013

### INTRODUCTION

The methods and procedures used for each test conform to the provisions and requirements of ASTM E 90-09, *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions* and ASTM E2235-04<sup>e1</sup>, *Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods*. Copies of the test standard are available at [www.astm.org](http://www.astm.org). The test chamber source and receiving room volumes are 204 and 148.4 cubic meters respectively. Western Electro-Acoustic Laboratory is accredited by the United States Department of Commerce, National Institute of Standards and Technology under the National Voluntary Accreditation Program (NVLAP) Lab Code 100256-0 for this test procedure. This test report relates only to the item(s) tested. This report must not be used to claim product certification, approval, or endorsement by WEAL, NVLAP, NIST or any agency of the federal government.

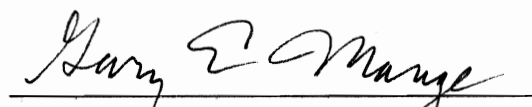
### DESCRIPTION OF TEST SPECIMEN

The test specimen was a MI Windows 5800 Polyvinyl Chloride (PVC) Vinyl Horizontal sliding window assembly. The specimen consisted of a fixed panel and an operable panel. The specimen was installed by fastening the mounting fin around the entire perimeter to the wood edge of the test chamber opening. The assembly was sealed into the test chamber opening with latex caulking under the mounting fin and a heavy duct seal putty around the entire perimeter on the receiving room side. The glazing consisted of 19 mm (3/4 inch) dual glazed units which were 6 mm (1/4 inch) laminated exterior glass, 9.7 mm (3/8 inch) air space with a Dura Lite spacer, and 3 mm (1/8 inch) double strength interior glass. According to the manufacturer, the laminated glass was 2.7|030PVB|2.7 utilizing a Saflex® Q Series acoustic interlayer. The fixed panel was glazed into the main frame and the operable panel was glazed into its individual frame using glazing tape and a vinyl snap in bead. The weather stripping used on the operable panel was 210 high 187 back (.210 in. x .187 in.) fin seal on the entire exterior perimeter. The weather stripping used on the frame was a 210 high 187 back fin seal on the interior head and sill. The net outside frame dimensions of the window assembly were 1.82 m (71-1/2 inches) wide by 1.21 m (47-1/2 inches) high by 69.8 mm (2-3/4 inches) deep. The overall weight of the assembly was 51.3 kg. (113 lbs.) for a calculated surface density of 23.4 kg/m<sup>2</sup> (4.79 lbs./ft<sup>2</sup>). The weep holes were normal without covers.


### RESULTS OF THE MEASUREMENTS

One-third octave band sound transmission loss values are plotted and tabulated on the attached sheet. ASTM minimum volume requirements are met at 80 Hz and above. The Outdoor-Indoor Transmission Class rating determined in accordance with ASTM E 1332-10a was OITC-29. The Sound Transmission Class rating determined in accordance with ASTM E 413-10 was STC-34.

Approved:

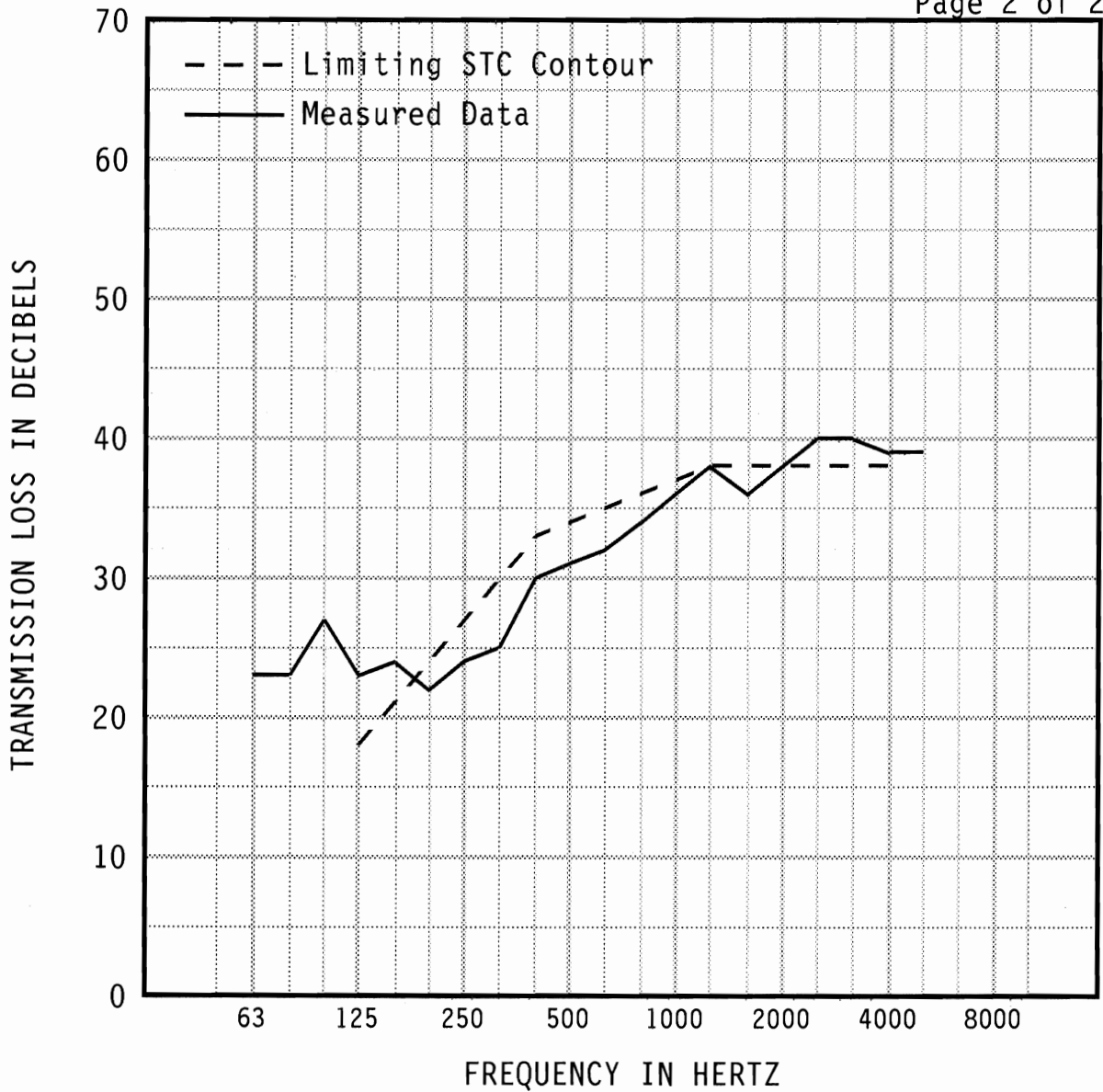
  
Gary E. Marge  
Laboratory Director

Respectfully submitted,  
Western Electro-Acoustic Laboratory

  
Raul Martinez  
Acoustical Test Technician

# WESTERN ELECTRO-ACOUSTIC LABORATORY

Report No. TL13-520



1/3 OCT BND CNTR	FREQ	63	80	100	125	160	200	250	315	400	500
TL in dB		*23	23	27	23	24	22	24	25	30	31
95% Confidence in dB deficiencies		1.42	1.92	2.07	1.47	0.89	0.76 (2)	0.80 (3)	0.52 (5)	0.36 (3)	0.38 (3)
1/3 OCT BND CNTR	FREQ	630	800	1000	1250	1600	2000	2500	3150	4000	5000
TL in dB		32	34	36	38	36	38	40	40	39	39
95% Confidence in dB deficiencies		0.29 (3)	0.44 (2)	0.38 (1)	0.39 (0)	0.36 (2)	0.56 (0)	0.55	0.31	0.32	0.50

EWR	OITC	* Minimum estimate of transmission loss. Measurement limited by filler wall. Actual TL will be equal to or greater than value reported.	Specimen Area: 23.59 sq.ft.	STC
35	29		Temperature: 74.5 deg. F	34
			Relative Humidity: 40 %	(24)
			Test Date: 14 August 2013	

Report must be distributed in its entirety except with written authorization from Western Electro-Acoustic Laboratory

