SOUND TRANSMISSION LOSS TEST REPORT NO. TL08-265

CLIENT: Soundproof Windows
4673 Aircenter Circle
Reno, NV 89502
TEST DATE: 16 April 2008

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. 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 consisted of an exterior vinyl horizontal sliding window and a Soundproof Window interior window assembly. The exterior window was a vinyl Milgard® Style Line™ Series horizontal slider. The exterior window consisted of an operable panel and a fixed panel and was installed by screwing the nailing fin around the entire perimeter to the wood edge of the test chamber opening. The window was sealed into the test chamber opening with a heavy duct seal putty around the entire perimeter on both sides. The glazing consisted of 3/4 inch (19.1 mm) dual glazed units which were 1/8 inch (3.2 mm) double strength glass, 1/2 inch (12.7 mm) air space, and 1/8 inch (3.2 mm) double strength glass. The fixed unit was glazed directly into the main frame and the operable unit was glazed into its individual frame using glazing tape and a vinyl snap in bead. The weather stripping used on the exterior window was 240 high 187 back (.240 in x .187 in) fin seal around the entire exterior perimeter of the operable panel. The two weep holes on the exterior window were normal with covers. The interior window assembly was manufactured by Soundproof Windows. The interior window consisted of two operable panels and was installed by screwing the frame to the wood around the perimeter of the test chamber opening. The interior window was sealed into the test chamber opening with a heavy duct seal putty around the entire perimeter on the interior side. The glazing consisted of 7/32 inch (5.6 mm) laminated glass with .030 PVB inner layer. Both lites were marine glazed with a wrap around gasket. The nominal spacing between the windows at the fixed panel was 3-3/4 inches (95 mm) and at the operable panel was 3 inches (76 mm) glass to glass. The weather stripping used on both panels of the interior window was a Qlon bulb seal at the interlock and a custom designed 3-finger vinyl seal on the frame at the sides. The sill and head were frame sealed using a custom tension sealed glide track. The net outside frame dimensions of the window assemblies were 71-1/2 inches (1.82 m) wide by 47-1/2 inches (1.21 m) high by 8 inches (203 mm) deep. The overall weight of the entire assembly was 120 lbs. (54.4 kg) for a calculated surface density of 5.09 lbs./ft² (24.8 kg/m²). All operable portions of the assembly were opened and closed five times immediately 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-48.

Respectfully submitted,
Western Electro-Acoustic Laboratory

Approved:

Gary E. Mange
Laboratory Director

Raul Martinez
Acoustical Test Technician
FREQUENCY IN HERTZ

TRANSMISSION LOSS IN DECIBELS

1/3 OCT BND CNTR FREQ
TL in dB
95% Confidence in dB
deficiencies

63 80 100 125 160 200 250 315 400 500
19 25 28 32 33 34 36 36 42 45
1.42 1.92 2.07 1.47 0.89 0.76 0.80 0.52 0.36 0.38
(0) (0) (0) (0) (0) (0) (0) (0) (0) (0)

EWR OITC
47 38

Specimen Area: 23.58 sq.ft.
Temperature: 71.6 deg. F
Relative Humidity: 31 %
Test Date: 16 April 2008

STC 48
(27)

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