



Important Notice

In August 1, 2013, PABCO® Gypsum, a division of PABCO® building products, LLC acquired the QuietRock® business and operations from Serious Energy, Inc. Serious Energy, Inc. corporate structure and legal name changed through the years from Quiet Solution, Inc. to Serious Materials, Inc to Serious Energy, Inc. The acquisition of the QuietRock® business by PABCO® Gypsum includes the products, technical data, test reports and other intellectual property. For the avoidance of confusion, references to "Quiet Solution", "Serious Materials", or "Serious Energy" used within test reports, in general, should be understood as references to PABCO® Gypsum as of August 1, 2013.



WESTERN ELECTRO - ACOUSTIC LABORATORY

A division of Veneklasen Associates, Inc.

TESTING • CALIBRATION • RESEARCH

25132 Rye Canyon Loop Santa Clarita, California 91355 Tel: (661) 775-3741 Fax: (661) 775-3742 www.weal.com

SOUND TRANSMISSION LOSS TEST REPORT NO. TL10-395

CLIENT: **Serious Materials**
1250 Elko Drive
Sunnyvale, California 94089
TEST DATE: 7 May 2010

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14 May 2010

INTRODUCTION

The methods and procedures used for each test conform to the provisions and requirements of ASTM E 90-09, *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions* and ASTM E2235-04^{e1}, *Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods*. 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 the United States Department of Commerce, National Institute of Standards and Technology under the National Voluntary Accreditation Program (NVLAP) Lab Code 100256-0 for this test procedure. This test report relates only to the item(s) tested. This report must not be used to claim product certification, approval, or endorsement by WEAL, NVLAP, NIST or any agency of the federal government.


DESCRIPTION OF TEST SPECIMEN

The test specimen was a wall assembly constructed from metal studs, type X gypsum board, and QuietRock® panels. The studs were 92 mm (3-5/8 inch) 16 gauge metal and were spaced at 610 mm (24 inches) O.C. The head and sill tracks were also 92 mm (3-5/8 inch) 16 gauge metal. The frame was isolated from the test opening with 1/4 inch (6.4 mm) neoprene pads. R-13 fiberglass batts, 89 mm (3-1/2 inch) thick, were installed in the stud space. On the source room side, one layer of 5/8 inch (15.9 mm) thick type X gypsum board was screwed to the studs at 8 inches (203 mm) O.C. around the perimeter and 12 inches (305 mm) O.C. in the field using 28.6 mm (1-1/8) drywall screws. On the receiving room side, one layer of 5/8 inch (15.9 mm) thick QuietRock® ES was screwed to the studs at 8 inches (203 mm) O.C. around the perimeter and 12 inches (305 mm) O.C. in the field using 28.6 mm (1-1/8) drywall screws. All gypsum board and QuietRock® was oriented vertically and the joints were staggered on opposite sides of the wall. All joints and perimeters were sealed with a bead of caulking and metal foil tape. Screw heads were covered with metal foil tape. The overall dimensions of the wall assembly were 2.44 m (96 inches) wide by 2.44 m (96 inches) high by 124 mm (4-7/8 inches) thick. The overall weight of the assembly was estimated to be 185 kg (408 lbs.) for a calculated surface density of 31.1 kg/m² (6.37 lbs./ft²).


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 Outdoor-Indoor Transmission Class rating determined in accordance with ASTM E 1332-90(2003) was OITC-34. The Sound Transmission Class rating determined in accordance with ASTM E 413-04 was STC-49.

Approved:


Gary E. Mange
Laboratory Director

Respectfully submitted,
Western Electro-Acoustic Laboratory


Raul Martinez
Acoustical Test Technician

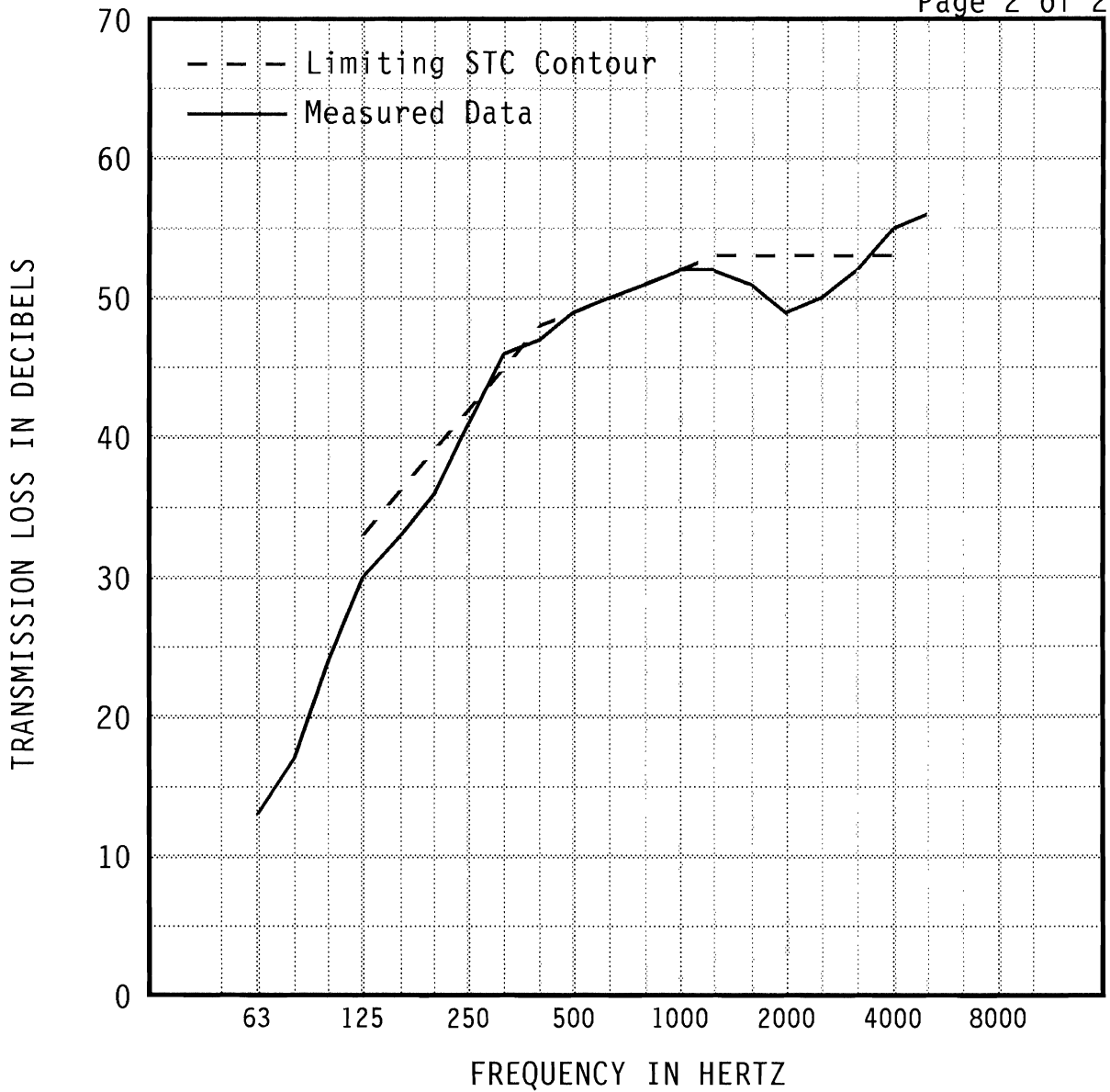
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NVLAP LAB CODE 100256-0

WESTERN ELECTRO-ACOUSTIC LABORATORY

Report No. TL10-395



1/3 OCT BND CNTR	FREQ	63	80	100	125	160	200	250	315	400	500
TL in dB		13	17	24	30	33	36	41	46	47	49
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
					(3)	(3)	(3)	(1)		(1)	(0)
1/3 OCT BND CNTR	FREQ	630	800	1000	1250	1600	2000	2500	3150	4000	5000
TL in dB		50	51	52	52	51	49	50	52	55	56
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)	(0)	(1)	(2)	(4)	(3)	(1)		

EWR	OITC	Specimen Area: 64 sq.ft. Temperature: 72 deg. F Relative Humidity: 32 % Test Date: 07 May 2010	STC 49 (22)
50	34		

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