RIVERBANK ACOUSTICAL LABORATORIES

OF

IIT RESEARCH INSTITUTE

1512 BATAVIA AVENUE
GENEVA, ILLINOIS 60134

708/232-0104

FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

FOR: Overly Manufacturing Company

Sound Transmission Loss
Test RAL™-TL95-8

ON: Acoustical Vision Light Panel
Model Number STC529508

CONDUCTED: 10 January 1995

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 1330658.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as an acoustical vision light panel Model number STC529508. The overall dimensions of the specimen were 914 mm (36 in.) wide by 2.13 m (84 in.) high and 162 mm (6.375 in.) thick. The specimen was placed directly in the manufacturer's adapter frame and tested in the 1.22 m (4 ft) by 2.44 m (8 ft) test opening. The adapter frame was sealed on the surface faces and periphery (both sides) with a dense mastic. The manufacturer's description of the specimen was as follows: A dual glazed, fixed window unit that consisted of a 54 mm (2.125 in.) and a 6.4 mm (0.25 in.) thick laminated glass array mounted in a composite frame assembly that incorporated neoprene seals with a 14 gauge solid steel jamb, 16 gauge loose outer stops, plus loose stop mud boxes. The vision light assembly was equipped with a dual purging port system to eliminate condensation between the glass. A manufacturer's detailed drawing, File Number II099, page 2 of 7, is maintained on file. At the request of the manufacturer the details of the construction were purposely withheld from this report in order that the manufacturer may control full proprietary rights regarding the product. The weight of the glass as measured was 296.2 kg (653 lbs) an average of 151.9 kg/m^2 (31.2 lbs/ft^2). The total weight of the unit (including 4-sided frame, glass, stops and glazing) was 320.7 kg (707 lbs) an average of 164.5 kg/m^2 (33.67 lbs/ft^2). The transmission area used in the calculations was 1.95 m^2 (21 ft^2). The source and receiving room temperatures at the time of the test were 19°C (67±2°F) and 53±2% relative humidity.

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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 E90-90.

FREQ.	T.L.	C.L.	DEF.	FREQ.	T.L.	C.L.	DEF.
100	38	0.28	0	800	*63	0.31	0
125	*42	0.24	0	1000	64	0.30	0
160	*43	0.22	0	1250	66	0.25	0
200	*45	0.19	0	1600	*68	0.18	0
250	*46	0.26	0	2000	69	0.19	0
315	40	0.30	8	2500	71	0.13	0
400	49	0.34	2	3150	*75	0.10	0
500	54	0.37	0	4000	*78	0.08	0
630	*60	0.35	0	5000	*79	0.07	0

STC = 52

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
* = INDICATES A CORRECTION WAS APPLIED TO THE SPECIMEN TL BECAUSE THE SPECIMEN TL EXCEEDED THE LIMITATIONS OF THE TEST OPENING.

Submitted by _____
John W. Kopec
Laboratory Manager

Tested and Reviewed by _____
Dean Victor
Senior Experimentalist

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