

# RIVERBANK ACOUSTICAL LABORATORIES

1512 BATAVIA AVENUE  
GENEVA, ILLINOIS 60134

OF  
IIT RESEARCH INSTITUTE

708/232-0104  
FOUNDED 1918 BY  
WALLACE CLEMENT SABINE

## REPORT

FOR: **Netwell Noise Control**

Sound Transmission Loss  
Test RAL™-TL91-358

ON: Model #QBS-1  
Composite Absorptive/Barrier

Page 1 of 3

CONDUCTED: 24 December 1991

### TEST METHOD

Unless otherwise designated, the measurements reported below were made with all facilities and procedures in explicit conformity with the ASTM Designations E90-90 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 1330828.

### DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as Netwell Noise Control Model QBS-1. The overall dimensions of the specimen as measured were 1.22 m (48.0 in.) wide by 2.44 m (96.5 in.) high and 38.1 mm (1.5 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 manufacturer's description of the specimen was as follows: An absorptive barrier composite that consisted of a 2 lb/SF weighted septum sandwiched between two layers of a quilted fiberglass blanket. An external, visual inspection verified the manufacturer's description of the specimen. The weight of the specimen as measured was 35.8 kg (79 lbs) an average of 11.9 kg/m<sup>2</sup> (2.5 lbs/ft<sup>2</sup>). The transmission area used in the calculations was 3.0 m<sup>2</sup> (32 ft<sup>2</sup>). The source and receiving room temperatures at the time of the test were 21°C (70±2°F) and 55±2% relative humidity.

# RIVERBANK ACOUSTICAL LABORATORIES

1512 BATAVIA AVENUE  
GENEVA, ILLINOIS 60134

OF  
IIT RESEARCH INSTITUTE

708/232-0104  
FOUNDED 1918 BY  
WALLACE CLEMENT SABINE

## REPORT

Netwell Noise Control

RAL™-TL91-358

24 December 1991

Page 2 of 3

### 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 E90-90.

<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	23	0.24	0	800	37	0.24	0
125	19	0.33	0	1000	40	0.19	0
160	20	0.28	0	1250	46	0.21	0
200	20	0.37	3	1600	52	0.17	0
250	22	0.30	4	2000	56	0.16	0
315	21	0.38	8	2500	58	0.16	0
400	25	0.34	7	3150	60	0.13	0
500	28	0.33	5	4000	61	0.13	0
630	33	0.25	1	5000	59	0.08	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 Diane C. Perrone  
Diane C. Perrone  
Experimentalist

Submitted by John W. Kopec  
John W. Kopec  
Supervisor, Riverbank  
Acoustical Laboratories

# RIVERBANK ACOUSTICAL LABORATORIES

1512 BATAVIA AVENUE  
GENEVA, ILLINOIS 60134

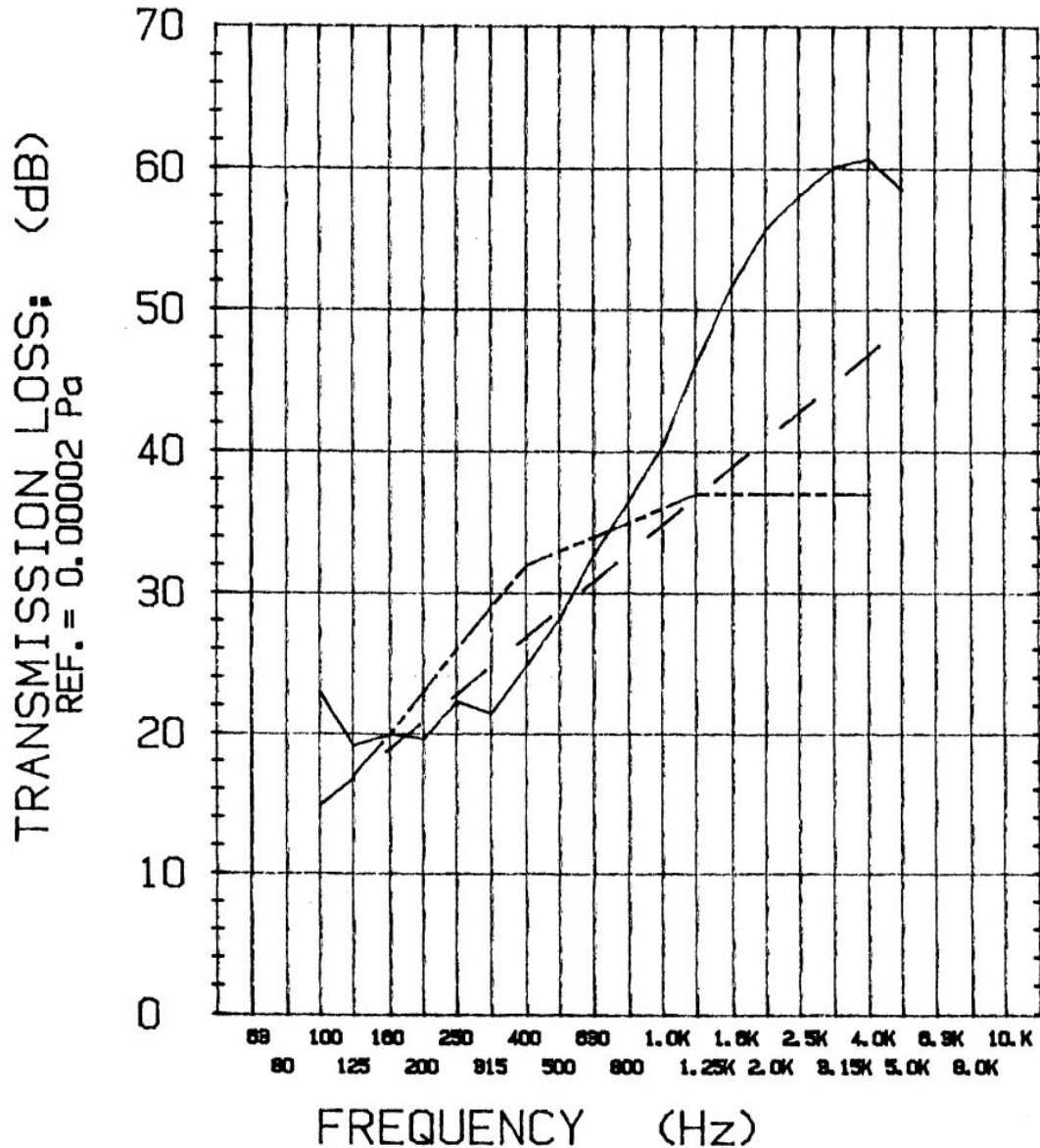
OF  
IIT RESEARCH INSTITUTE

708/232-0104  
FOUNDED 1918 BY  
WALLACE CLEMENT SABINE

## REPORT

### TRANSMISSION LOSS REPORT

RAL-TL91-358 Page 3 of 3



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

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.  
ACCREDITED BY DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY  
ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.  
THE LABORATORY'S ACCREDITATION OR ANY OF ITS TEST REPORTS IN NO WAY CONSTITUTES  
OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.

