



WESTERN ELECTRO - ACOUSTIC LABORATORY

A division of Veneklasen Associates, Inc.

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SOUND TRANSMISSION LOSS TEST REPORT NO. TL10-577

CLIENT: **U.S. Aluminum**
3663 Bandini Blvd.
Vernon, CA 90058

Page 1 of 2
21 October 2010

TEST DATE: 24 August 2010

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 U.S. Aluminum FT-601 foam filled aluminum store front system. The 2 x 6 aluminum frame members were filled with closed cell foam inserts. The specimen consisted of a single module. The specimen was installed by sliding it completely into the test chamber opening and capturing it with screws through the frame. The frame was sealed into the test chamber opening with backer rod and silicone caulking around the entire perimeter on both sides. The glazing consisted of a 26.7 mm (1-1/16 inch) dual glazed unit which was 5.4 mm (7/32 inch) monolithic glass, 13.6 mm (17/32 inch) air space, and 7.7 mm (5/16 inch) laminated glass. The laminated glass utilized a 1.52 mm (.060 inch) interlayer. The unit was glazed into the frame with a top load EPDM gasket on both sides. The net outside frame dimensions of the window assembly were 1.13 m (44.5 inches) wide by 2.34 m (92 inches) high by 152 mm (6 inches) deep. The overall weight of the assembly was 96.2 kg (212 lbs.) for a calculated surface density of 36.4 kg/m² (7.46 lbs./ft²). There were two open weep slots in the sub frame at the bottom of the assembly.

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 1332-90(2003) was OITC-31. The Sound Transmission Class rating determined in accordance with ASTM E 413-04 was STC-39.

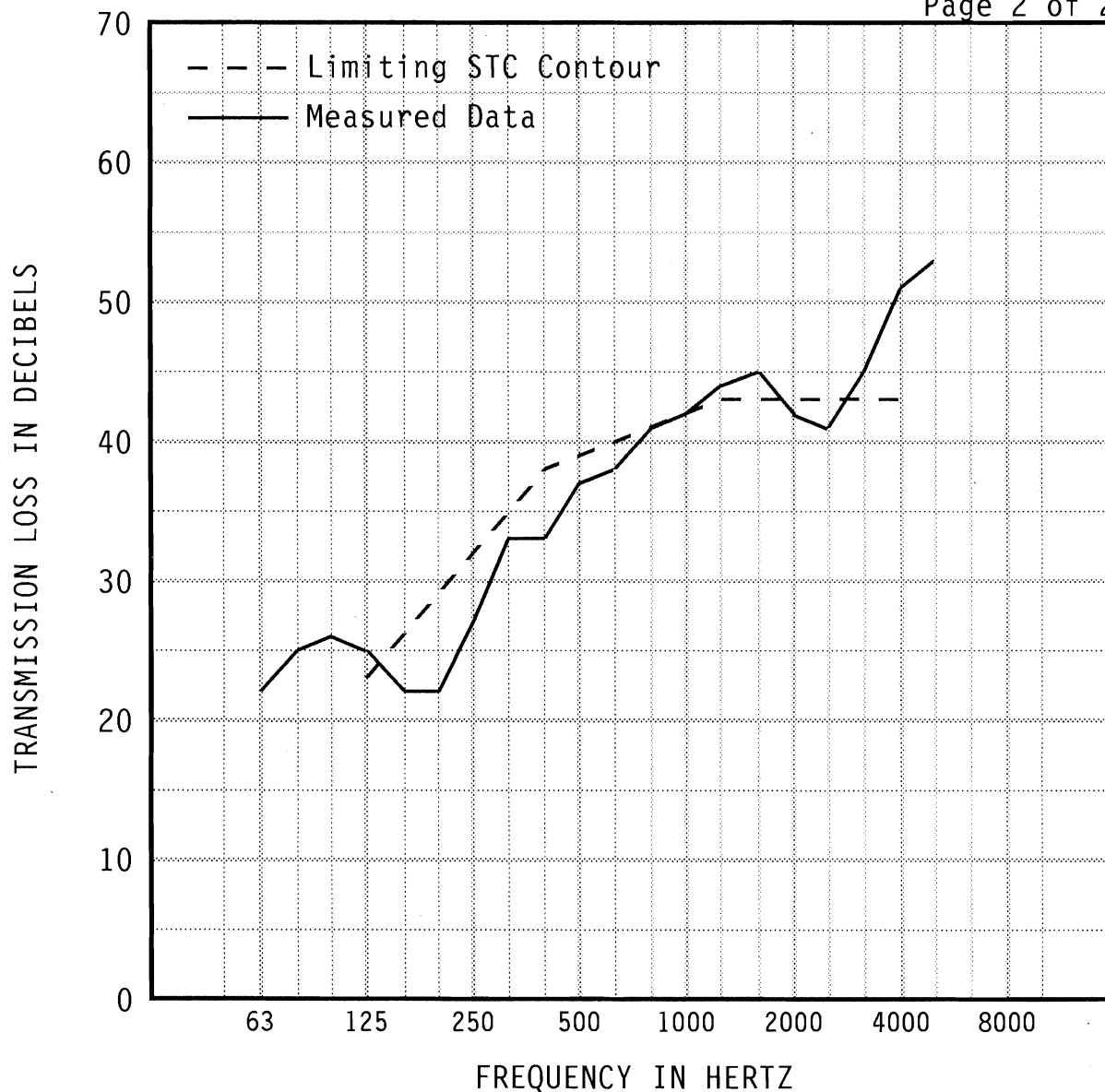
Respectfully submitted,
Western Electro-Acoustic Laboratory


Gary E. Mange
Laboratory Director

WESTERN ELECTRO-ACOUSTIC LABORATORY

Report No. TL10-577

Page 2 of 2



1/3 OCT BND CNTR	FREQ	63	80	100	125	160	200	250	315	400	500
TL in dB		22	25	26	25	22	22	27	33	33	37
95% Confidence in dB deficiencies		1.42	1.92	2.07	1.47	0.89 (4)	0.76 (7)	0.80 (5)	0.52 (2)	0.36 (5)	0.38 (2)
1/3 OCT BND CNTR	FREQ	630	800	1000	1250	1600	2000	2500	3150	4000	5000
TL in dB		38	41	42	44	45	42	41	45	51	53
95% Confidence in dB deficiencies		0.29 (2)	0.44 (0)	0.38 (0)	0.39	0.36	0.56 (1)	0.55 (2)	0.31	0.32	0.50
EWR	OITC	Specimen Area: 28.43 sq.ft. Temperature: 74.3 deg. F Relative Humidity: 35 % Test Date: 24 August 2010									STC 39 (30)
38	31										

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