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™-TL92-26

ON: Acoustical Vision Light Panel
Model Number STC549226

CONDUCTED: 17 January 1992

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 792729.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as an acoustical vision light panel Model number STC549226. The overall dimensions of the vision light as measured were nominally 914 mm (36 in.) wide by 2.13 m (84 in.) high and 203 mm (8 in.) deep. The specimen was placed directly in the client'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 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 12.7 mm (0.50 in.) and a 19 mm (0.75 in.) thick laminated glass array mounted in a composite frame assembly that incorporated 12 pcf rockwool, 16 gauge perforated steel, and neoprene seals with a 14 gauge solid steel jamb, 16 gauge long and short outer stops, plus a loose stop mud box. The vision light assembly was equipped with a dual purging port system to eliminate condensation between the glass. A visual inspection verified the manufacturer's description of the specimen. A manufacturer's description and detailed drawing file number 0608, page 8 of 9 are 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 and glazing as calcualted was 165 kg (364 lbs). The total weight of the unit (including 4-sided frame, glass and glazing) was 245 kg (540 lbs) an average of 125.6 kg/m^2 (25.7 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 20°C (68±2°F) and 60±2% relative humidity.

RIVERBANK ACOUSTICAL LABORATORIES

OF

IIT RESEARCH INSTITUTE

1512 BATAVIA AVENUE
GENEVA, ILLINOIS 60134

708/232-0104

FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

Overly Manufacturing Company

RAL™-TL92-26

17 January 1992

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	36	0.33	0	800	54	0.36	2
125	38	0.41	0	1000	55	0.32	2
160	38	0.38	3	1250	57	0.26	1
200	41	0.30	3	1600	60	0.27	0
250	43	0.41	4	2000	61	0.19	0
315	44	0.40	6	2500	63	0.14	0
400	49	0.48	4	3150	65	0.11	0
500	50	0.27	4	4000	67	0.08	0
630	52	0.38	3	5000	67	0.10	0

STC = 54

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

OF
IIT RESEARCH INSTITUTE

1512 BATAVIA AVENUE
GENEVA, ILLINOIS 60134

708/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

TRANSMISSION LOSS REPORT
RAL-TL92-26