

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™-TL85-102

ON: A Fully Operable Sliding
Door Model STC5185102

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CONDUCTED: 14 May 1985

TEST METHOD

Unless otherwise designated, the measurements reported below were made with all facilities and procedures in explicit conformity with the American Society for Testing and Materials Designations E90-83 and E413-73, as well as other pertinent standards. Riverbank Acoustical Laboratories has been accredited by 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 consisted of a frame with a flush stainless steel sill, an overhead track assembly, and a sliding door/panel assembly. The door was fully operable and was designated by the manufacturer as Model STC5185102. The overall dimensions of the door panel were 1.38 m (54.25 in.) wide by 2.35 m (92.75 in.) high and 12.7 cm (5 in.) thick. An adapter frame was provided by the client to permit installation in the 1.22 m (4 ft) by 2.44 m (8 ft) laboratory test opening. The frame was sealed around the periphery on both sides with a dense mastic. The door/panel lapped the frame at the jambs and head and was located in the receiving room of the laboratory test opening. The excess (open) area common to both sides was nominally 1.09 m (43 in.) wide by 2.34 m (92 in.) high. The peripheral frame consisted of a four sided structural angle frame with a flush stainless steel plate at the sill to provide a flat sealing surface for the door bottom gaskets. A vee track with case hardened surfaces was mounted overhead. The door/panel was equipped with two roller/hanger assemblies attached with bolts to the face of the door. The sill incorporated Teflon cone shaped rollers. The track, roller/hanger assemblies, and bottom Teflon rollers were designed to simultaneously drop the door in against the head and jambs and down against the sill to create a seal when the door was in a full closed position. The assembly was equipped with a hydraulic ram and hand pump to unseat (open) the door. The frame was equipped with adjustable "H" seals at the head and jambs. The door/panel portion was equipped with adjustable "H" seals at the top and sides and dual super "H" seals at the bottom. The door/panel assembly contained a perimeter metal housing designed to accept the floating (isolated) door panel.

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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DESCRIPTION OF THE SPECIMEN (con't)

A visual inspection verified the manufacturer's description of the specimen. A more detailed description is shown on the manufacturer's detailed drawings. The drawings are maintained on file. The detailed information has been intentionally withheld from this report in order that the manufacturer may control full proprietary rights regarding their product. A full inspection was not performed in order to preserve the condition of the test specimen. The door weighed a nominal 544.32 kg (1200 lbs) an average of 167.48 kg/m² (34.3 lbs/ft²). The transmission area used in the calculations was 2.55 m² (27.47 ft²). The door was opened and closed a minimum of ten times, and the test was conducted with no further adjustments. The room temperature at the time of the test was 22°C (71°F) and 62% relative humidity.

TEST RESULTS

Sound transmission loss values are tabulated at the eighteen standard frequencies. An explanation of the sound transmission class rating, a graphic presentation of the data, and additional information appears on the following pages. The precision of the TL test data are within the limits set by the ASTM Standard E90-83.

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TEST RESULTS (con't)

<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	30	0.18	0	800	50	0.16	3
125	28	0.34	7	1000	51	0.14	3
160	35	0.30	3	1250	53	0.14	2
200	43	0.38	0	1600	54	0.14	1
250	45	0.28	0	2000	56	0.14	0
315	45	0.31	2	2500	60	0.13	0
400	47	0.25	3	3150	60	0.09	0
500	50	0.21	1	4000	60	0.08	0
630	50	0.17	2	5000	60	0.07	0

STC = 51

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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Revised 5/24/88

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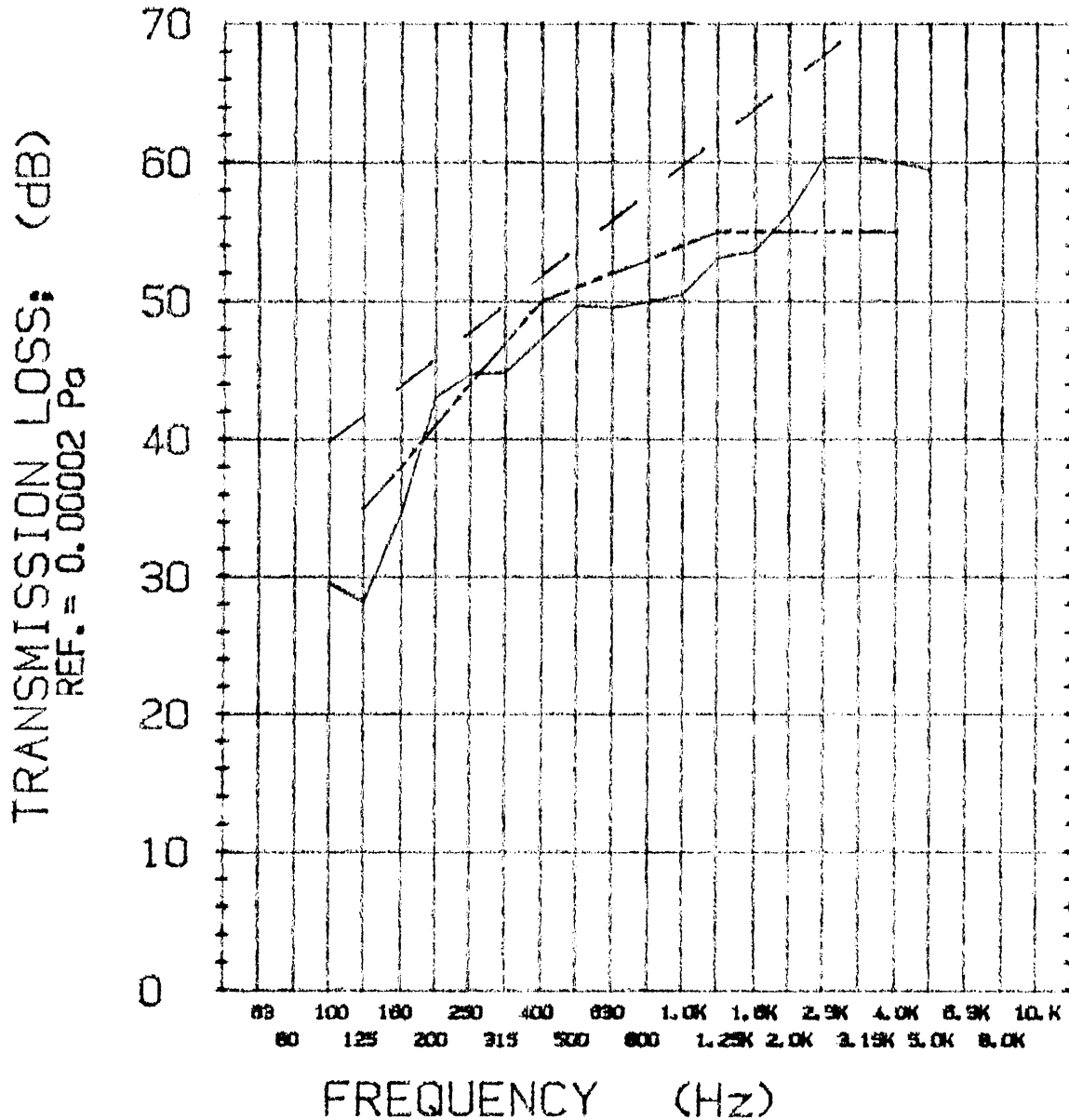
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- TRANSMISSION LOSS
- - - SOUND TRANSMISSION CLASS CONTOUR
- . - MASS LAW CONTOUR

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