

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™-TL92-298

ON: Fully Operable Swinging
Door Model STC5492298

Page 1 of 4

CONDUCTED: 18 September 1992

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 1330658.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as a fully operable swinging door, Model STC5492298. The unit consisted of a metal frame and a reflective panel applied to the interior face of the door panel. The overall dimensions of the specimen as measured were 910 mm (35.81 in.) wide by 2.14 m (83.69 in.) high and 70 mm (2.75 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) with a dense mastic. The manufacturer's description of the specimen was as follows:

The bottom of the door had a fixed felt seal and an adjustable "Super H" closed cell neoprene seal. The 14 gauge metal frame was equipped with double "H" seals of felt/neoprene composition

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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RAL™-TL92-298

18 September 1992

Page 2 of 4

DESCRIPTION OF THE SPECIMEN (con't)

at the head and jambs. The frame had 4.7 mm (0.187 in.) steel hinge reinforcements with mud boxes. The door was hung on two full mortise cam-lift hinges and was equipped with a functional heavy duty cylindrical lockset. A manufacturer's description and detailed drawing file number 0667, page 13 of 13 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. The weight of the door panel as determined was 142 kg (314 lbs) an average of 72.8 kg/m² (15.0 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 24°C (75±2°F) and 60±2% relative humidity.

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18 September 1992

Page 3 of 4

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.

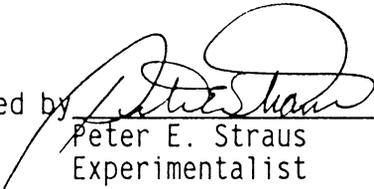
<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>	<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>
100	37	0.31	0	800	55	0.33	1
125	39	0.33	0	1000	55	0.29	2
160	41	0.38	0	1250	56	0.24	2
200	41	0.37	3	1600	60	0.20	0
250	44	0.36	3	2000	63	0.19	0
315	46	0.37	4	2500	64	0.17	0
400	49	0.40	4	3150	66	0.12	0
500	51	0.34	3	4000	68	0.10	0
630	53	0.30	2	5000	69	0.09	0

STC = 54

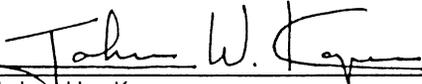
ABBREVIATION INDEX

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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Reviewed by


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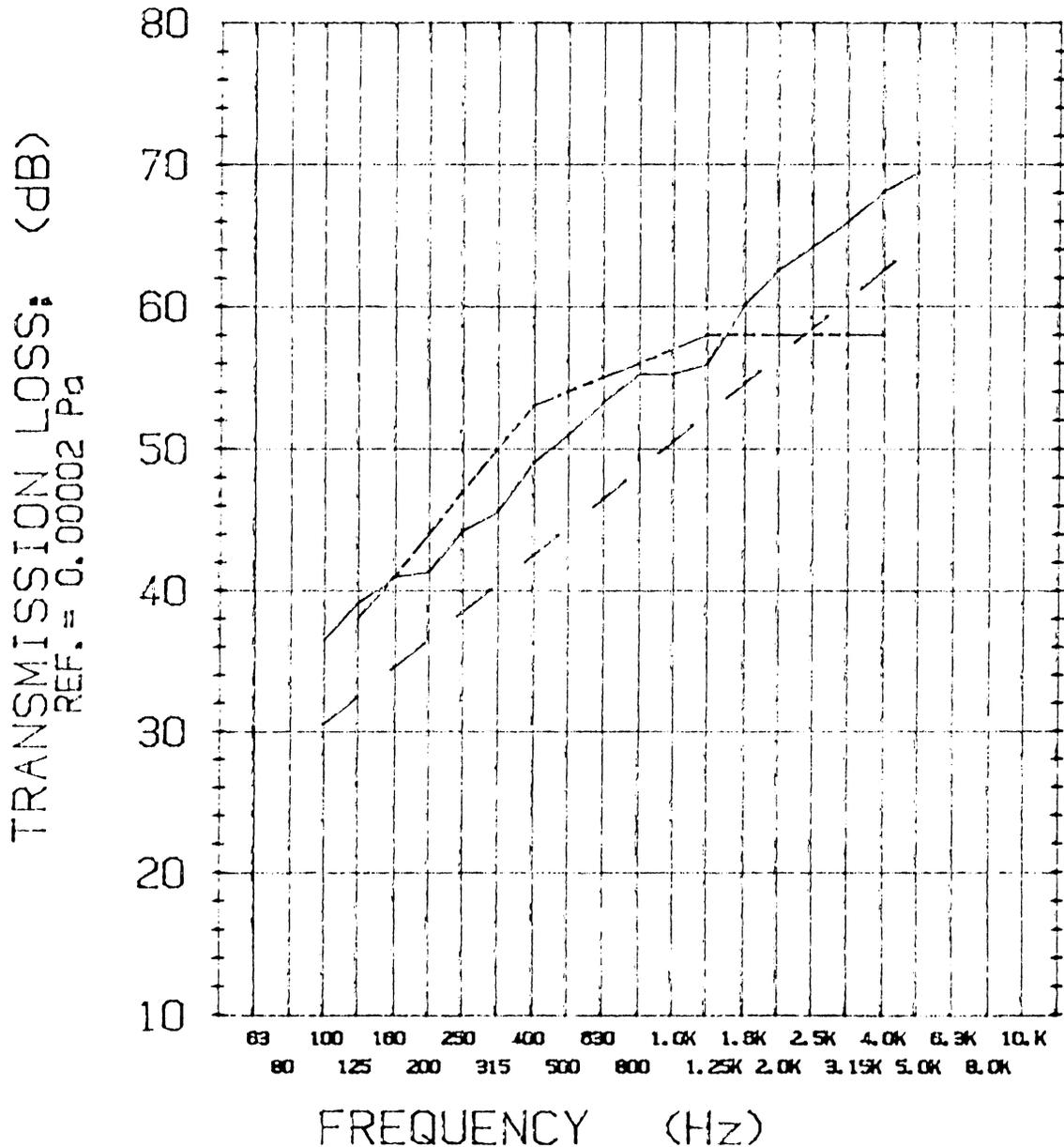
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REPORT

TRANSMISSION LOSS REPORT

RAL-TL92-298 Page 4 of 4



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

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