

RIVERBANK ACOUSTICAL LABORATORIES

1512 BATAVIA AVENUE
GENEVA, ILLINOIS 60134

OF
IIT RESEARCH INSTITUTE

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

FOR: Overly Manufacturing Company
ON: A Fully Operable Swinging Door
Model STC479725

Sound Transmission Loss
Test RAL™-TL97-25

Page 1 of 3

CONDUCTED: 30 January 1997

TEST METHOD

Unless otherwise designated, the measurements reported below were made with all facilities and procedures in explicit conformity with the ASTM Designations E90-90 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. The microphone used was a Bruel & Kjaer serial number 951371.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the client as a fully operable swinging door, Model STC479725. The overall dimensions of the door were nominally 914 mm (36 in.) wide by 2.13 m (84 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 periphery (both sides), and both surface faces of the frame, with a dense mastic. The manufacturer's description of the specimen was as follows:

The bottom of the door was equipped with a Zero #360 full mortise automatic door bottom. A 14 gauge metal frame was prepared with two (2) rows of "double bubble" seals at the head and jambs. The door was hung on three 5" full mortised level swing hinges and equipped with a fully 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 manufacturer's description is maintained on file. The weight of the door panel as measured was 73 kg (161 lbs) an average of 37.5 kg/m^2 (7.7 lbs/ft^2). The transmission area used in the calculations for transmission loss was 2.0 m^2 (21 ft^2). The source and receiving room temperatures at the time of the test were 19°C ($67 \pm 2^\circ\text{F}$) and $54 \pm 2\%$ relative humidity.

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.



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Page 2 of 3

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 are within the limits set by the ASTM Standard E90-90.


<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>	<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>
100	27	0.47	0	800	48	0.19	1
125	27	0.32	4	1000	50	0.22	0
160	33	0.31	1	1250	51	0.17	0
200	37	0.32	0	1600	50	0.17	1
250	38	0.31	2	2000	50	0.11	1
315	38	0.24	5	2500	49	0.13	2
400	40	0.27	6	3150	50	0.10	1
500	45	0.21	2	4000	52	0.09	0
630	48	0.19	0	5000	55	0.07	0

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
STC = SOUND TRANSMISSION CLASS

Tested and
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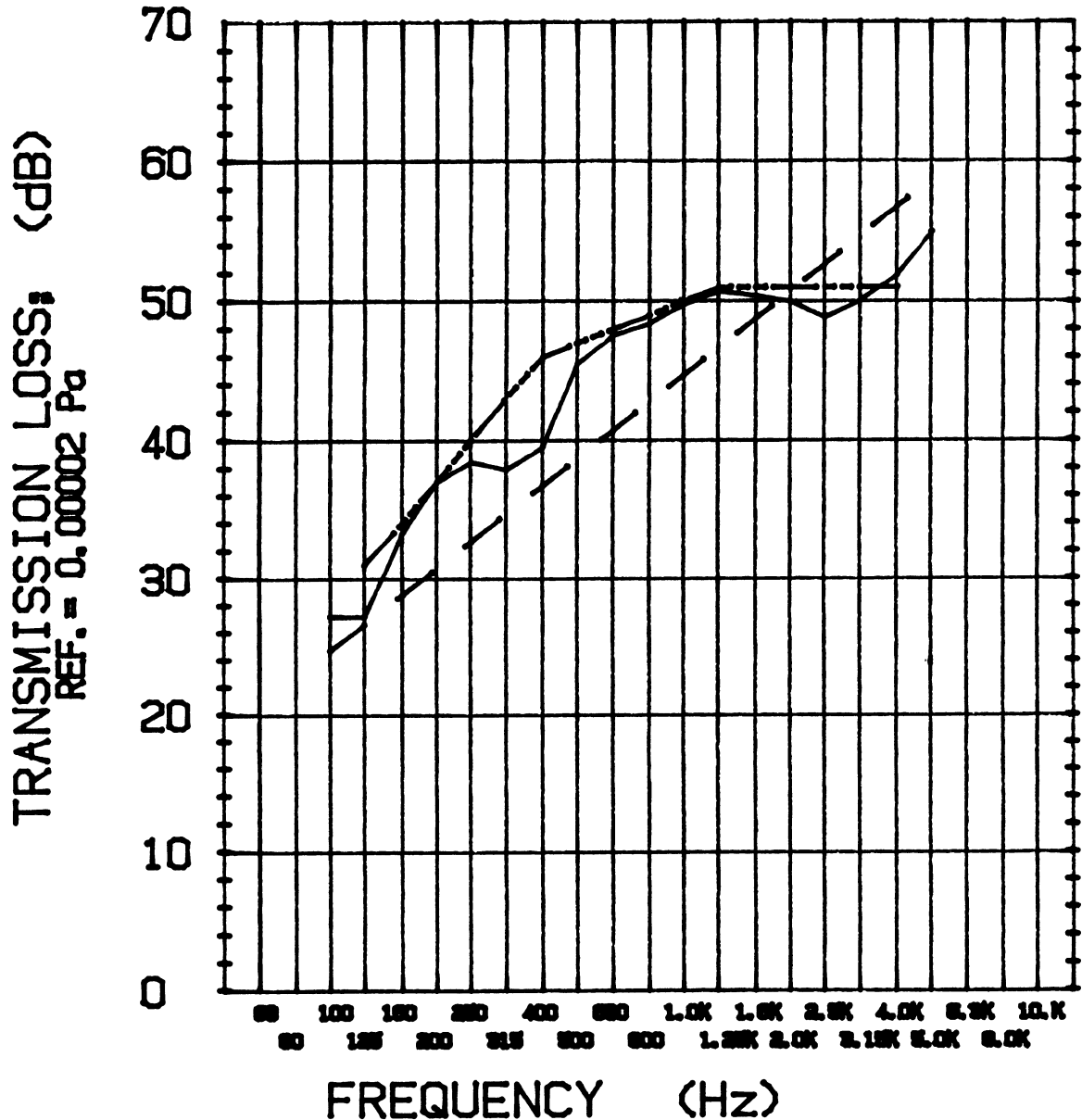
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TRANSMISSION LOSS REPORT RAL-TL97-25

PAGE 3 OF 3



- TRANSMISSION LOSS
- SOUND TRANSMISSION CLASS CONTOUR
- - - MASS LAW CONTOUR

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