WESTERN ELECTRO - ACOUSTIC LABORATORY, INC.

RESEARCH • CONSULTING • CALIBRATION • INSTRUMENTATION

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 4 March 1992

REPORT
SOUND TRANSMISSION LOSS TEST NO. TL91-125 revision 2

CLIENT: FLEETWOOD ALUMINUM PRODUCTS, INC.
TEST DATE: 12 March 1991

INTRODUCTION

The methods and procedures used for this test conform to the provisions and requirements of ASTM Procedure E90-87, 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 Bureau of Standards under the National Voluntary Accreditation Program (NVLAP) for this test procedure.

DESCRIPTION OF TEST SPECIMEN

The test specimen was an operable double window assembly consisting of two Fleetwood Westwood 250 aluminum horizontal sliding windows. The glazing in the exterior window consisted of 1/4 inch laminated glass which was 1/8 inch glass, .045 inch laminate, and 1/8 inch glass. The glazing in the interior window consisted of 1/4 inch laminated glass which was 1/8 inch glass, .030 inch laminate, and 1/8 inch glass. The nominal spacing between the glass was 3-7/8 inches. All panels were glazed into individual frames using vinyl wrap around gaskets. The weather stripping on the two windows was identical. The fixed panels used 2 finger vinyl on the frame sills and heads, 200 high 270 back (.215 in. x .270 in.) fin seal on the panel jamb stiles and 200 high 270 back pile seal at the interlocks. The fixed panels were held in place by screws at the top and bottom of the jamb stiles. The operable panels used 200 high 270 back fin seal on one side of the frame sills and heads and 240 high 270 back pile seal on the other side of the panel top and bottom rails. In addition, 180 high 270 back fin seal was used on one side of the frame jambs and on the other side of the panel jamb stiles. The operable panel interlocks had 130 high 270 back pile seal. The net outside frame dimensions of the window assembly were 71-1/2 inches wide by 47-1/2 inches high. The overall weight of the exterior window assembly was 88 lbs and the overall weight of the interior window assembly was 97 lbs. The four weep holes were baffled with open cell foam and trap door covers. All operable portions of the assembly were opened and closed five times prior to the test.

RESULTS OF THE MEASUREMENTS

The sound transmission loss values at 17 one-third octave bands are tabulated on the attached sheet. The Sound Transmission Class rating determined in accordance with ASTM E-413 was STC-47.

Respectively submitted,
Western Electro-Acoustic Laboratory, Inc.

Approved:

Jose C. Ortega

Gary E. Mange

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

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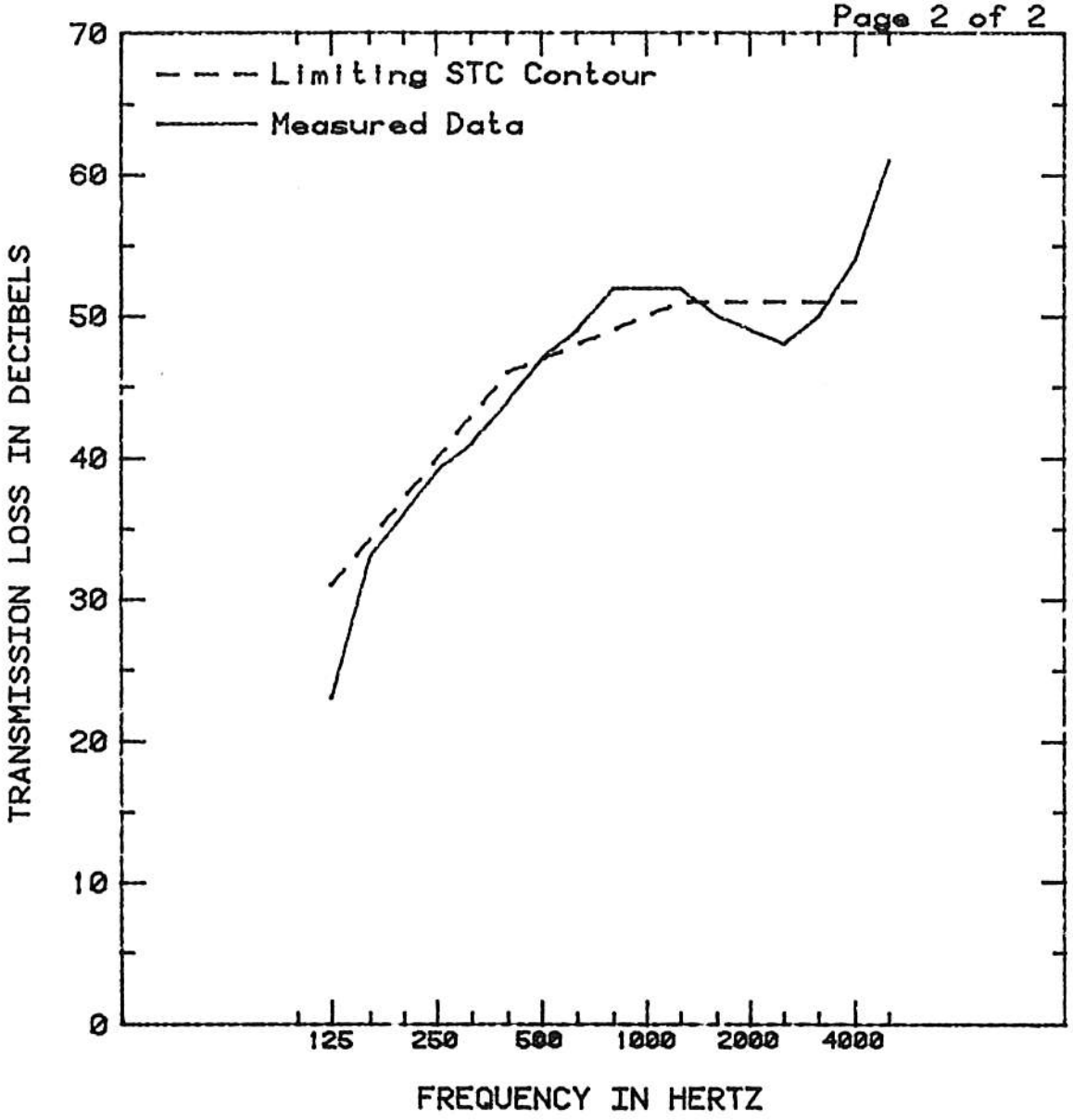

1/3 OCT BND CNTR FREQ	125	160	200	250	315	400	500	630	800
TL in dB	23	33	36	39	41	44	47	49	52
95% Confidence in dB	2.84	1.34	1.52	1.19	0.99	0.78	0.60	0.61	0.58
deficiencies	(8)	(1)	(1)	(1)	(2)	(2)	(0)		
1/3 OCT BND CNTR FREQ	1000	1250	1600	2000	2500	3150	4000	5000	STC
TL in dB	52	52	50	49	48	50	54	61	47
95% Confidence in dB	0.65	0.39	0.38	0.46	0.33	0.39	0.47	0.69	
deficiencies			(1)	(2)	(3)	(1)			(22)

Specimen Area: 23.585 sq.ft.
Temperature: 72 deg. F
Relative Humidity: 42 %
Test Date: 12 March 1991

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