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™-TL92-288

ON: Fully Operable Dual Glazed
Swinging Door Model STC5192288

CONDUCTED: 16 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 a fully operable dual glazed swinging door, Model STC5192288. The overall dimensions of the door panel were nominally 914 mm (36 in.) wide by 2.13 m (84 in.) high and 48 mm (1.875 in.) thick. 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 the periphery (both sides) with a dense mastic. The manufacturer's description of the specimen was as follows:

The bottom of the door had a fixed felt seal and an adjustable "Super H" closed cell neoprene seal. The dual glazed portion of the door consisted of a nominal 0.2 m^2 (300 $in.^2$) view window. The view window had a 6.4 mm (0.25 in.) thick wire glass light followed by a 25.4 mm (1.0 in.) airspace and then a 9.5 mm (0.375 in.) thick laminated glass light. The

DESCRIPTION OF THE SPECIMEN (con't)

lights were contained by an 11 gauge loose stop and 16 gauge steel frame with neoprene gasketing. A manufacturer's description and detailed drawing file number 0667, page 9 of 13 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 door panel as determined was 113 kg (249 lbs) an average of 57.9 kg/m^2 (11.9 lbs/ft^2). The transmission area used in the calculations was 1.95 m^2 (21 ft^2). The specimen was opened and closed at least five times, and the test was conducted with no further adjustments. The source and receiving room temperatures at the time of the test were 24°C (75±2°F) and 60±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	28	0.33	0	800	53	0.29	0
125	29	0.37	6	1000	53	0.29	1
160	32	0.29	6	1250	54	0.22	1
200	39	0.52	2	1600	56	0.22	0
250	42	0.47	2	2000	58	0.20	0
315	43	0.41	4	2500	60	0.15	0
400	46	0.38	4	3150	59	0.15	0
500	47	0.30	4	4000	59	0.10	0
630	52	0.35	0	5000	61	0.07	0

STC = 51

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 _____ Reviewed by _____

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