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: Acoustiblok Sound Transmission Loss Test

RALTM-TL03-085

ON: Acoustiblok 16

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CONDUCTED: 14 March 2003

TEST METHOD

Unless otherwise designated, the measurements reported below were made with all facilities and procedures in explicit conformity with the ASTM Designations E90-02 and E413-87, 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. A description of the measuring technique is available separately.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as Acoustiblok 16. The overall dimensions of the specimen as measured were 1.22 m (48 in.) wide by 2.44 m (96 in.) high and 2.54 mm (0.1 in.) thick. The specimen was a 16 oz. per square foot vinyl barrier. 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 a dense mastic.

The weight of the specimen as measured was 13.6 kg (30 lbs.), an average of 4.4 kg/m^2 (0.9 lbs/ft²). The transmission area used in the calculations was 3 m² (32 ft²). The source and receiving room temperatures at the time of the test were $24\pm1^{\circ}\text{C}$ (75±2°F) and $59\pm1^{\circ}\text{M}$ relative humidity. The source and receive reverberation room volumes were 178 m³ (6,298 ft³) and 139 m³ (4,912 ft³), respectively.



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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 E90-02.

FREQ.	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>		FREQ.	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>
				_				
100	19	0.95			800	25	0.14	3
125	12	0.99			1000	26	0.18	3
160	14	0.59			1250	28	0.16	2
200	16	0.41			1600	30	0.15	
250	17	0.32	2		2000	31	0.08	
315	19	0.32	3		2500	33	0.14	
400	20	0.22	5		3150	34	0.09	
500	22	0.22	4		4000	36	0.10	
630	23	0.20	4		5000	38	0.08	

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

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Tested by Approved by

> Dean Victor David L. Moyer Senior Experimentalist Laboratory Manager

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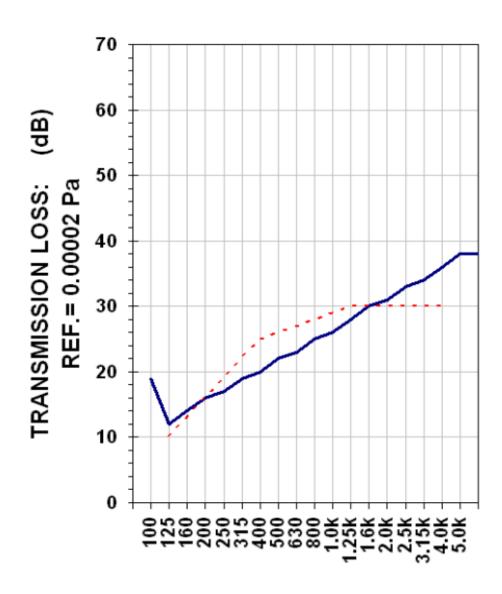
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TEST REPORT

SOUND TRANSMISSION REPORT RAL-TL03-085



FREQUENCY (Hz)

____ TRANSMISSION LOSS

____ SOUND TRANSMISSION CLASS CONTOUR

STC = 26

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