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™-TL92-278

ON: Acoustical Vision Light Panel
Model Number STC5592278

CONDUCTED: 15 September 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 1330658.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as an acoustical vision light panel Model number STC5592278. The overall dimensions of the specimen (less adaptor frame) were 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 and was sealed on the periphery (both sides) with a dense mastic. The manufacturer's description of the specimen was as follows: A dual glazed 13 mm (0.5 in.) and 19 mm (0.75 in.) thick laminated light mounted in a composite frame assembly that incorporated zipper gaskets with a 14 gauge solid steel jamb, 16 gauge loose stops, plus loose stop mud plates. 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 detailed drawing file number 0667, page 5 of 13 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 specimen (glass and glazing only) as calculated was 199 kg (438 lbs). The total weight of the unit (including 4-sided frame, glass and glazing) was 224 kg (494 lbs) an average of 93.3 kg/m^2 (18.8 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 24°C (75±2°F) and 58±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	41	0.37	0	800	56	0.30	1
125	40	0.47	0	1000	57	0.33	1
160	41	0.43	1	1250	58	0.30	1
200	42	0.46	3	1600	60	0.21	0
250	43	0.41	5	2000	62	0.18	0
315	46	0.39	5	2500	66	0.17	0
400	50	0.39	4	3150	68	0.12	0
500	51	0.35	4	4000	70	0.09	0
630	53	0.34	3	5000	71	0.10	0

STC = 55

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

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