

RIVERBANK ACOUSTICAL LABORATORIES

1512 BATAVIA AVENUE
GENEVA, ILLINOIS 60134

OF
IIT RESEARCH INSTITUTE

312/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

FOR: Overly Manufacturing Company

Sound Transmission Loss
Test RAL™-TL88-61

ON: Fully Operable Fire Door Model STC488861

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CONDUCTED: 23 February 1988

TEST METHOD

Unless otherwise designated, the measurements reported below were made with all facilities and procedures in explicit conformity with the ASTM Designations E90-85 and E413-73 (Reapproved 1980), as well as other pertinent standards. Riverbank Acoustical Laboratories has been accredited by the U.S. Department of Commerce, National Bureau of Standards under the National Voluntary Laboratory Accreditation Program (NVLAP) for this test procedure. A description of the measuring technique is available separately. The serial number of the measuring microphone was 792729.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as a fully operable Fire Door Model STC488861. The overall dimensions of the specimen as measured were nominally 91.4 cm (36 in.) wide by 2.13 m (84 in.) high and 4.4 cm (1.75 in.) thick. The specimen was placed directly in an 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 frame contained adjustable "H" seals on the jambs and head, and the door had a 4.4 cm (1.75 in.) thick adjustable "H" seal on the bottom. The door was hung on two improved cam-lift pivots and contained an operable heavy duty cylindrical lockset. The lock cavity and cover plate area were packed with dense mastic. A visual inspection verified the manufacturer's description of the specimen. A manufacturer's description and detailed drawing file number 0202, page 2 of 2 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 its product. The weight of the door panel as determined was 94.3 kg (208 lbs) an average of 48.4 kg/m² (9.9 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°F) and 50% 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 E90-85.

<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	0.39	0	800	51	0.34	0
125	25	0.33	7	1000	51	0.28	0
160	28	0.33	7	1250	53	0.21	0
200	32	0.33	6	1600	55	0.20	0
250	37	0.38	4	2000	58	0.21	0
315	41	0.35	3	2500	60	0.19	0
400	45	0.38	2	3150	59	0.16	0
500	50	0.37	0	4000	55	0.12	0
630	51	0.33	0	5000	55	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 Diane C. Perrone Reviewed by John W. Kopec
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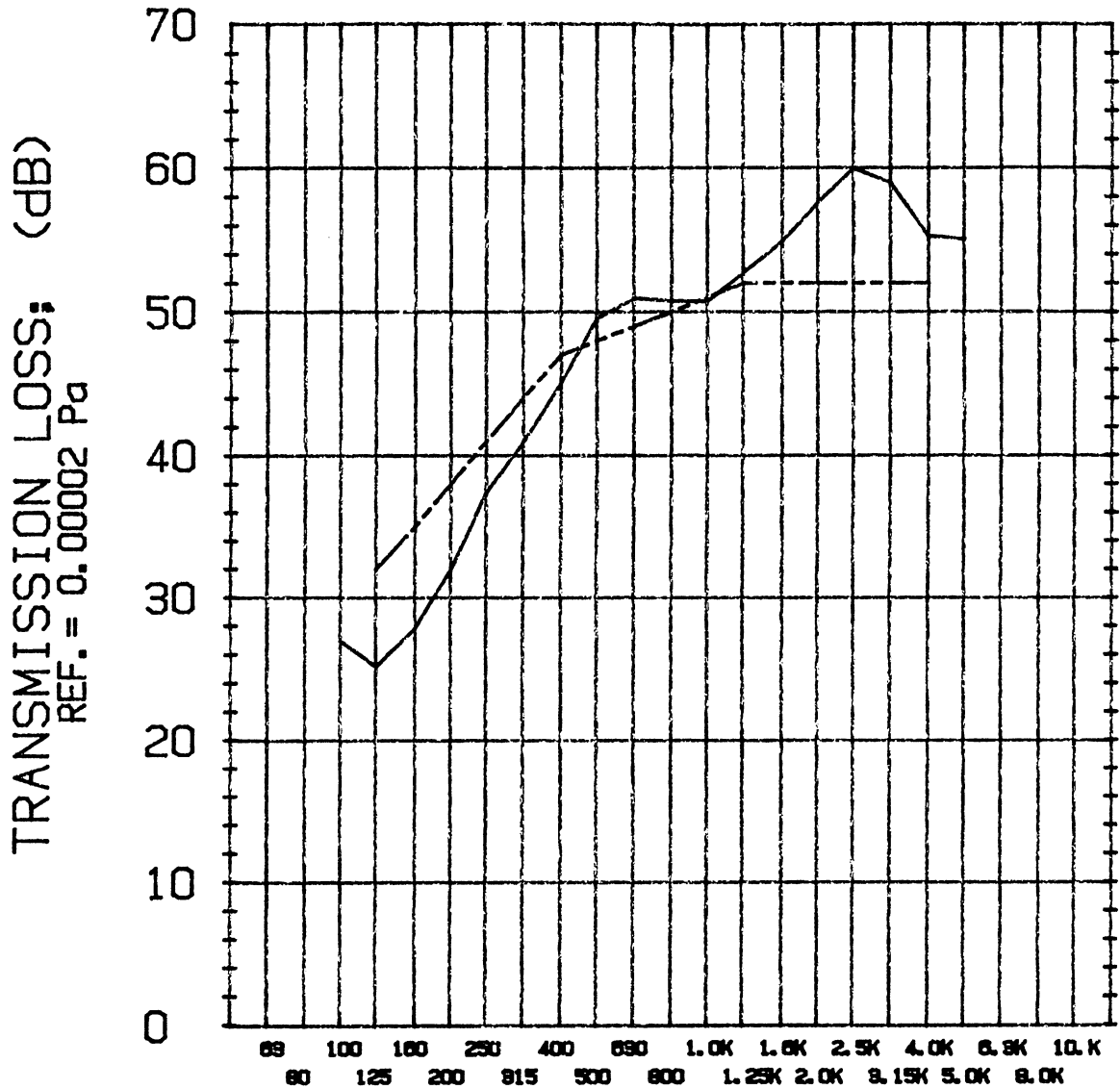
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FREQUENCY (Hz)

— TRANSMISSION LOSS

----- SOUND TRANSMISSION CLASS CONTOUR

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