

# RIVERBANK ACOUSTICAL LABORATORIES

1512 BATAVIA AVENUE  
GENEVA, ILLINOIS 60134

OF  
IIT RESEARCH INSTITUTE

708/232-0104  
FOUNDED 1918 BY  
WALLACE CLEMENT SABINE

## REPORT

FOR: Rolscreen Company

Sound Transmission Loss  
Test RAL™-TL90-176

ON: Phonic Module Accordion Assembly 45 dB

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CONDUCTED: 19 June 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 microphone used was a Bruel & Kjaer serial number 951371.

### DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as a Phonic Module Accordion Assembly 45 dB. The overall dimensions of the specimen as measured were 4.27 m (168 in.) wide by 2.44 m (96 in.) high and 4.4 cm (1.75 in.) thick. 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. The description of the specimen was as follows: The specimen consisted of an overhead track, headcover board with acoustical sealant, and seven nominally 2.67 m (105.1 in.) high by 98.5 cm (38.8 in.) wide by 4.4 cm (1.75 in.) thick modules. One end module contained a 7.7 cm (3.03 in.) wide wall stanchion. The other end module contained a 13.5 cm (5.3 in.) wide closing post. The closing post contained a handle, end hook, and a spring and clamp array. The closing post inserted into a 8.1 cm (3.2 in.) wide counter wall stanchion (jamb) when the folding partition was fully extended in the closed position. Each module was a composite construction that consisted of four 14 mm (0.55 in.) thick, wood-veneer faced, particle board panels (two on each side) fully lined on the interior with a single layer of sound damping material followed by a single layer of mineral wool. Sweep seals were adhered to the top and bottom of each panel. The two panels on each side were joined together by a flexible center profile configuration. Each module was hung from the overhead track by two adjustable suspension modules (trolleys). Each module contained a bracket and click mechanism that secured the modules together when in the fully extended, closed position. The stack depth was 77.7 cm (30.6 in.). The open (full access) width when the modules were stacked was 3.29 m (129.5 in.). A visual inspection verified the description of the specimen. The weight of the entire assembly as determined was 369 kg (813 lbs) an average of 32 kg/m<sup>2</sup> (6.5 lbs/ft<sup>2</sup>). The transmission area used in the calculations was 11.7 m<sup>2</sup> (126 ft<sup>2</sup>). The specimen was opened and closed at least five times, and the test was conducted with no further adjustments. A manufacturer's detailed drawing is maintained on file. The source and receiving room temperatures at the time of the test were 21°C (70±2°F) and 60±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.

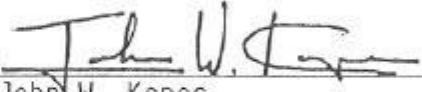
<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>	<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>
100	18	0.23	0	800	46	0.33	1
125	25	0.28	4	1000	46	0.31	2
160	26	0.32	6	1250	48	0.28	1
200	30	0.30	5	1600	49	0.25	0
250	37	0.27	1	2000	47	0.20	2
315	39	0.39	2	2500	47	0.16	2
400	41	0.31	3	3150	49	0.14	0
500	43	0.32	2	4000	52	0.12	0
630	47	0.34	0	5000	54	0.09	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   
Peter E. Straus  
Senior Technician

Reviewed by   
John W. Kopec  
Supervisor, Riverbank  
Acoustical Laboratories

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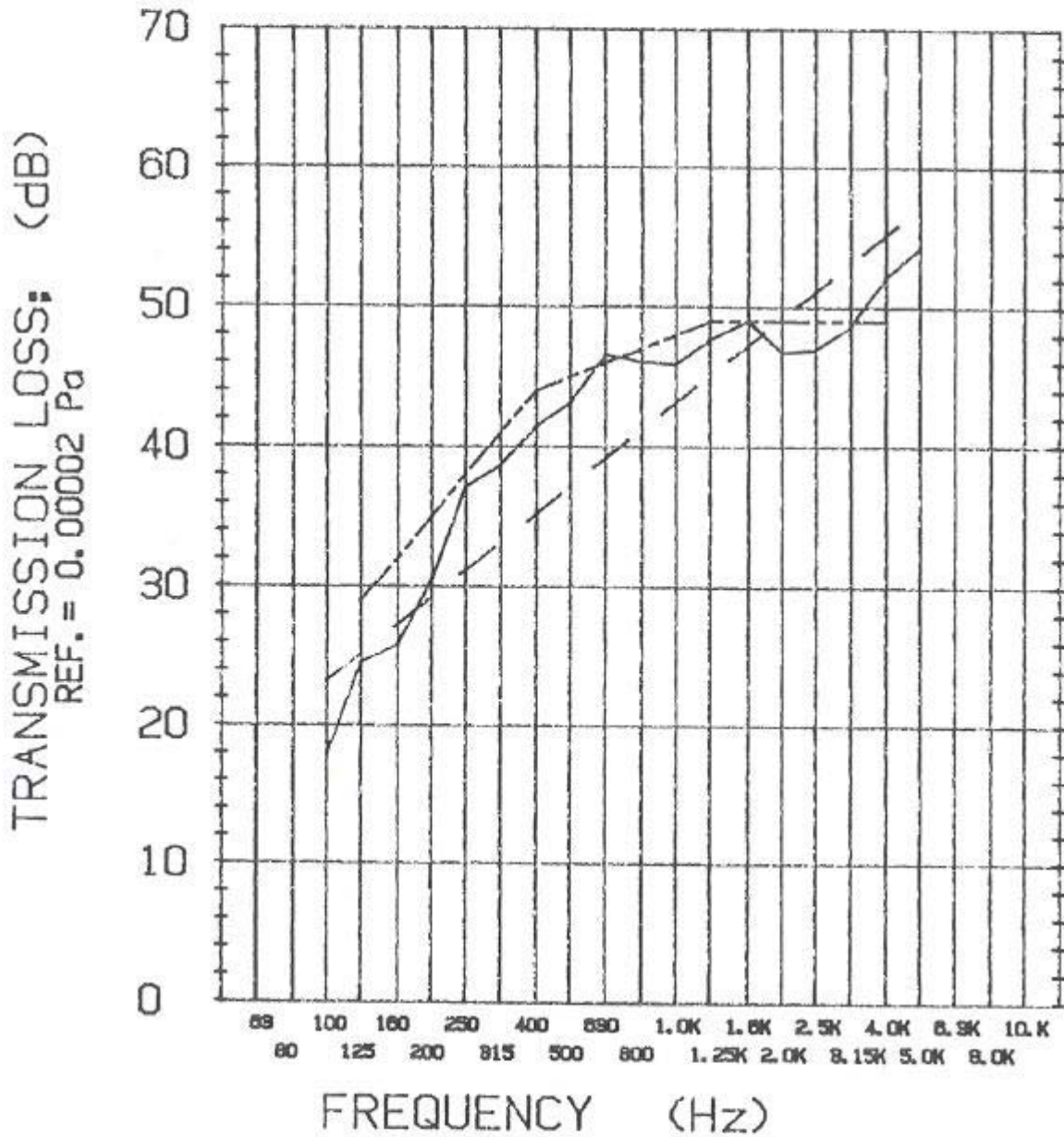
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### TRANSMISSION LOSS REPORT

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

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