



# WESTERN ELECTRO - ACOUSTIC LABORATORY, INC.

RESEARCH • CONSULTING • CALIBRATION • INSTRUMENTATION

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25 April 1996

## REPORT SOUND TRANSMISSION LOSS TEST NO. TL96-168

CLIENT: FLEETWOOD ALUMINUM PRODUCTS, INC.  
TEST DATE: 27 March 1996

### INTRODUCTION

The methods and procedures used for this test conform to the provisions and requirements of ASTM Procedure E90-90, *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions*. Details of the procedure will be furnished upon request. The test chamber source and receiving room volume are 79.9 and 78 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) for this test procedure. This test report relates only to the item(s) tested. Any advertising which 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 a Fleetwood Aspen 530-T aluminum horizontal sliding window assembly. The specimen was sealed into the test chamber opening with a heavy duct seal putty around the entire perimeter on both sides. The glazing consisted of 1 inch (25.4 mm) dual glazed units which were 7/32 inch (5.6 mm) laminated glass, 5/8 inch (15.9 mm) air space, and 3 mm (1/8 inch) double strength glass. Both units were glazed into individual frames using vinyl wrap around gaskets. The weather stripping used on the fixed panel was 230 high 270 back fin seal on both sides of the top and bottom rails and jamb stile. 230 high 270 back fin seal was used at the interlock. The operable panel used 230 high 270 back fin seal on both sides of the top and bottom rails and jamb stile. 500 high 270 back and 230 high 270 back fin seal were used at the interlock. The net outside frame dimensions of the window assembly were 71-1/2 inches (1.82 m) wide by 47-1/2 inches (1.21 m) high. The overall weight of the assembly was 132.5 lbs. (60.1 kg) for a calculated surface density of 5.62 lbs./ft<sup>2</sup> (27.4 kg/m<sup>2</sup>). The two weep holes were open and covered with trap door baffles. The operable portion of the assembly was opened and closed five times immediately prior to the test.

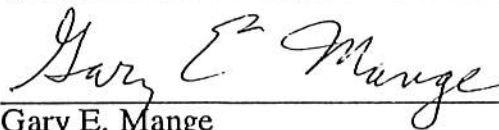
### RESULTS OF THE MEASUREMENTS

One-third octave band sound transmission loss values are tabulated on the attached sheet. ASTM minimum volume requirements are met at 125 Hz and above. The Sound Transmission Class rating determined in accordance with ASTM E-413 was STC-33.

Approved:

Respectfully submitted,  
Western Electro-Acoustic Laboratory, Inc.

  
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Jose C. Ortega  

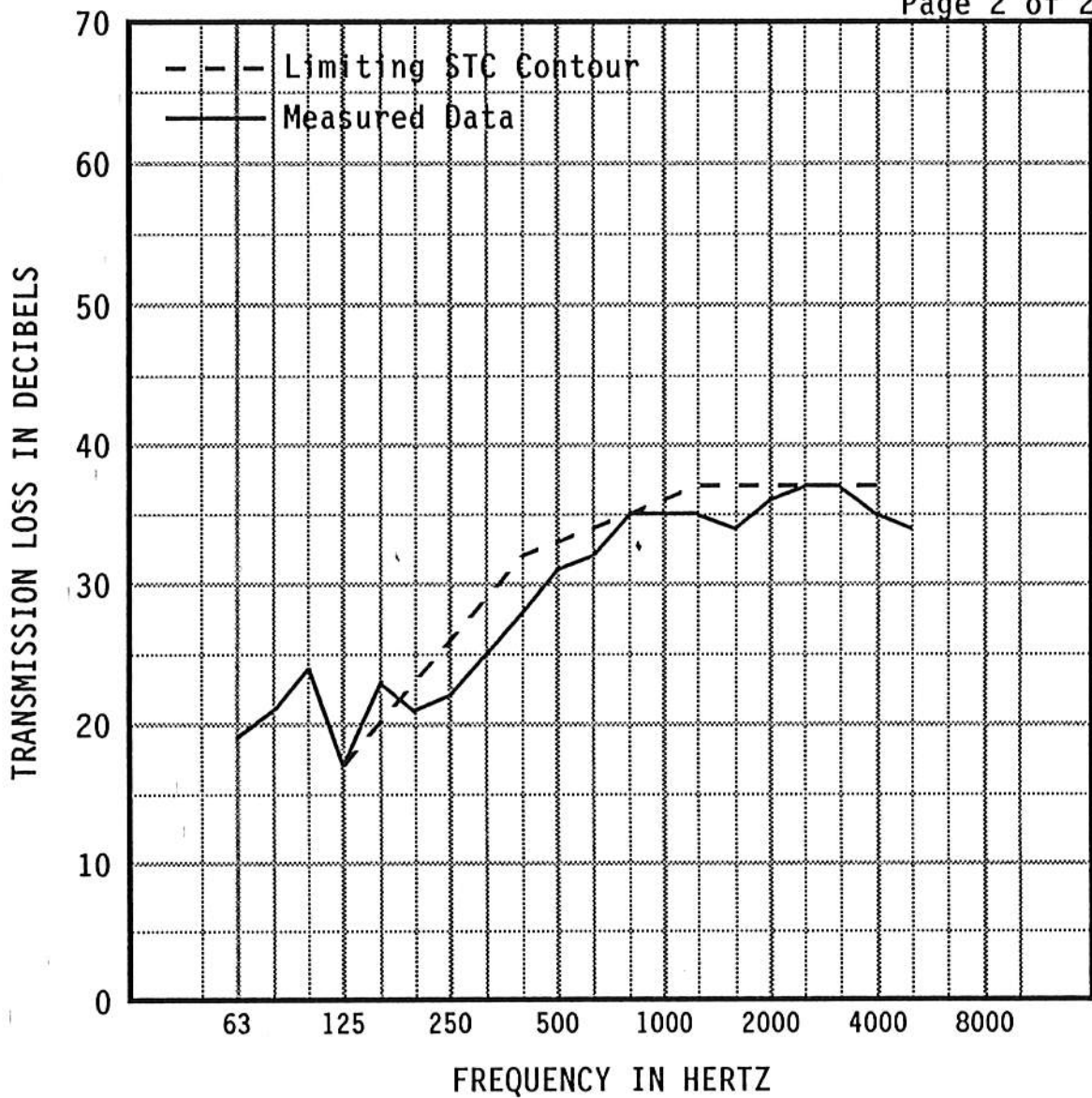

  
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Gary E. Mange

ACCREDITED BY THE NATIONAL BUREAU OF STANDARDS, NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.

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1/3 OCT BND CNTR	FREQ	63	80	100	125	160	200	250	315	400	500
TL in dB		19	21	24	17	23	21	22	25	28	31
95% Confidence in dB deficiencies		2.97	1.73	2.83	2.40 (0)	1.87	0.84 (2)	0.92 (4)	0.92 (4)	0.89 (4)	0.66 (2)
1/3 OCT BND CNTR	FREQ	630	800	1000	1250	1600	2000	2500	3150	4000	5000
TL in dB		32	35	35	35	34	36	37	37	35	34
95% Confidence in dB deficiencies		0.36 (2)	0.44 (0)	0.48 (1)	0.46 (2)	0.39 (3)	0.33 (1)	0.33 (0)	0.39 (0)	0.34 (2)	0.44
EWR	OITC	Specimen Area: 23.585 sq.ft. Temperature: 70 deg. F Relative Humidity: 54 % Test Date: 27 March 1996									STC
34	27										33 (27)