

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™-TL95-161

ON: Fully Operable Swing Pair of Doors
With Both Leafs Active
Model STC4895161

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CONDUCTED: 18 May 1995

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 1440522.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as a fully operable swinging pair of doors, with both leafs active, Model STC4895161. The overall dimensions of the specimen were nominally 0.9 m (36 in.) wide by 2.13 m (84 in.) high and 44 mm (1.75 in.) thick. Each door leaf measures nominally 0.6 m (18 in.) wide by 2.13 m (84 in.) high. 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 the periphery (both sides) with a dense mastic. The manufacturer's description of the specimen was as follows:

The

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DESCRIPTION OF THE SPECIMEN (con't)

bottoms of the doors had fixed felt seals and adjustable "Super H" closed cell neoprene seals. Each door was hung on two 127 mm (5.0 in.) full mortise cam-lift hinges. Both active door leafs were held in place with positive latching mechanisms at the top and bottom of each leaf, allowing either leaf to be opened. The meeting stile was gasketed with a pair of Pemko 293 Astragals located on the wide sides of the doors. The 14 gauge metal frame was 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. 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 full inspection was not performed in order to preserve the condition of the test specimen. The weight of the two door panels as determined was 111.1 kg (245 lbs) an average of 57.0 kg/m² (11.7 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 20°C (68±2°F) and 63±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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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.

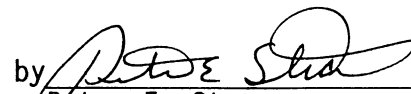
<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>	<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>
100	24	0.69	0	800	46	0.65	4
125	29	0.90	3	1000	46	0.78	5
160	36	0.61	0	1250	48	0.88	4
200	36	0.94	2	1600	51	0.73	1
250	39	1.01	2	2000	53	0.87	0
315	43	0.75	1	2500	53	0.82	0
400	44	0.93	3	3150	54	0.63	0
500	47	0.74	1	4000	55	0.56	0
630	47	0.95	2	5000	57	0.51	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

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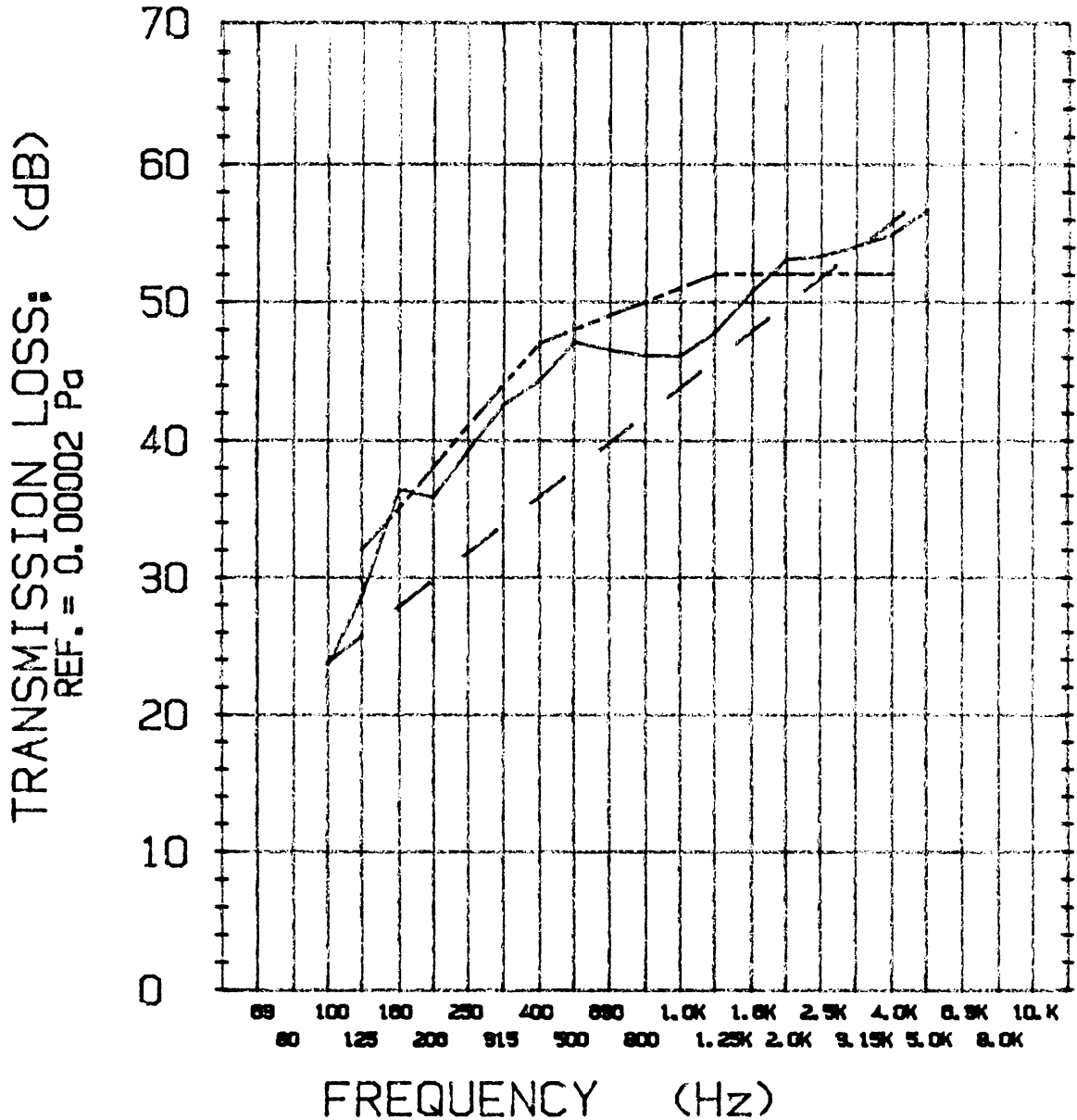
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- . - MASS LAW CONTOUR

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