RIVERBANK ACOUSTICAL LABORATORIES

OF

IIT RESEARCH INSTITUTE

1512 BATAVIA AVENUE
GENEVA, ILLINOIS 60134

312/232-0104

FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

FOR: Overly Manufacturing Company

Sound Transmission Loss
Test RAL™-TL88-125

ON: Fully Operable Swinging
Door Model STC4788125

CONDUCTED: 10 May 1988

TEST METHOD

Unless otherwise designated, the measurements reported below were made with all facilities and procedures in explicit conformity with the ASTM Designations E90-85 and E413-73 (Reapproved 1980), as well as other pertinent standards. Riverbank Acoustical Laboratories has been accredited by the U.S. Department of Commerce, National Bureau of Standards under the National Voluntary Laboratory Accreditation Program (NVLAP) for this test procedure. A description of the measuring technique is available separately. The serial number of the measuring microphone was 792729.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as Model STC4788125 which consisted of a metal frame and fully operable swinging door. The overall dimensions of the door as measured were 90.2 cm (35.5 in.) wide by 2.12 m (83.63 in.) high and 4.4 cm (1.75 in.) thick. The specimen was placed directly in an 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:

The bottom of the door had a fixed felt seal and an adjustable "Super H" closed cell neoprene seal. The 14 gauge metal frame was equipped with a single magnetic seal arrangement at the head and jambs. The frame also had 4.75 mm (0.187 in.) steel hinge reinforcements w/mud boxes. The door was hung on two 12.7 cm (5.0 in.) full mortise cam lift hinges and was equipped with a functional heavy duty cylindrical lockset. A visual inspection verified the manufacturer's description of the specimen. A manufacturer's description and detailed drawing file number 0236, page 4 of 5 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. A full inspection was not performed in order to preserve the condition of the test specimen. The door weighed 118 kg (260 lbs) an average of 60.5 kg/m^2 (12.4

DESCRIPTION OF THE SPECIMEN (con't)

lbs/ft^2). The transmission area used in the calculations was 1.95 m^2 (21 ft^2). The open area was 86.4 cm (34 in.) wide by 2.11 m (83 in.) high. 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 18°C (65°F) and 56% relative humidity.

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 E90-85.

FREQ	T.L.	C.L.	DEF.	FREQ	T.L.	C.L.	DEF.
100	27	0.40	0	800	49	0.29	0
125	30	0.38	1	1000	44	0.27	6
160	32	0.32	2	1250	43	0.26	8
200	36	0.39	1	1600	45	0.19	6
250	42	0.50	0	2000	49	0.16	2
315	45	0.44	0	2500	53	0.16	0
400	48	0.37	0	3150	56	0.13	0
500	51	0.31	0	4000	56	0.11	0
630	50	0.32	0	5000	53	0.08	0

STC = 47

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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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