



# WESTERN ELECTRO - ACOUSTIC LABORATORY

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TESTING • CALIBRATION • RESEARCH

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## SOUND TRANSMISSION LOSS TEST REPORT NO. TL05-393

CLIENT: International Materials Corporation (Intermat)  
2045 Placentia Avenue  
Costa Mesa, CA 92627

Page 1 of 2  
18 January 2006

TEST DATE: 18 November 2005

### 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 a wall assembly constructed from steel studs, Intermat Series 200W Sure-Board, and 5/8 inch (15.9mm) thick type X drywall. The 1-5/8" x 3-1/2" (41.3 mm x 88.9mm) 20 gauge steel studs were spaced horizontally at 24 inches (610 mm) O.C. and had a single track at the sill and head. The perimeter studs and tracks were caulked and screwed directly to the test chamber opening. On the source room side, 1/8 inch (3.2 mm) thick Intermat Series 200W Sure-Board was screwed to the studs with 1-5/8" #8 self tapping screws at 8 inches (203 mm) O.C. at the perimeter and 12 inches (305 mm) O.C. in the field. The Sure-Board was oriented vertically. 5/8 inch (15.9 mm) thick type X drywall was applied over the Sure-Board and screwed to the studs with 1-5/8" #8 self tapping screws at 8 inches (203 mm) O.C. at the perimeter and 12 inches (305 mm) O.C. in the field. The drywall was oriented horizontally. The panel edges, joints, and screw heads were sealed with metal tape. On the receive room side, 5/8 inch (15.9 mm) thick type X drywall was screwed to the studs with 1-5/8" #8 self tapping screws at 8 inches (203 mm) O.C. at the perimeter and 12 inches (305 mm) O.C. in the field. The drywall was oriented vertically. The panel edges, joints, and screw heads were sealed with metal tape. Nominal 6 inch (152 mm) thick Johns Manville R-19 sound control fiberglass insulation was installed in the stud space. The overall dimensions of the wall assembly were 96 inches (2.44 m) wide by 96 inches (2.44 m) high by 4-7/8 inches (124 mm) thick. The overall weight of the assembly was estimated to be 454 lbs. (206 kg) for a calculated surface density of 7.09 lbs./ft<sup>2</sup> (34.6 kg/m<sup>2</sup>).

### RESULTS OF THE MEASUREMENTS

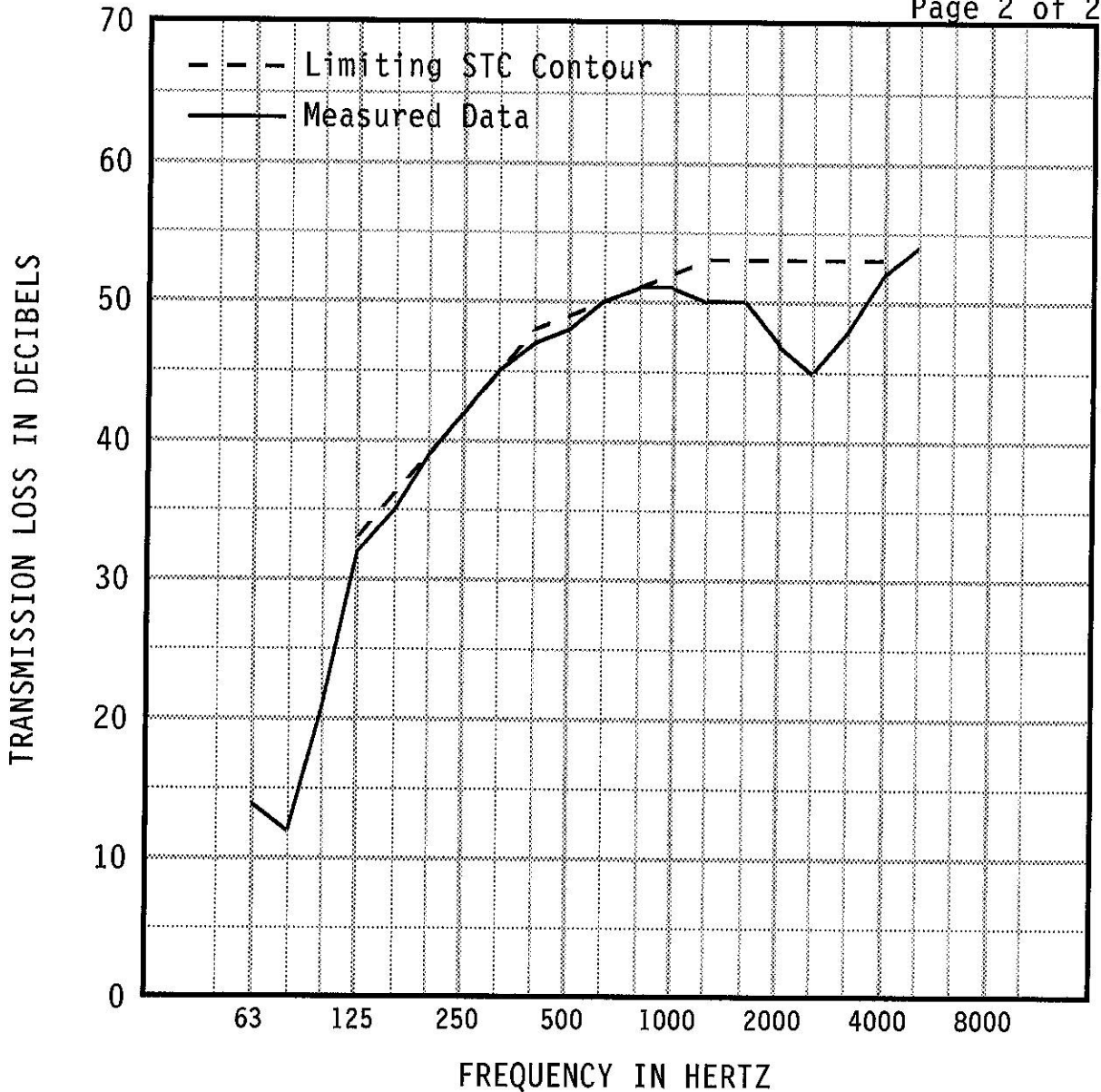
One-third octave band sound transmission loss values are plotted and tabulated on the attached sheet. ASTM minimum volume requirements are met at 80 Hz and above. The Sound Transmission Class rating determined in accordance with ASTM E 413-04 was STC-49.

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		14	12	21	32	35	39	42	45	47	48
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
					(1)	(1)	(0)	(0)	(0)	(1)	(1)
1/3 OCT BND CNTR	FREQ	630	800	1000	1250	1600	2000	2500	3150	4000	5000
TL in dB		50	51	51	50	50	47	45	48	52	54
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
		(0)	(0)	(1)	(3)	(3)	(6)	(8)	(5)	(1)	

EWR	OITC
50	31

Specimen Area: 64 sq.ft.

Temperature: 75 deg. F

Relative Humidity: 48 %

Test Date: 18 November 2005

STC
49
(31)