

# RIVERBANK ACOUSTICAL LABORATORIES

1512 BATAVIA AVENUE  
GENEVA, ILLINOIS 60134

OF  
IIT RESEARCH INSTITUTE

312/232-0104  
FOUNDED 1918 BY  
WALLACE CLEMENT SABINE

## REPORT

FOR: Panelfold, Inc.

Sound Transmission Loss

Test RAL™-TL87-149

ON: Experimental Single Panel

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CONDUCTED: 26 May 1987

### 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 E90-85 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 871403.

### DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as an experimental single panel. The overall dimensions of the specimen as measured were 1.21 m (47.75 in.) wide by 2.43 m (95.75 in.) high and 7.62 cm (3 in.) thick. The specimen was placed directly in the laboratory's 1.22 m (4 ft) by 2.44 m (8 ft) test opening and was sealed on the periphery (both sides) with a dense mastic. The description of the specimen was as follows: A prefabricated composite panel that consisted of a hexagon brand honeycomb core that had 12.7 mm (0.5 in.) cells, faced with 42# Kraft paper. The core was sandwiched between two layers of vinyl laminated 206A steel faces. A visual inspection verified the description of the specimen. The weight of the specimen as measured was 76.0 kg (167.5 lbs) an average of 25.6 kg/m<sup>2</sup> (5.23 lbs/ft<sup>2</sup>). The transmission area used in the calculations was 2.97 m<sup>2</sup> (32 ft<sup>2</sup>). A manufacturer's description is maintained on file. The source and receiving room temperatures at the time of the test were 19°C (66 ± 1°F) and 65 ± 1% 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 appear on the following pages. The precision of the TL test data are within the limits set by the ASTM Standard E90-85.

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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ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.

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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	18	0.40	0	800	32	0.30	3
125	21	0.49	0	1000	32	0.35	4
160	21	0.32	0	1250	33	0.24	4
200	22	0.24	1	1600	32	0.23	5
250	28	0.34	0	2000	34	0.16	3
315	26	0.39	3	2500	45	0.21	0
400	29	0.41	3	3150	55	0.15	0
500	31	0.32	2	4000	60	0.14	0
630	31	0.31	3	5000	62	0.10	0

STC = 33

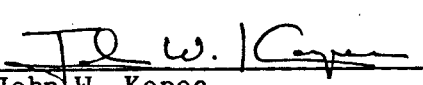
### ABBREVIATION INDEX

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

Reviewed by

  
Peter E. Straus  
Senior Technician

Submitted by

  
John W. Kopec  
Supervisor, Riverbank  
Acoustical Laboratories

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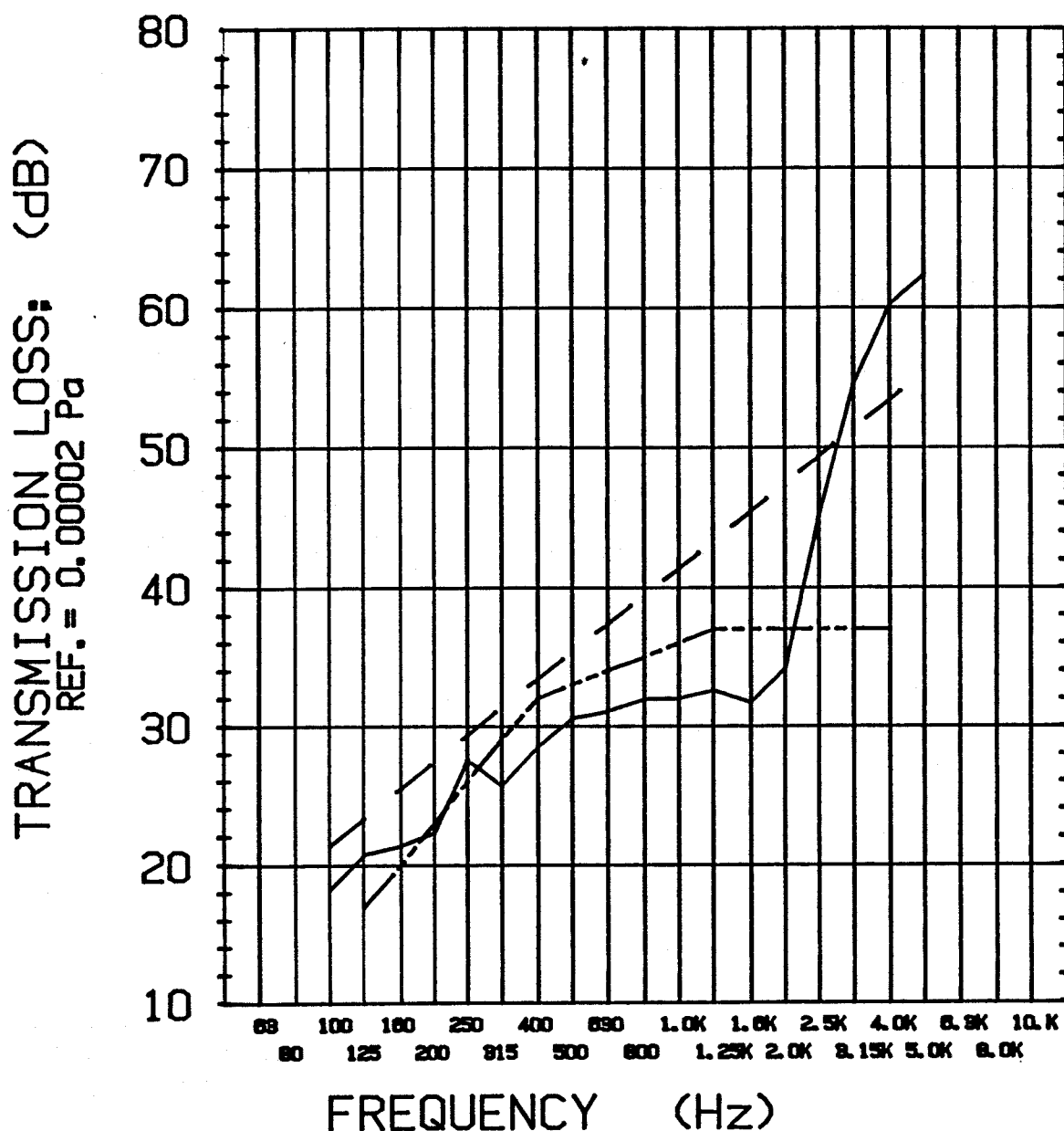
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## REPORT

### TRANSMISSION LOSS REPORT

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

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