

FOR: **All Noise Control**
West Palm Beach, FL

Sound Transmission Loss
RAL™-TL13-012

CONDUCTED: 15 January 2013

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ON: Extruded Mass Loaded Vinyl Barrier Material

TEST METHOD

Unless otherwise designated, the measurements reported below were made with all facilities and procedures in explicit conformity with the ASTM Designations E90-09 and E413-10, as well as other pertinent standards. Riverbank Acoustical Laboratories has been accredited by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) for this test procedure (NVLAP Lab Code: 100227-0). A description of the measuring technique is available separately.

DESCRIPTION OF THE SPECIMEN

The manufacturer's description of the specimen was as follows: Extruded Mass Loaded Vinyl Barrier Material. A visual inspection by Riverbank staff verified the manufacturer's description of the specimen, further disclosing a 3.45 mm thick homogenous vinyl sheet with textured surface.

The overall dimensions of the specimen as measured were 1.22 m (48.00 in.) wide by 2.44 m (96.00 in.) high and 3.30 mm (0.13 in.) thick. The weight of the specimen as measured was 14.5 kg (32.0 lbs.), an average of 4.9 kg/m² (1.0 lbs/ft²). The specimen was placed directly in the laboratory's 1.22 m (4 ft) by 2.44 m (8 ft) test opening and was sealed on the periphery (both sides) with dense mastic.

The source room temperature at the time of the test was 22±0°C (71±0°F) and 50±1% relative humidity. The receiving room temperature at the time of the test was 23±0°C (73±1°F) and 52±1% relative humidity. The source and receive reverberation room volumes were 178 m³ (6,298 ft³) and 136 m³ (4,801 ft³), respectively. The transmission area used in the calculations was 3.0 m² (32 ft²).

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RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

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TEST RESULTS

Sound transmission loss values are tabulated at the eighteen standard frequencies. A graphic presentation of the data and additional information appear on the following pages. The precision of the TL test data is within the limits set by the ASTM Standard E90-09.

<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>	<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>
100	19	0.84		800	25	0.18	3
125	17	0.53		1000	26	0.12	3
160	18	0.79		1250	28	0.14	2
200	16	0.48		1600	30	0.09	
250	16	0.75	3	2000	32	0.10	
315	19	0.34	3	2500	33	0.09	
400	20	0.35	5	3150	35	0.04	
500	22	0.18	4	4000	36	0.08	
630	24	0.17	3	5000	38	0.06	

STC=26

ABBREVIATION INDEX

FREQ. = FREQUENCY, HERTZ, (cps)

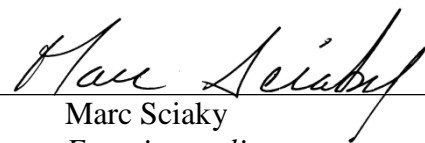
T.L. = TRANSMISSION LOSS, dB

C.L. = UNCERTAINTY IN dB, FOR A 95% CONFIDENCE LIMIT

DEF. = DEFICIENCIES, dB<STC CONTOUR (SUM OF DEF = 26)

STC = SOUND TRANSMISSION CLASS

Tested by


Marc Sciaky
Experimentalist

Approved by


Laboratory Manager

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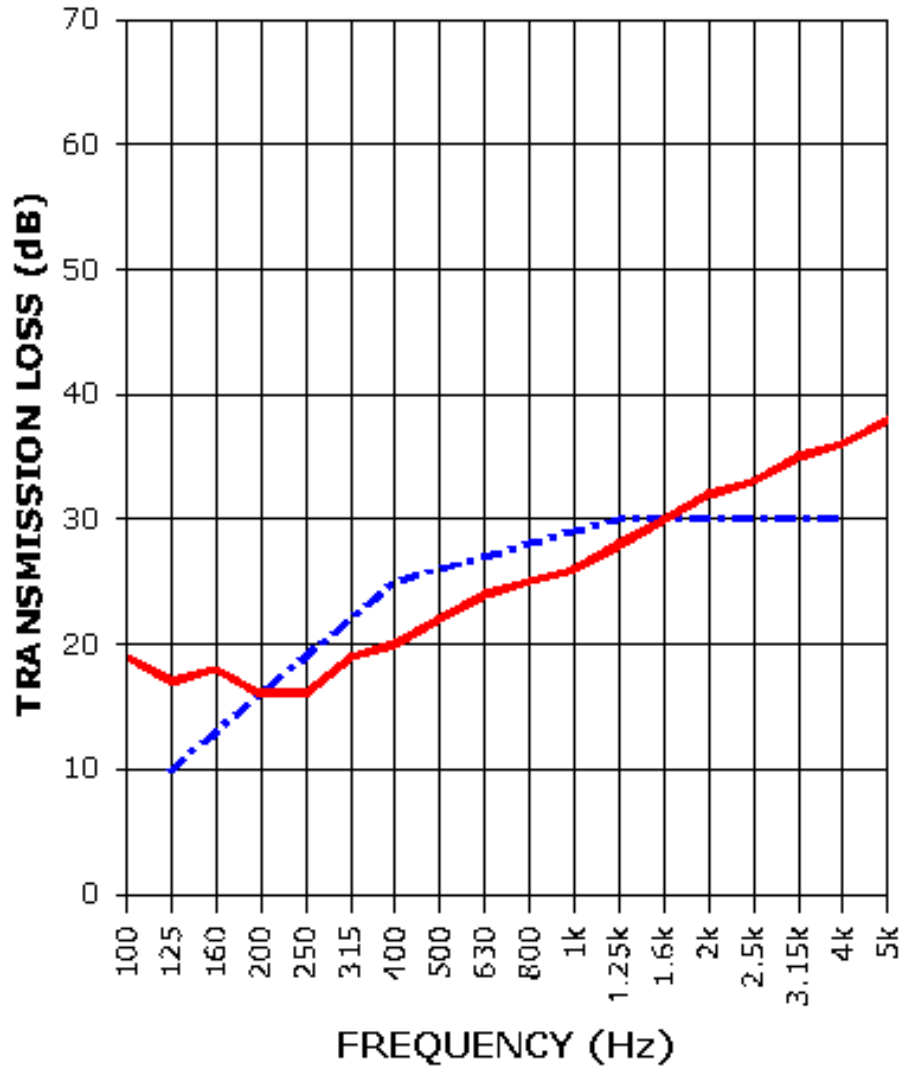
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SOUND TRANSMISSION REPORT
Extruded Mass Loaded Vinyl Barrier Material



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TRANSMISSION LOSS
SOUND TRANSMISSION LOSS CONTOUR

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Appendix to ASTM E90 Sound Transmission Loss Test
Additional Frequency Data

Product Description: Extruded Mass Loaded Vinyl Barrier Material (See Full Report)

As requested by the client, transmission loss (TL) values were calculated at additional test frequencies. Although the measurements were made in accordance with the procedures described in ASTM E90-09, they do not qualify as part of the standard. Since the results are representative of the test environment only, they are unofficial and intended for research and development guidelines rather than for commercial purposes. The transmission loss values at the additional frequencies were as follows:

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1/3 Octave Center Frequency (Hz)	Sound Transmission Loss (dB)
40	12
50	12
63	6
80	7
6300	40
8000	41
10000	44

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