



# WESTERN ELECTRO - ACOUSTIC LABORATORY

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## SOUND TRANSMISSION LOSS TEST REPORT NO. TL09-122

CLIENT: **AMSCO Windows**  
1880 South 1045 West  
P.O. Box 25368  
Salt Lake City, Utah 84125  
TEST DATE: 20 January 2009

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22 January 2009

### INTRODUCTION

The methods and procedures used for this test conform to the provisions and requirements of ASTM E 90-04, *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions*. 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 NVLAP (National Voluntary Laboratory Accreditation Program) Lab Code 100256-0 for this test procedure. NVLAP is part of the United States Department of Commerce, National Institute of Standards and Technology (NIST). This test report relates only to the item(s) tested. Any advertising that utilizes this test report or test data must not imply product certification or endorsement by WEAL, NVLAP, NIST or the U.S. Government.

### DESCRIPTION OF TEST SPECIMEN

The test specimen was an AMSCO Serenity Series vinyl casement double sash assembly. The specimen was installed by sliding it completely into the test chamber opening and capturing it with screws on both sides. The specimen was sealed into the test chamber opening with a heavy duct seal putty around the entire perimeter on both sides. The primary glazing consisted of a 7/8 inch (22.2 mm) thick dual glazed unit which was 1/8 inch (3.2 mm) double strength glass, 5/8 inch (15.9 mm) air space, and 1/8 inch (3.2 mm) double strength glass. The secondary interior sound panel glazing consisted of 1/4 inch (6.4 mm) monolithic glass. The primary unit was glazed into the sash frame and the secondary lite was glazed into its individual frame with glazing tape and a vinyl snap in bead. The secondary panel was sealed into the sash frame with 260 high 187 back (.260 inch x .187 inch) fin seal around the entire perimeter on the sash panel and was held in place with a vinyl snap in bead. The nominal spacing between the primary and secondary windows was 2-1/4 inches (57 mm) glass to glass. The weather stripping used for the sash panel was 260 high 187 back fin seal around the entire perimeter at the interior and at an intermediate location and QLon leaf seal around the entire exterior perimeter. The sash was held in the closed position with a multi-point latching system. The net outside frame dimensions of the window assembly were 35-1/2 inches (.902 m) wide by 59-1/2 inches (1.51 m) high by 5-5/16 inches (135 mm) deep. The overall weight of the assembly was 107 lbs. (48.5 kg) for a calculated surface density of 7.29 lbs./ft<sup>2</sup> (35.6 kg/m<sup>2</sup>). The operable portion of the assembly was opened and closed five times prior to the test.


### 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 Sound Transmission Class rating determined in accordance with ASTM E 413-04 was STC-42.

Approved:

  
Gary E. Mange  
Laboratory Director

Respectfully submitted,  
Western Electro-Acoustic Laboratory

  
Raul Martinez  
Acoustical Test Technician

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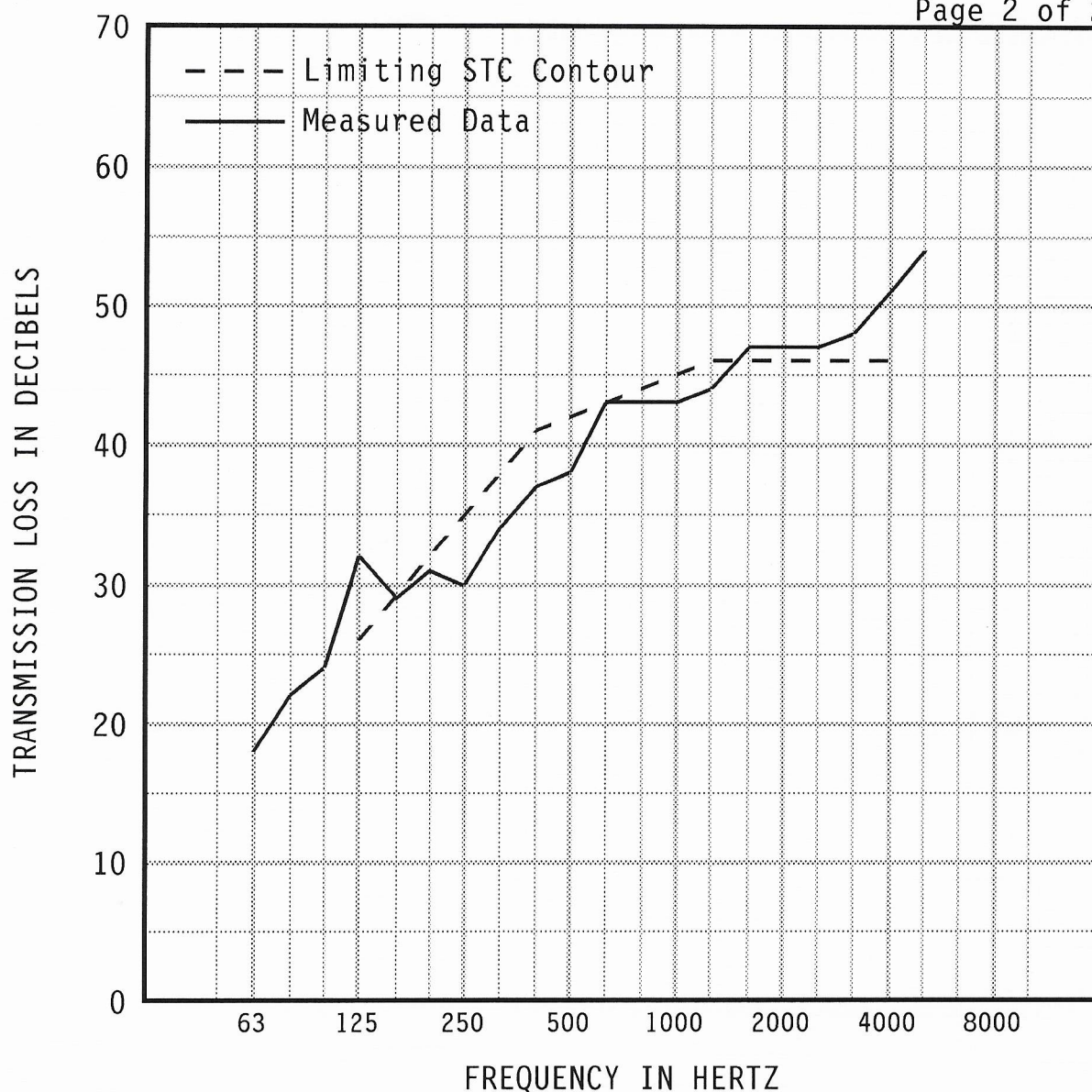


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1/3 OCT BND CNTR FREQ	63	80	100	125	160	200	250	315	400	500
TL in dB	18	22	24	32	29	31	30	34	37	38
95% Confidence in dB deficiencies	1.42	1.92	2.07	1.47	0.89 (0)	0.76 (1)	0.80 (5)	0.52 (4)	0.36 (4)	0.38 (4)
1/3 OCT BND CNTR FREQ	630	800	1000	1250	1600	2000	2500	3150	4000	5000
TL in dB	43	43	43	44	47	47	47	48	51	54
95% Confidence in dB deficiencies	0.29 (0)	0.44 (1)	0.38 (2)	0.39 (2)	0.36	0.56	0.55	0.31	0.32	0.50

EWR	OITC
43	35

Specimen Area: 14.67 sq.ft.  
 Temperature: 71.1 deg. F  
 Relative Humidity: 33 %  
 Test Date: 20 January 2009

STC  
 42  
 (23)

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