

1512 S. BATAVIA AVENUE GENEVA, ILLINOIS 60134 Alion Science and Technology

TEST REPORT

630/232-0104 FOUNDED 1918 BY WALLACE CLEMENT SABINE

FOR: Acoustiblok Tampa, FL

ON: Panel WSMSAB802

Sound Transmission Loss Test RALTM-TL04-274

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CONDUCTED: 31 August 2004

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 panel WSMSAB802. The overall dimensions of the specimen as measured were 1.21 m (47.5 in.) wide by 2.43 m (95.5 in.) high and 124 mm (4.875 in.) thick. 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 manufacturer's description as provided by a drawing was as follows: Panel WSMSAB802 consisted of 3• " metal stud 24" on center; • " gypsum screwed 24" on center edges, 5/8" gypsum screwed 24" on center in field; 3¹/₂" thick R13 insulation; 16 oz. Acoustiblok; caulk all outside joint. A manufacturer's drawing is maintained on file. A visual inspection verified the manufacturer's description of the specimen.

The weight of the specimen as measured was 85.3 kg (188 lbs.), an average of 29.2 kg/m² (6 bs/ft²). The transmission area used in the calculations was 2.9 m² (31.5 ft²). The source and receiving room temperatures at the time of the test were $23\pm1^{\circ}$ C ($73\pm2^{\circ}$ F) and $51\pm2^{\circ}$ relative humidity. The source and receive reverberation room volumes were 178 m³ (6,297 ft³) and 131 m³ (4,648 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>	DEF.	FREQ.	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>
100	27	0.68		800	54	0.16	1
125	33	0.92	4	1000	56	0.16	
160	38	0.38	2	1250	56	0.10	1
• • • •	10			1		0.4.7	
200	42	0.55	1	1600	57	0.15	
250	45	0.37	1	2000	57	0.13	
315	45	0.37	4	2500	54	0.10	3
400	47	0.29	5	3150	56	0.10	1
500	50	0.27	3	4000	60	0.10	1
630	53	0.26	1	5000	63	0.15	

STC=53

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 = 27)
- STC = SOUND TRANSMISSION CLASS

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Tested by	Approved by						
Mar	c Sciaky	David L. Moyer					
Sen	ior Technician	Laboratory Manager					
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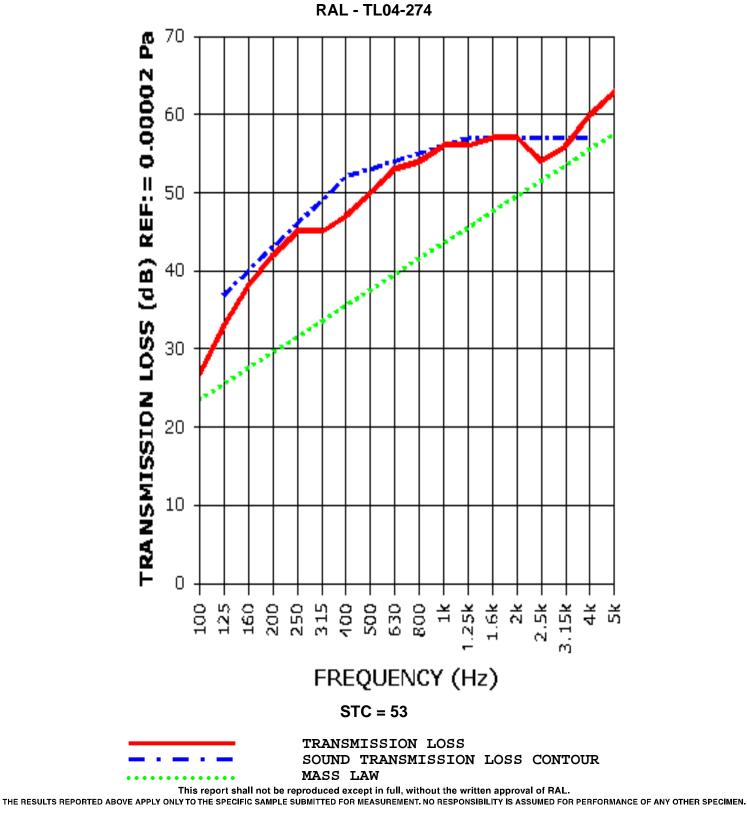
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