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™-TL12-019

ON: Fully Operable Swinging Door, Model STC4812019

CONDUCTED: 25 January 2012

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 a fully operable swinging door, Model STC4812019. 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 44.5 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:

On both the hinge and lock edges of the door, the outer skin was isolated from the inner skin by a 9.5 mm (0.375 in.) by 12.7 mm (0.5 in.) rubber insert. The door was equipped with a Zero #362 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 heavy weight level swing hinges and was equipped with a functional heavy duty cylindrical lockset. A manufacturer's description is maintained on file. At the request of the manufacturer the details of the construction were purposely withheld from this report in order that the manufacturer may control full proprietary rights regarding the product. A visual inspection verified the manufacturer's description of the specimen. The specimen was opened and closed at least five times, and the test was conducted with no further adjustments.

TEST REPORT

Overly Door Co.

RAL™-TL12-019

25 January 2012

The weight of the specimen as measured was 93.9 kg (207 lbs.), an average of 48.6 kg/m^2 (10.0 lbs/ft^2). The transmission area used in the calculations was 2.0 m^2 (21 ft^2). The source and receiving room temperatures at the time of the test were 21±1°C (69±1°F) and 52±2% relative humidity. The source and receive reverberation room volumes were 178 m^3 (6,298 ft^3) and 132 m^3 (4,660 ft^3), respectively.

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

Overly Door Co.

RAL™-TL12-019

25 January 2012

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	30	0.71		800	46	0.20	4
125	34	0.46		1000	47	0.15	4
160	37	0.81		1250	48	0.15	4
200	38	0.54		1600	51	0.15	1
250	42	0.56		2000	52	0.11	
315	45	0.35		2500	49	0.10	3
400	47	0.33		3150	48	0.08	4
500	48	0.17		4000	50	0.06	2
630	48	0.26	1	5000	52	0.05	

STC=48

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

Marc Sciaky
Experimentalist

RIVERBANK ACOUSTICAL LABORATORIES

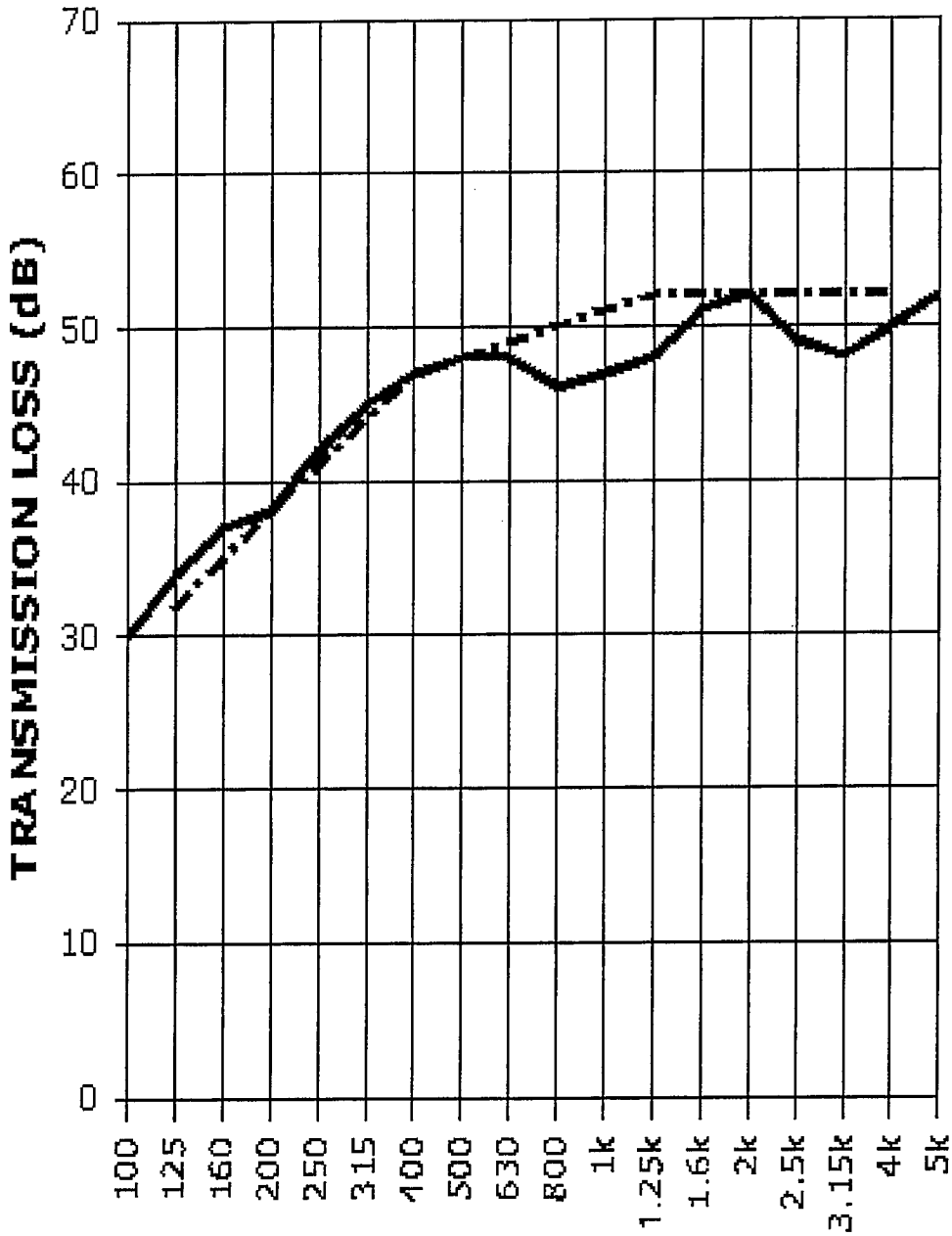
1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

Alion Science and Technology

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

TEST REPORT

SOUND TRANSMISSION REPORT
RAL – TL12-019



STC= 48

TRANSMISSION LOSS
SOUND TRANSMISSION LOSS CONTOUR