



WESTERN ELECTRO - ACOUSTIC LABORATORY

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SOUND TRANSMISSION LOSS TEST REPORT NO. TL06-297

CLIENT: **CEMCO**
263 N Covina Lane
City of Industry, CA 91744
TEST DATE: 15 August 2006

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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 was a wall assembly constructed from metal studs, Sure-board, and type X gypsum board. The metal studs were Cemco 16 gauge 6 inch (152 mm) by 1-1/4 inch (31.8 mm) and were spaced horizontally at 16 inches (406 mm) O.C. The sill and head tracks were Cemco 16 gauge 6 inch (152 mm) by 1-1/4 inch (31.8 mm). The sill and head track and edge studs were isolated from the test opening with 1/4 inch (6.4 mm) neoprene pads. On the source room side, Sure-board 200W was screwed to the studs at 6 inches (152 mm) O.C. at the perimeter and 12 inches (305 mm) O.C. in the field. The Sure-board 200W consisted of 1/4 inch (6.4 mm) magnesium board laminated to a sheet of 22 gauge steel. A layer of 5/8 inch (15.9 mm) thick type X gypsum board was screwed to the Sure-board at 8 inches (203 mm) O.C. at the perimeter and 12 inches (305 mm) O.C. in the field. The joints and screw heads were covered with metal foil tape. The perimeter was sealed with a bead of caulking and metal foil tape. On the receiving room side, Cemco resilient channels, 25 gauge 1/2 inch (12.7 mm) by 2 inch (50.8 mm), were attached horizontally to the studs spaced at 24 inches (610 mm) O.C. A layer of 5/8 inch (15.9 mm) thick type X gypsum board was screwed to the resilient channels at 6 inches (152 mm) O.C. The joints and screw heads were covered with metal foil tape. The perimeter was sealed with a bead of caulking and metal foil tape. All wall board was oriented vertically and joints were offset. Nominal 6 inch (152 mm) thick Johns Manville fiberglass sound insulation batts were installed in the stud space. The overall dimensions of the wall assembly were 144 inches (3.66 m) wide by 96 inches (2.44 m) high by 8 inches (203 mm) thick. The overall weight of the assembly was estimated to be 667 lbs. (302 kg) for a calculated surface density of 6.95 lbs./ft² (33.9 kg/m²).

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-56.

Respectfully submitted,
Western Electro-Acoustic Laboratory

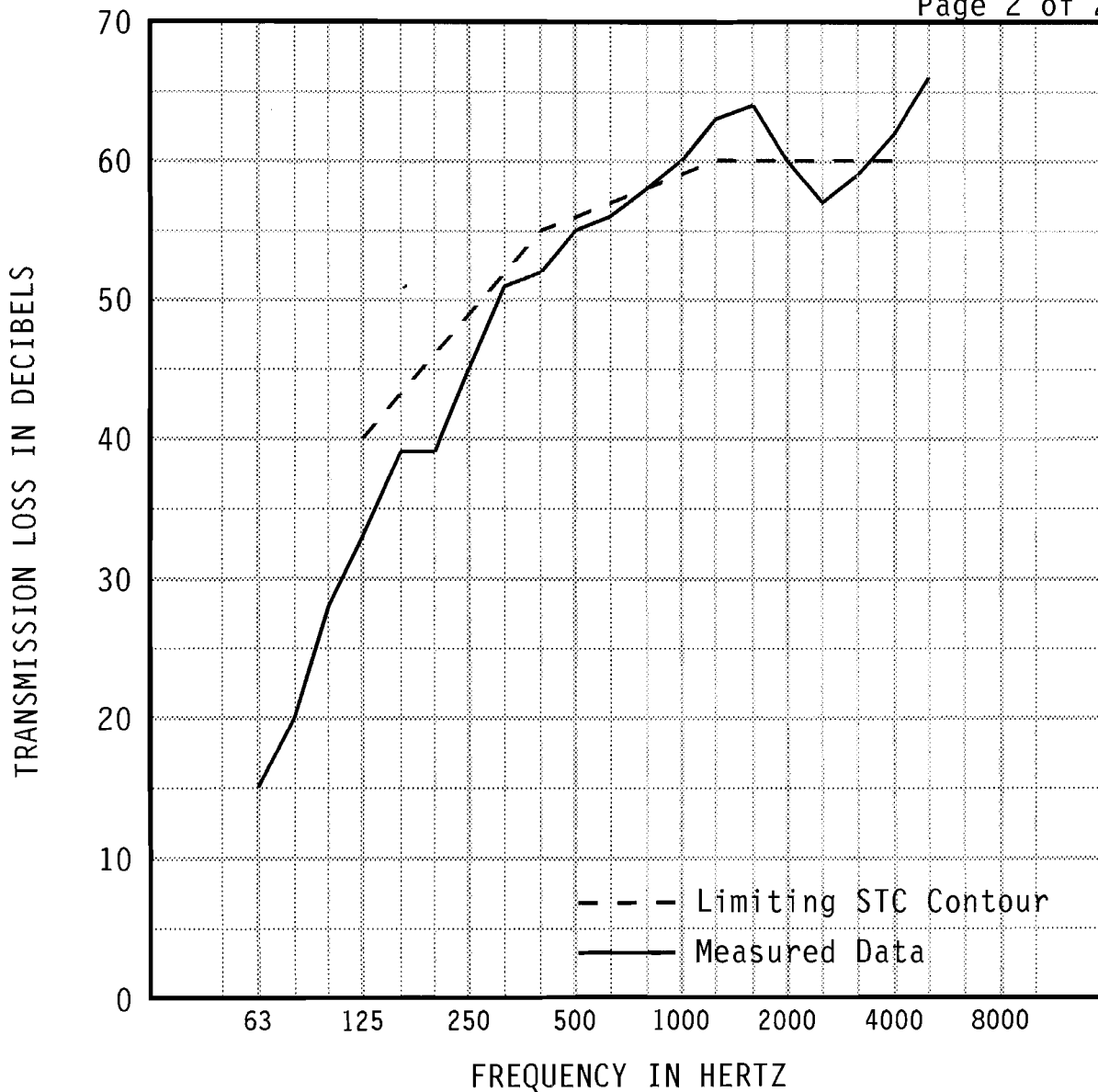


Gary E. Mange
Laboratory Manager



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1/3 OCT BND CNTR	FREQ	63	80	100	125	160	200	250	315	400	500
TL in dB		15	20	28	33	39	39	45	51	52	55
95% Confidence in dB deficiencies		1.42	1.92	2.07	1.47	0.89	0.76	0.80	0.52	0.36	0.38
					(7)	(4)	(7)	(4)	(1)	(3)	(1)
1/3 OCT BND CNTR	FREQ	630	800	1000	1250	1600	2000	2500	3150	4000	5000
TL in dB		56	58	60	63	64	60	57	59	62	66
95% Confidence in dB deficiencies		0.29	0.44	0.38	0.39	0.36	0.56	0.55	0.31	0.32	0.50
		(1)	(0)				(0)	(3)	(1)		

EWR	OITC	Specimen Area: 96 sq.ft. Temperature: 75.9 deg. F Relative Humidity: 46 % Test Date: 15 August 2006	STC
55	37		56 (32)

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