



WESTERN ELECTRO - ACOUSTIC LABORATORY

A division of Veneklasen Associates, Inc.

T E S T I N G • C A L I B R A T I O N • R E S E A R C H

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. TL09-236

CLIENT: **Therma Tru**
1750 Indian Wood Circle
Maumee, Ohio 43537
TEST DATE: 16 March 2009

Page 1 of 2
24 March 2009

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 Therma-Tru fiberglass Noise Reduction door assembly with a Therma-Tru Noise Reduction Lite Assembly. The frame was 3/4 inch (19.1 mm) inside / 1-1/2 inch (38.1 mm) outside by 4-9/16 inch (116 mm) wood on the sides and top. At the bottom was a Therma-Tru adjustable sill assembly. The specimen was installed by sliding it completely into the test chamber opening and capturing it with screws through the frame. The specimen was sealed into the test chamber opening with a heavy duct seal putty around the entire perimeter on both sides. The door consisted of fiberglass skins with an engineered lumber core with the Therma-Tru Noise Reduction lite assembly. The vision lite was approximately 22 inches (559 mm) wide by 64 inches (1.63 m) high and consisted of a 1 inch (25.4 mm) dual glazed unit which was 3/8 inch (9.5 mm) laminated glass, 1/2 inch (12.7 mm) air space, and 1/8 inch (3.2 mm) double strength glass. The laminated glass consisted of 5/32 inch (4 mm) annealed glass, .090 inch (2.3 mm) PVB interlayer, and 1/8 inch (3 mm) annealed glass. The unit was sealed only on the exterior side with a glazing bead and was captured by screwing together the two glazing lite frame members. The overall thickness of the door panel was 1-11/16 inches (42.9 mm) and it was hung on three 4 inch (102 mm) hinges. The weather stripping used was Therma-Tru's Long Reach foam filled weather strip on the top and lock side jambs. The hinge side jamb used Q-Lon p/n QEBD-825 foam filled weather strip. The sealing on the bottom was the Therma-Tru double bulb PVC door bottom. An aluminum threshold with a 3/8 inch (9.5 mm) rise was located on the sill. The door panel was held in the closed position with a knobbed lockset. The net outside frame dimensions of the door assembly were 37-5/8 inches (953 mm) wide by 82 inches (2.08 m) high by 4-9/16 inches (116 mm) thick. The overall weight of the door assembly was 142 lbs. (64.4 kg). The dimensions of the door panel were 36 inches (914 mm) wide by 79-1/4 inches (2.01 m) high by 1-11/16 inches (42.9 mm) thick. The weight of the door slab assembly was 121 lbs. (54.9 kg) for a calculated surface density of 5.67 lbs./ft² (27.7 kg/m²). The door was opened and closed five times immediately prior to the test.

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-36. The Outdoor-Indoor Transmission Class determined in accordance with ASTM E 1332-90(2003) was OITC-31. The Exterior Wall Rating was EWR 37.

Approved:

Gary E. Mange
Laboratory Director

Respectfully submitted,
Western Electro-Acoustic Laboratory

Raul Martinez
Acoustical Test Technician

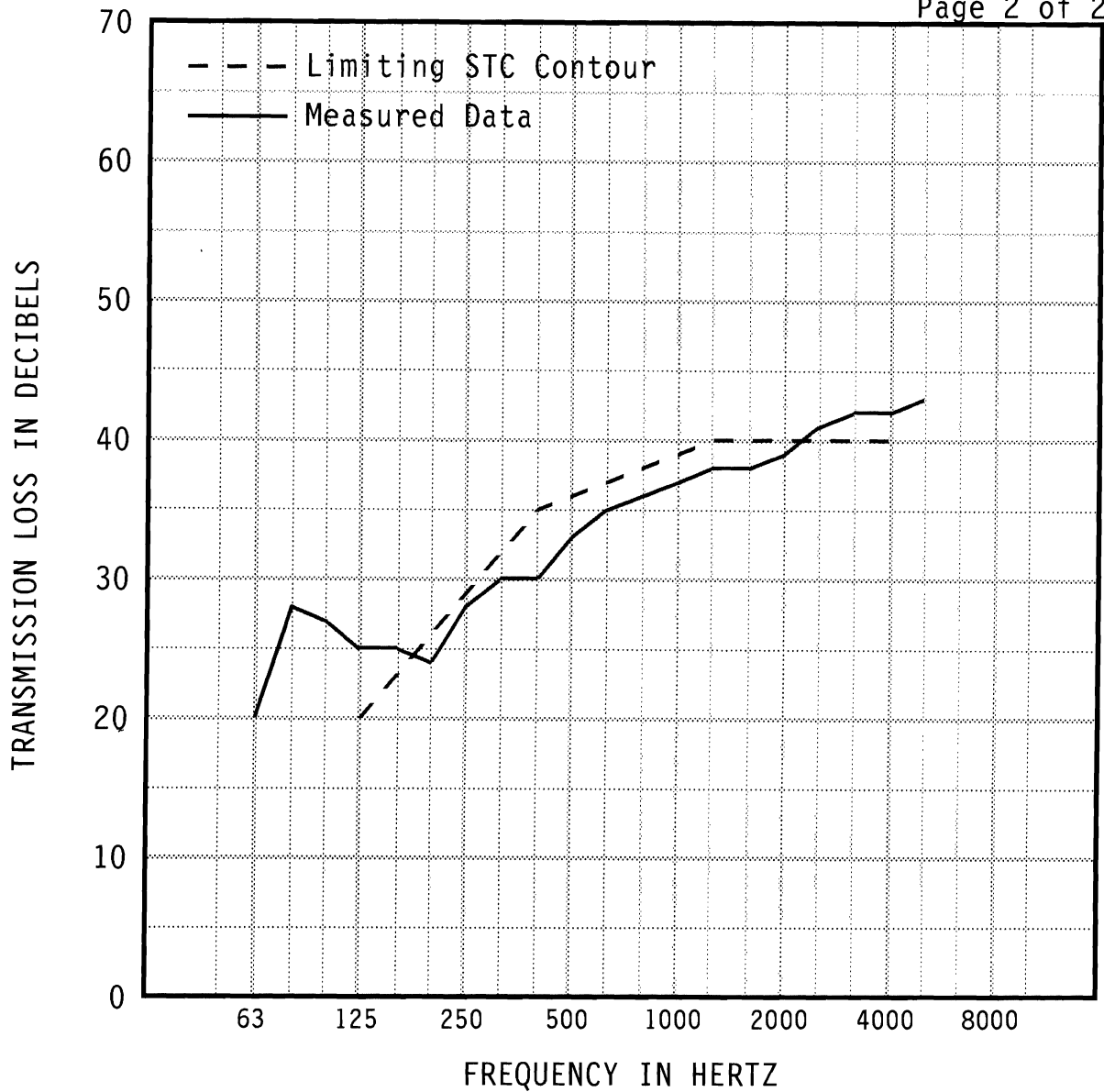
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1/3 OCT BND CNTR	FREQ	63	80	100	125	160	200	250	315	400	500
TL in dB		20	28	27	25	25	24	28	30	30	33
95% Confidence in dB deficiencies		1.42	1.92	2.07	1.47	0.89	0.76 (2)	0.80 (1)	0.52 (2)	0.36 (5)	0.38 (3)
1/3 OCT BND CNTR	FREQ	630	800	1000	1250	1600	2000	2500	3150	4000	5000
TL in dB		35	36	37	38	38	39	41	42	42	43
95% Confidence in dB deficiencies		0.29 (2)	0.44 (2)	0.38 (2)	0.39 (2)	0.36 (2)	0.56 (1)	0.55	0.31	0.32	0.50

EWR	OITC	Specimen Area: 21.35 sq.ft. Temperature: 70 deg. F Relative Humidity: 34 % Test Date: 16 March 2009	STC
37	31		36 (24)

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SOUND TRANSMISSION LOSS TEST REPORT NO. TL08-739

CLIENT: **Therma Tru**
1750 Indian Wood Circle
Maumee, Ohio 43537

Page 1 of 2
24 March 2009

TEST DATE: 16 December 2008

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 completely sealed, non-operable Therma-Tru fiberglass Noise Reduction door assembly with a Therma-Tru Noise Reduction Lite Assembly. The frame was 3/4 inch (19.1 mm) inside / 1-1/2 inch (38.1 mm) outside by 4-9/16 inch (116 mm) wood on the sides and top. At the bottom was a Therma-Tru adjustable sill assembly. The specimen was installed by sliding it completely into the test chamber opening and capturing it with screws through the frame. The specimen was sealed into the test chamber opening with a heavy duct seal putty around the entire perimeter on both sides. The door consisted of fiberglass skins with an engineered lumber core with the Therma-Tru Noise Reduction lite assembly. The vision lite was approximately 22 inches (559 mm) wide by 64 inches (1.63 m) high and consisted of a 1 inch (25.4 mm) dual glazed unit which was 3/8 inch (9.5 mm) laminated glass, 1/2 inch (12.7 mm) air space, and 1/8 inch (3.2 mm) double strength glass. The laminated glass consisted of 5/32 inch (4 mm) annealed glass, .090 inch (2.3 mm) PVB interlayer, and 1/8 inch (3 mm) annealed glass. The unit was sealed only on the exterior side with a glazing bead and was captured by screwing together the two glazing lite frame members. The overall thickness of the door panel was 1-11/16 inches (42.9 mm) and it was hung on three 4 inch (102 mm) hinges. The door panel was held in the closed position with a knobbed lockset. The door panel was sealed with duct tape around the entire perimeter on both sides. The net outside frame dimensions of the door assembly were 37-5/8 inches (953 mm) wide by 82 inches (2.08 m) high by 4-9/16 inches (116 mm) thick. The overall weight of the door assembly was 142 lbs. (64.4 kg). The dimensions of the door panel were 36 inches (914 mm) wide by 79-1/4 inches (2.01 m) high by 1-11/16 inches (42.9 mm) thick. The weight of the door slab assembly was 121 lbs. (54.9 kg) for a calculated surface density of 5.67 lbs./ft² (27.7 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-38. The Outdoor-Indoor Transmission Class determined in accordance with ASTM E 1332-90(2003) was OITC-32. The Exterior Wall Rating was EWR 38.

Approved:

Gary E. Mange
Laboratory Director

Respectfully submitted,
Western Electro-Acoustic Laboratory

Raul Martinez
Acoustical Test Technician

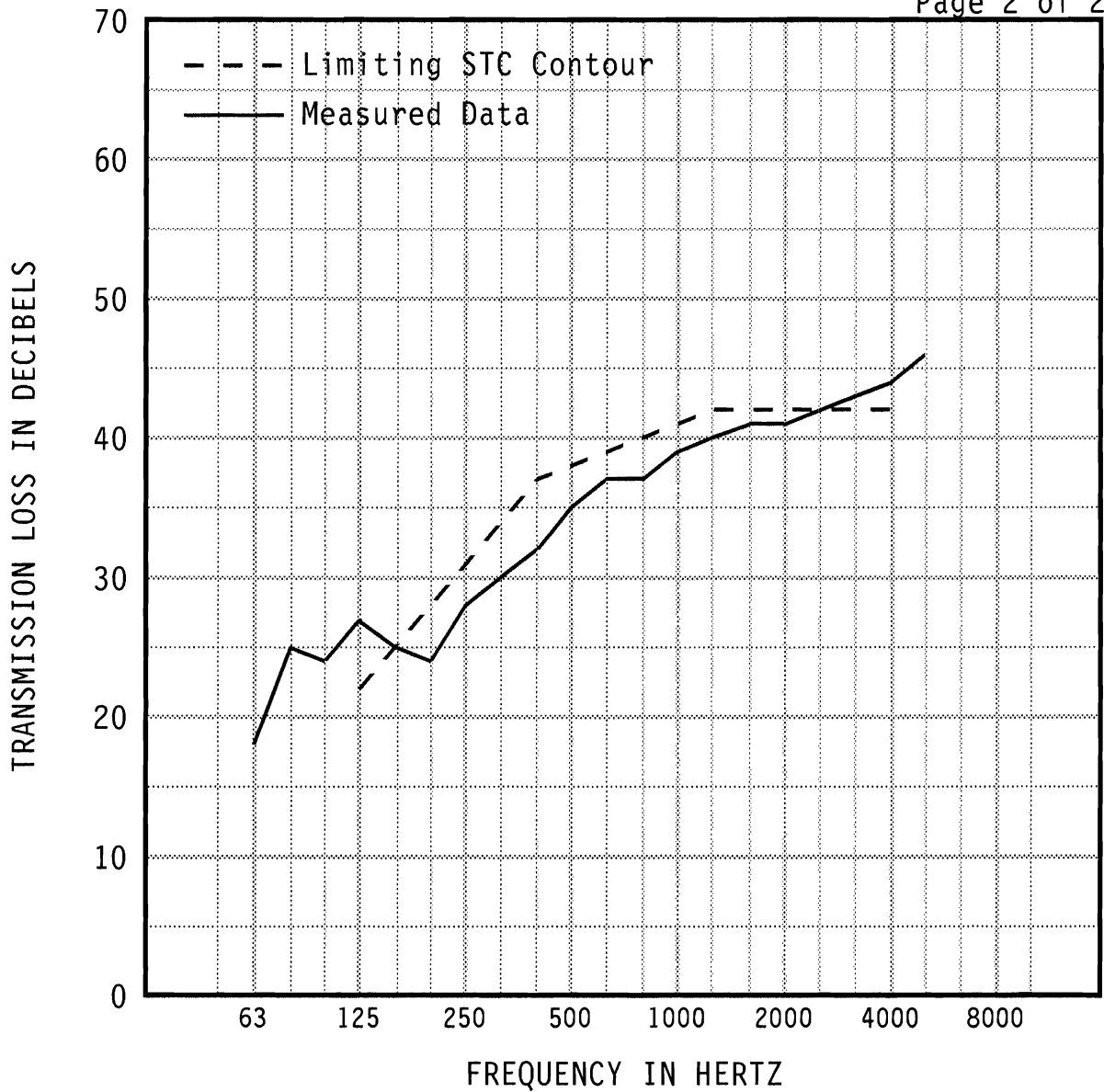
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Report No. TL08-739



1/3 OCT BND CNTR FREQ	63	80	100	125	160	200	250	315	400	500
TL in dB	18	25	24	27	25	24	28	30	32	35
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
					(0)	(4)	(3)	(4)	(5)	(3)
1/3 OCT BND CNTR FREQ	630	800	1000	1250	1600	2000	2500	3150	4000	5000
TL in dB	37	37	39	40	41	41	42	43	44	46
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
	(2)	(3)	(2)	(2)	(1)	(1)	(0)			

EWR 38	OITC 32	Specimen Area: 21.43 sq.ft. Temperature: 70.7 deg. F Relative Humidity: 33 % Test Date: 16 December 2008	STC 38 (30)
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