



SOUND TRANSMISSION LOSS TEST REPORT NO. TL14-125

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

Page 1 of 2
28 March 2014

TEST DATE: 28 January 2014

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 E2235-04e1, 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 EC180 Polyvinyl Chloride (PVC) Vinyl Double Hung window assembly. (According to the manufacturer, this product is also produced as a Series BB180, and HM180.) The specimen consisted of two operable panels. 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 nominal 19 mm (3/4 inch) dual glazed units which were 3 mm (1/8 inch) double strength exterior glass, 13 mm (1/2 inch) air space with a Duralite spacer, and 3 mm (1/8 inch) double strength interior glass. The units were glazed into their individual frames using glazing tape and a vinyl snap in bead. The weather stripping used on the frame was 270 high 187 back (.270 in. x .187 in.) fin seal at the interior perimeter of both tracks. The weather stripping used on the exterior panel was one row of 270 high 187 back fin seal on the exterior of the head and sides. In addition, a row of 270 high 187 back fin seal was used on the interior and exterior edges on the head and sides, parallel to the panel. One row of 450 high 187 back fin seal was used at the meeting rail. The weather stripping used on the interior panel was 270 high 187 back fin seal around the entire exterior perimeter. In addition, a row of 270 high 187 back fin seal was used on the interior and exterior edges on the sill and sides, parallel to the panel. One row of foam filled vinyl bulb seal was used at the meeting rail. The net outside frame dimensions of the window assembly were 1.21 m (47-1/2 inches) wide by 1.50 m (59 inches) high by 82.6 mm (3-1/4 inches) deep. The overall weight of the assembly was 38.1 kg. (84 lbs.) for a calculated surface density of 23.5 kg/m2 (4.81 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-24. The Sound Transmission Class rating determined in accordance with ASTM E 413-10 was STC-29.

Approved:

Gary E. Mange
Laboratory Director

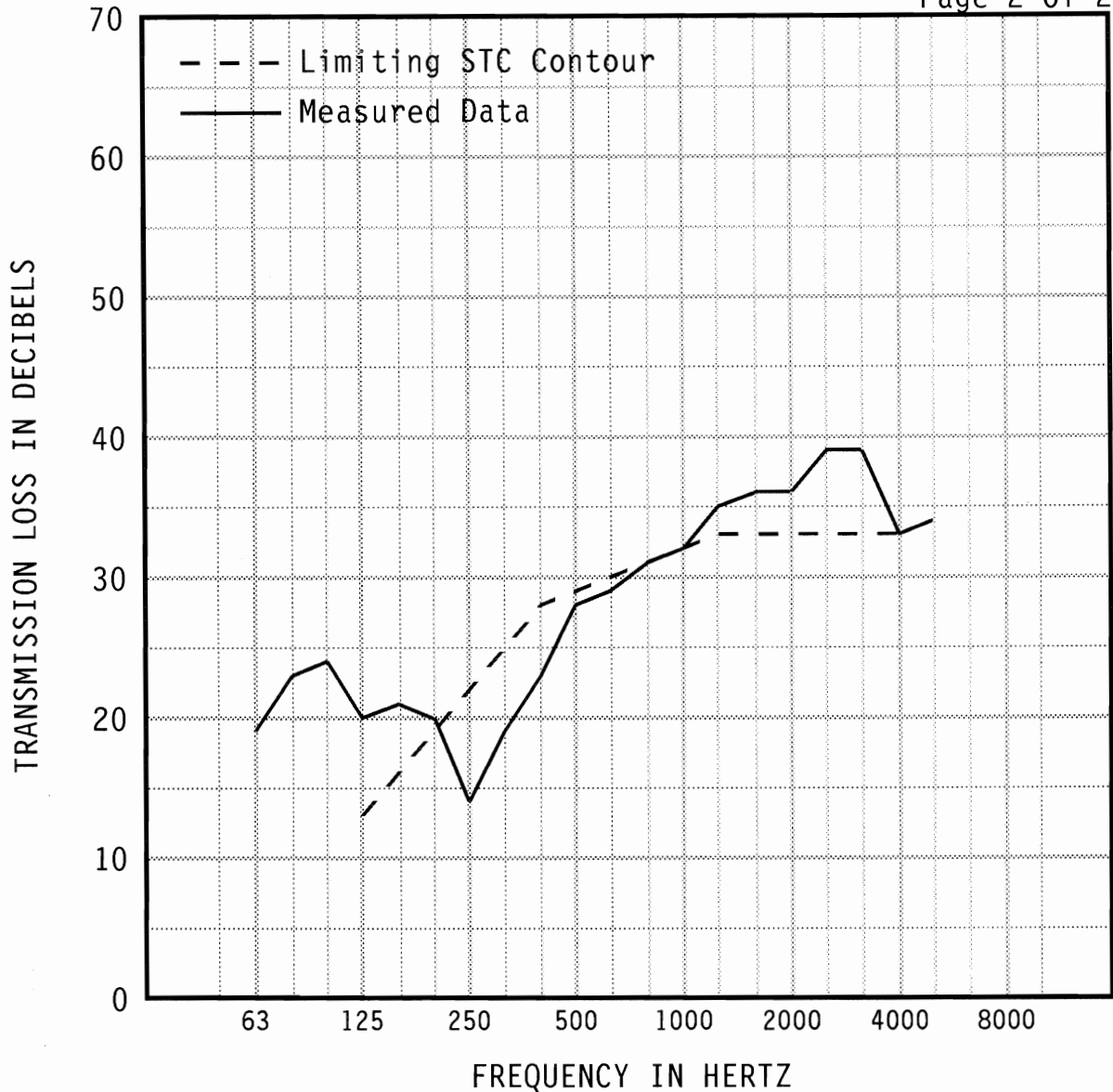
Respectfully submitted,
Western Electro-Acoustic Laboratory

Raul Martinez
Acoustical Test Technician



# WESTERN ELECTRO-ACOUSTIC LABORATORY

Report No. TL14-125



1/3 OCT BND CNTR	FREQ	63	80	100	125	160	200	250	315	400	500
TL in dB		19	23	24	20	21	20	14	19	23	28
95% Confidence in dB deficiencies		1.42	1.92	2.07	1.47	0.89	0.76	0.80 (8)	0.52 (6)	0.36 (5)	0.38 (1)
1/3 OCT BND CNTR	FREQ	630	800	1000	1250	1600	2000	2500	3150	4000	5000
TL in dB		29	31	32	35	36	36	39	39	33	34
95% Confidence in dB deficiencies		0.29 (1)	0.44 (0)	0.38 (0)	0.39	0.36	0.56	0.55	0.31	0.32 (0)	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: 19.46 sq.ft. Temperature: 70.7 deg. F Relative Humidity: 33 % Test Date: 28 January 2014	STC
30	24		29
			(21)

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