

RIVERBANK ACOUSTICAL LABORATORIES

1512 BATAVIA AVENUE
GENEVA, ILLINOIS 60134

OF
IIT RESEARCH INSTITUTE

708/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

FOR: Panelfold, Inc.

Sound Transmission Loss
Test RAL™-TL90-282

ON: Panelfold Steel Gym Wall
Operable Wall

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CONDUCTED: 9 October 1990

TEST METHOD

Unless otherwise designated, the measurements reported below were made with all facilities and procedures in explicit conformity with the ASTM Designations E90-87 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 serial number of the measuring microphone was 951371.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as a fully operable Panelfold Steel Operable Wall comprised of interlocking panels arranged in a flat configuration and supported by an overhead track. The manufacturer's description was as follows: The nominally 76 mm (3.0 in.) thick panels were constructed of steel faces with steel frames and interior sound retarding material in a special impact resistant construction. The abutting edges between panels consisted of interlocking vertical stiles incorporating vertical sound seals. The clearance between the top of the panels and the soffit was closed by a flexible vinyl sweep seal installed on each side of each panel. The clearance between the bottom of the panels and the floor was closed by a mechanical seal in each panel. An expanding jamb provided final closure. The specimen was installed by the manufacturer directly into the laboratory's 2.74 m (9 ft) by 4.27 m (14 ft) wood-lined steel frame. Each panel was nominally 1.22 m (48 in.) wide by 2.60 m (102.5 in.) high including seals. Each panel weighed an average of 93 kg (206 lbs), or 29.4 kg/m² (6.0 lbs/ft²), including trolley. The entire specimen weighed 360 kg (794 lbs). The transmission area used in the calculations was 10.9 m² (117 ft²). A full internal inspection was performed on the test specimen by Riverbank personnel. A detailed description is on file and has been intentionally withheld from this report in order that the manufacturer may control full proprietary rights regarding its product. The operable wall was opened and closed at least the standard prescribed amount of times, and the test was conducted with no further adjustments. The source and receiving room temperatures at the time of the test were 22°C (72±2°F) and 56±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 E90-87.

<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	14	0.12	0	800	49	0.39	0
125	21	0.25	8	1000	49	0.29	0
160	27	0.33	5	1250	49	0.34	0
200	31	0.31	4	1600	49	0.26	0
250	37	0.37	1	2000	50	0.21	0
315	39	0.39	2	2500	50	0.20	0
400	38	0.33	6	3150	51	0.12	0
500	40	0.37	5	4000	53	0.16	0
630	45	0.40	1	5000	54	0.12	0

STC = 45

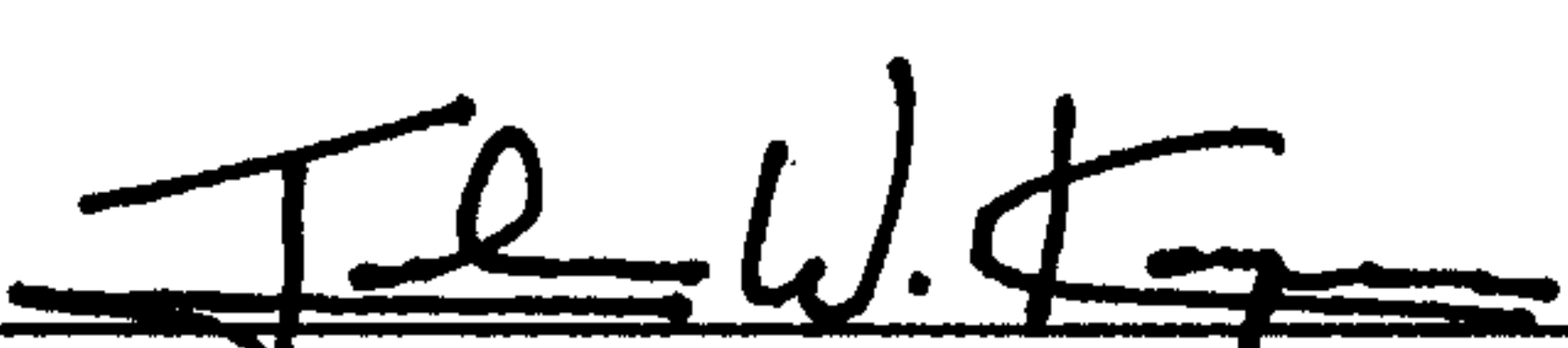
ABBREVIATION INDEX

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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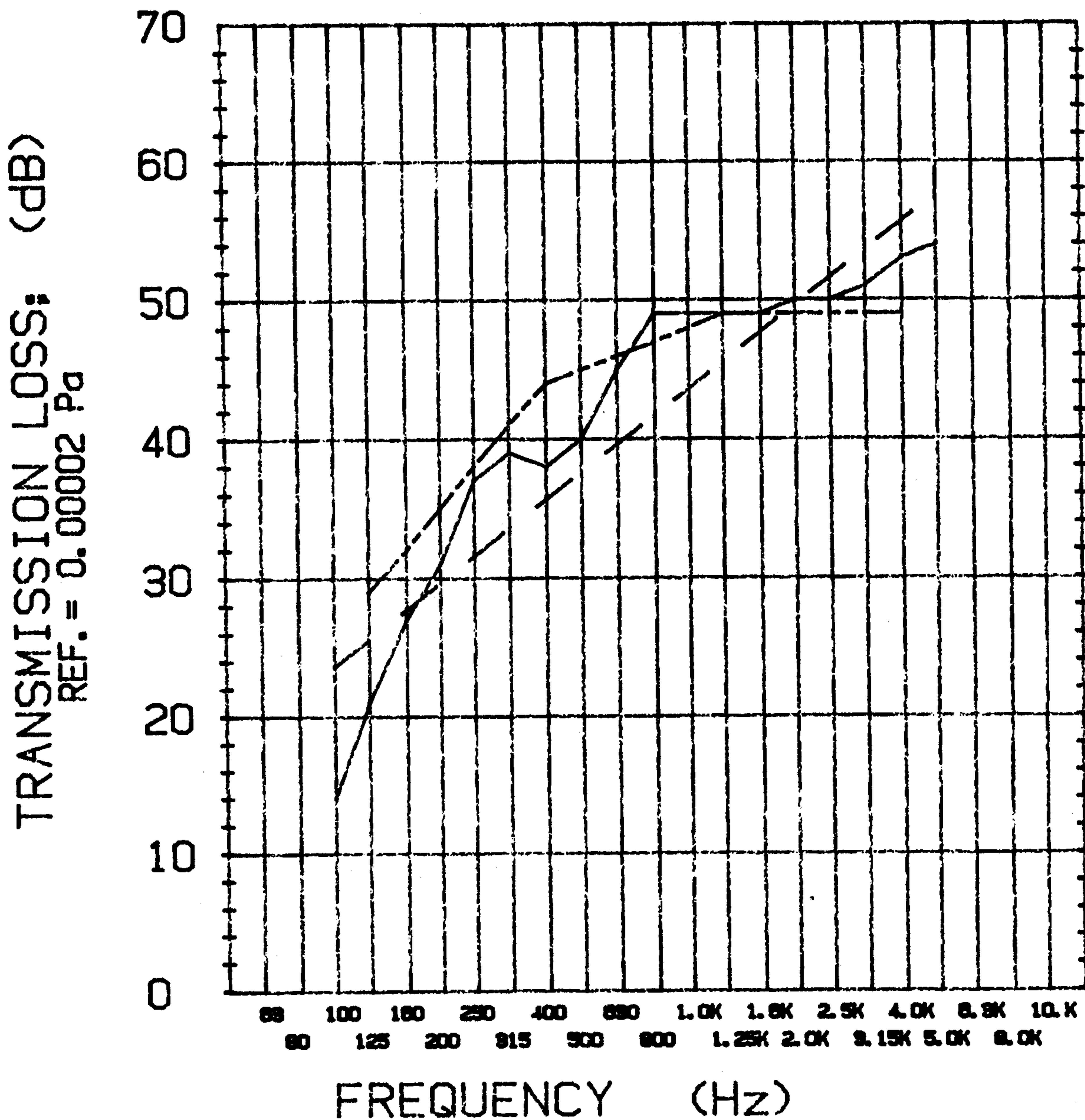
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TRANSMISSION LOSS REPORT

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

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