



WESTERN ELECTRO - ACOUSTIC LABORATORY

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TESTING • CALIBRATION • RESEARCH

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SOUND TRANSMISSION LOSS TEST REPORT NO. TL13-521

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

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16 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^{e1}, *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. 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 3 mm (1/8 inch) double strength exterior glass, 11.6 mm (15/32 inch) air space with a Dura Lite spacer, and 5 mm (3/16 inch) monolithic interior glass. 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 45.8 kg. (101 lbs.) for a calculated surface density of 20.9 kg/m² (4.28 lbs./ft²). 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-27. The Sound Transmission Class rating determined in accordance with ASTM E 413-10 was STC-33.

Approved:

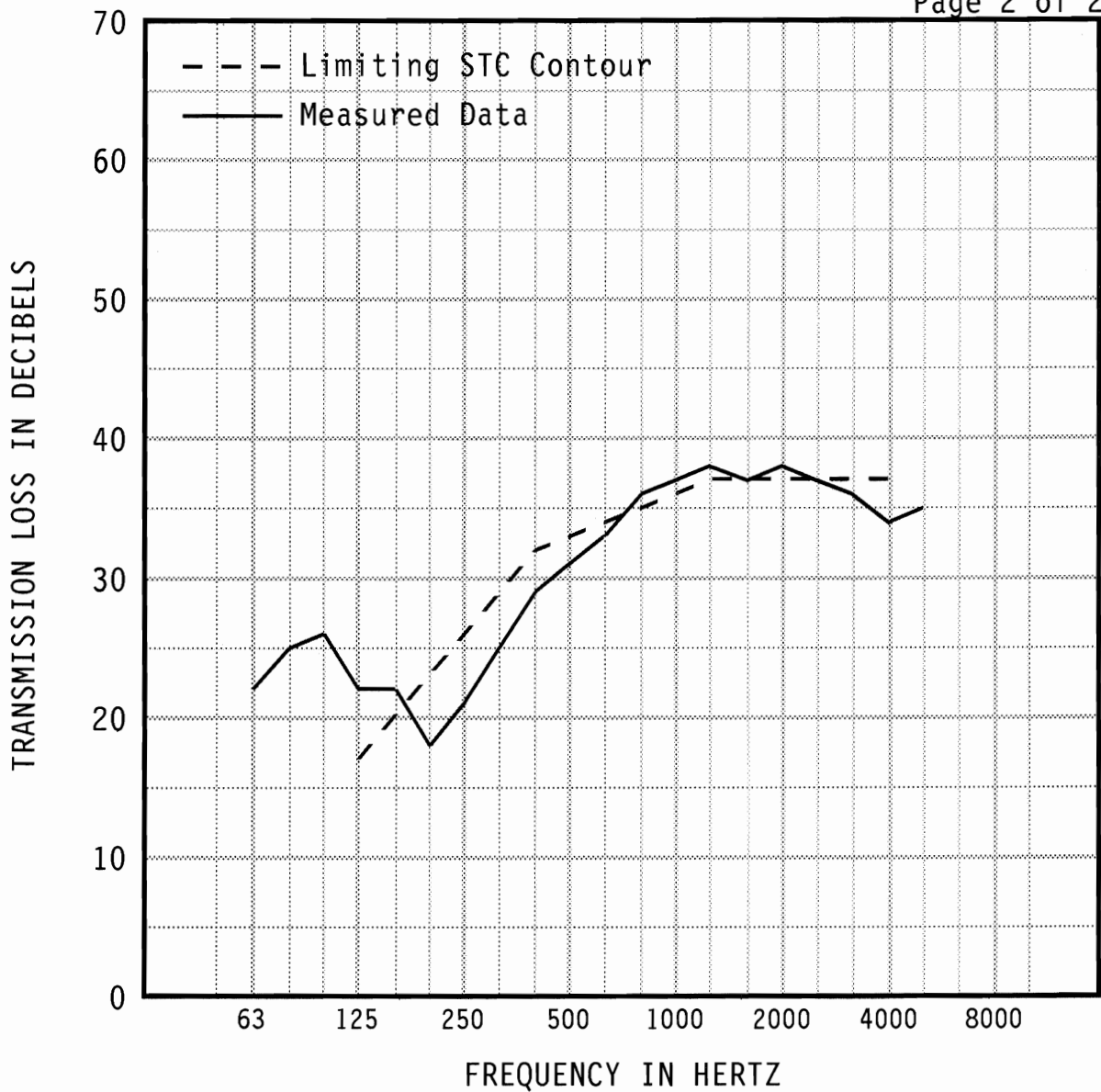
Respectfully submitted,
Western Electro-Acoustic Laboratory

Gary E. Mange
Laboratory Director

Raul Martinez
Acoustical Test Technician

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1/3 OCT BND CNTR	FREQ	63	80	100	125	160	200	250	315	400	500
TL in dB		22	25	26	22	22	18	21	25	29	31
95% Confidence in dB deficiencies		1.42	1.92	2.07	1.47	0.89	0.76 (5)	0.80 (5)	0.52 (4)	0.36 (3)	0.38 (2)
1/3 OCT BND CNTR	FREQ	630	800	1000	1250	1600	2000	2500	3150	4000	5000
TL in dB		33	36	37	38	37	38	37	36	34	35
95% Confidence in dB deficiencies		0.29 (1)	0.44	0.38	0.39	0.36 (0)	0.56	0.55 (0)	0.31 (1)	0.32 (3)	0.50

EWR	OITC	Specimen Area: 23.59 sq.ft. Temperature: 76.1 deg. F Relative Humidity: 41 % Test Date: 14 August 2013	STC
34	27		33
			(24)

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