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: Overly Door Co.
Greensburg, PA

Sound Transmission Loss Test
RAL™-TL11-214

ON: Model STC4711214 (Fully Operable Swinging Door)

CONDUCTED: 24 August 2011

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 test specimen was designated by the manufacturer as Model STC4711214 (fully operable swinging door). The overall dimensions of the specimen as measured were nominally 908 mm (35.75 in.) wide by 2.13 m (83.688 in.) high and 44 mm (1.75 in.) thick. The specimen was placed directly in the client's adapter frame and tested in the 1.22 m (4 ft) by 2.44 m (8 ft) test opening. The adapter frame was sealed on the surface faces and periphery (both sides) with dense mastic.

The manufacturer's description of the specimen was as follows:

Both the lock and hinge edges of the door were continuously welded. The bottom of the door had a Zero 362 semi-mortised automatic door bottom. The 14 gauge metal frame was equipped with single magnetic seals at the head and jambs. The frame also had 4.7 mm (0.187 in.) steel hinge reinforcements with mud boxes. The door was hung on three 127 mm (5.0 in.) full mortise level swing hinges and was equipped with a functional heavy duty cylindrical lockset. The specimen was opened and closed at least five times, and the test was conducted with no further adjustments. A visual inspection verified the manufacturer's description of the specimen.

The weight of the specimen as measured was 78.7 kg (173.5 lbs.), an average of 40.8 kg/m^2 (8.4 lbs/ft^2). The transmission area used in the calculations was 2 m^2 (21 ft^2). The source and receiving room temperatures at the time of the test were 24°C (76±1°F) and 60±1% relative humidity. The source and receive reverberation room volumes were 178 m^3 (6,298 ft^3) and 140 m^3 (4,929 ft^3), 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 E90-09.

FREQ.	T.L.	C.L.	DEF.	FREQ.	T.L.	C.L.	DEF.
100	26	0.66		800	46	0.17	3
125	30	0.53	1	1000	48	0.17	2
160	33	0.78	1	1250	48	0.16	3
200	36	0.38	1	1600	49	0.11	2
250	39	0.70	1	2000	50	0.10	1
315	40	0.41	3	2500	50	0.09	1
400	44	0.29	2	3150	49	0.07	2
500	45	0.24	2	4000	49	0.06	2
630	46	0.24	2	5000	49	0.07	

STC=47

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 = 29)
STC = SOUND TRANSMISSION CLASS

Tested by _____ Approved by _____

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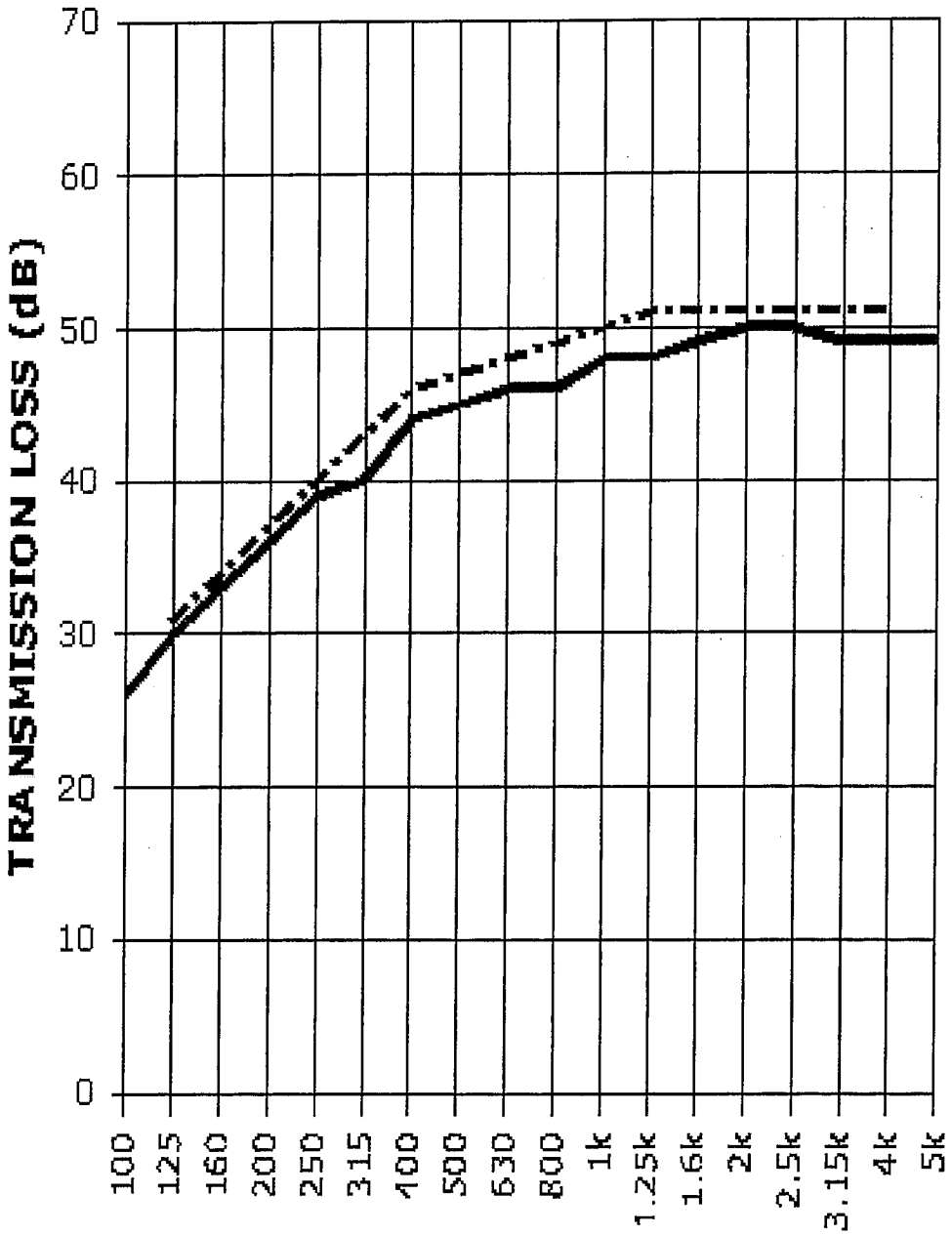

STC= 47

TRANSMISSION LOSS
SOUND TRANSMISSION LOSS CONTOUR