RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

Alion Science and Technology

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

TEST REPORT

FOR: **Kinetics Noise Control, Inc.**
Dublin, OH.

Sound Transmission Loss
RAL™-TL14-183

CONDUCTED: 29 May 2014

ON: KNM 200B mass-loaded, limp vinyl barrier

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: KNM 200B mass-loaded, limp vinyl barrier. A visual inspection by riverbank staff verified the manufacturer's description of the specimen. The specimen consisted of a 5.08 mm (0.20 in) thick mass-loaded vinyl barrier.

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 5.08 mm (0.20 in.) thick. The measured weight of the entire specimen was 27.8 kg (61.3 lbs.), an average of 9.3 kg/m^2 (1.9 lbs/ft^2). The specimen was tested in the laboratory's 1.22 m (4 ft) by 2.44 m (8 ft) test opening and sealed on the periphery (both sides) with dense mastic.

The source room temperature at the time of the test was 23±0ºC (73±1ºF) and 51±1% relative humidity. The receiving room temperature at the time of the test was 22±0ºC (72±1ºF) and 49±1% relative humidity. The source and receive reverberation room volumes were 178 m^3 (6,298 ft^3) and 139 m^3 (4,918 ft^3), respectively. The transmission area used in the calculations was 3.0 m^2 (32 ft^2).

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Figure 1 - Specimen mounted in the test opening.

Figure 2 - Detail of the test specimen.

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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.

FREQ.	T.L.	C.L.	DEF.	FREQ.	T.L.	C.L.	DEF.
100	22	0.90		800	30	0.14	3
125	21	0.63		1000	32	0.13	2
160	21	0.69		1250	34	0.18	1
200	21	0.57		1600	35	0.10	
250	22	0.41	2	2000	37	0.09	
315	24	0.26	3	2500	39	0.12	
400	25	0.37	5	3150	41	0.08	
500	27	0.19	4	4000	42	0.05	
630	29	0.22	3	5000	45	0.06	

STC=31

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 = 23)
STC = SOUND TRANSMISSION CLASS

Tested by _____ Approved by _____

Dean Victor
Senior Experimentalist

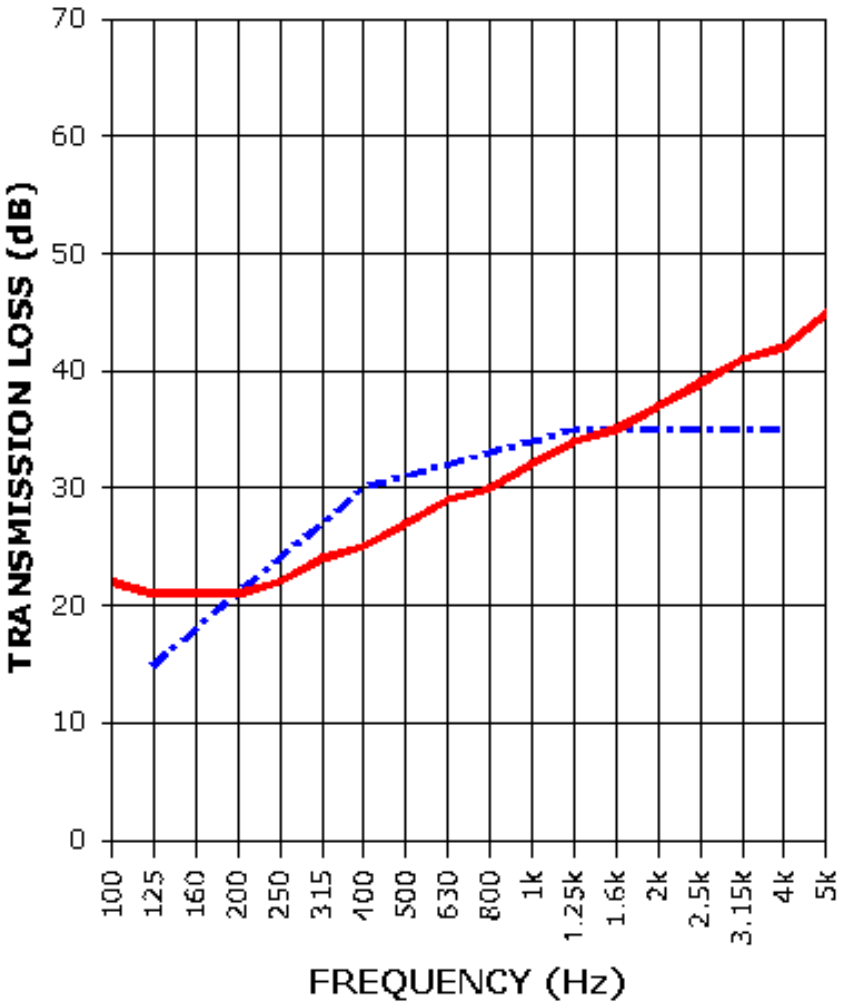
Eric P. Wolfram
Laboratory Manager

Digitally signed by Eric Wolfram
DN: cn=Eric Wolfram, o=Alion Science and Technology, ou=Riverbank Acoustical Laboratories, email=ewolfram@alionscience.com, c=US
Date: 2014.06.02 10:41:49 -05'00'

NVLAP LAB CODE 100227-0

SOUND TRANSMISSION REPORT

KNM 200B mass-loaded, limp vinyl barrier



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TRANSMISSION LOSS
SOUND TRANSMISSION LOSS CONTOUR

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Appendix to ASTM E90 Sound Transmission Loss Test
Extended Frequency Range Data

Product Description: KNM 200B mass-loaded, limp vinyl barrier (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:

	RAL™-TL14-183
1/3 Octave Center Frequency	Sound Transmission Loss
(Hz)	(dB)
40	18
50	17
63	12
80	10
6300	47
8000	49
10000	52