

RIVERBANK ACOUSTICAL LABORATORIES

1512 BATAVIA AVENUE
GENEVA, ILLINOIS 60134

OF
IIT RESEARCH INSTITUTE

708/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

FOR: Overly Manufacturing Company

Sound Transmission Loss
Test RAL™-TL93-83

ON: Fully Operable Swinging
Door Model STC489383

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CONDUCTED: 22 March 1993

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 1330828.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as a fully operable swinging door, Model STC489383. The overall dimensions of the door panel were nominally 914 mm (36 in.) wide by 2.13 m (84 in.) high and 48 mm (1.875 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 both sides with a dense mastic. The manufacturer's description of the specimen was as follows:

The door was equipped with a Zero 362 semi-mortised automatic door bottom. The 14 gauge metal frame was

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DESCRIPTION OF THE SPECIMEN (con't)

equipped with single "H" seals of felt/neoprene composition 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 butt hinges and was equipped with a functional heavy duty cylindrical lockset. A visual inspection verified the manufacturer's description of the specimen. A manufacturer's description and detailed drawing file number 0699, page 9 of 9 are 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 full inspection was not performed in order to preserve the condition of the test specimen. The weight of the door panel as determined was 86.2 kg (190 lbs) an average of 44.2 kg/m² (9.0 lbs/ft²). The transmission area used in the calculations was 1.95 m² (21 ft²). The specimen was opened and closed at least five times, and the test was conducted with no further adjustments. The source and receiving room temperatures at the time of the test were 19°C (67±2°F) and 60±2% relative humidity.

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TEST RESULTS

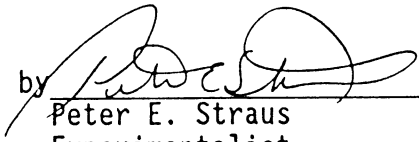
Sound transmission loss values are tabulated at the eighteen standard frequencies. A graphic presentation of the data and additional information appear on the following pages. The precision of the TL test data are within the limits set by the ASTM Standard E90-90.

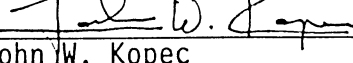
<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>	<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>
100	27	0.13	0	800	50	0.24	0
125	28	0.09	4	1000	50	0.22	1
160	31	0.13	4	1250	50	0.18	2
200	32	0.21	6	1600	53	0.18	0
250	33	0.29	8	2000	53	0.13	0
315	40	0.32	4	2500	54	0.10	0
400	47	0.31	0	3150	54	0.09	0
500	49	0.26	0	4000	55	0.09	0
630	50	0.28	0	5000	59	0.08	0

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
STC = SOUND TRANSMISSION CLASS

Submitted by 
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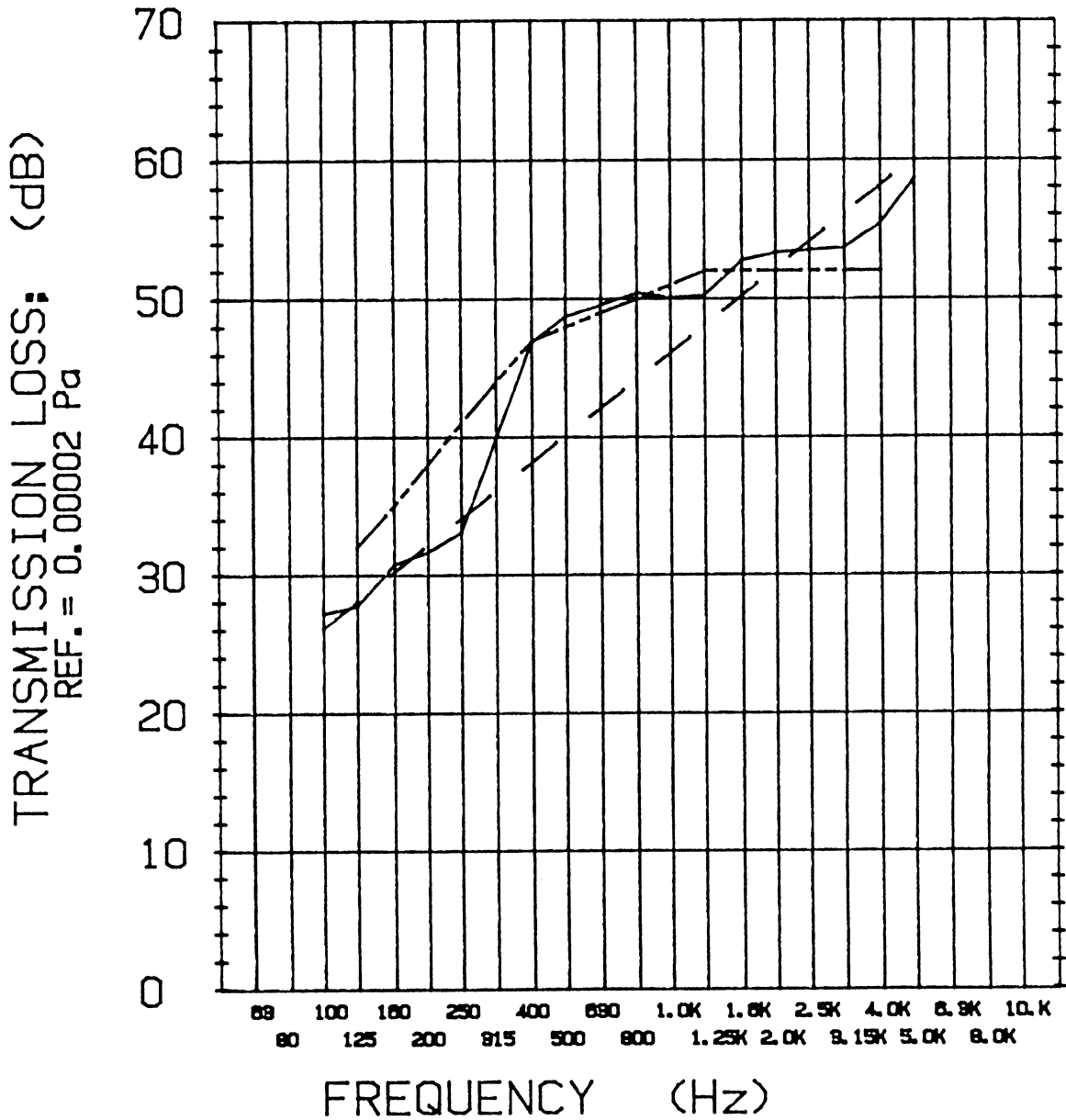
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REPORT

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

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