Riverbank

Riverbank Acoustical
LABORATORIES

Founded in 1918 by Wallace Clement Sabine

a world leader in

architectural acoustical testing

RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

Alion Science and Technology

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

TEST REPORT

FOR: Blue Angel Paint & Coatings Ltd.
Homer Glen, IL

Sound Transmission Loss Test
RAL™-TL10-313

ON: GP #2 Coated Gypsum (Source Side) on Insulated Steel Stud Wall Assembly with 5/8" Gypsum Board on Both Sides

CONDUCTED: 17 September 2010

TEST METHOD

Unless otherwise designated, the measurements reported below were made with all facilities and procedures in explicit conformity with the ASTM Designations E90-09 and E413-04, 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 (NVLAP Lab Code: 100227-0). A description of the measuring technique is available separately.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the client as GP #2 Coated Gypsum (source side) on insulated steel stud wall assembly with 5/8" gypsum board on both sides. The overall dimensions of the specimen as measured were nominally 1.21 m (47.75 in.) wide by 2.43 m (95.75 in.) high and 127 mm (5 in.) thick. The specimen was placed directly in the laboratory's 1.22 m (4 ft) by 2.44 m (8 ft) test opening and was sealed on the periphery (both sides) with dense mastic.

The description of the specimen was as follows: The wall was constructed of a 25 gauge steel stud frame assembly with a layer of 16 mm (0.625 in.) thick gypsum board screw attached to both sides of the frame at nominal 305 mm (12 in.) on center. The studs were attached to the top and bottom runners spaced on 610 mm (24 in.) centers. The cavities between the studs were filled with R13 blow in cellulose insulation measuring 56.3 kg/m^3 (3.5 lbs/ft^3). The coating was identified as GP2. A visual inspection verified the description of the specimen.

The weight of the specimen as measured was 93.9 kg (207 lbs.), an average of 31.8 kg/m^2 (6.5 lbs/ft^2). The transmission area used in the calculations was 3 m^2 (32 ft^2). The source and receiving room temperatures at the time of the test were 24°C (75±1°F) and 52±2% relative humidity. The source and receive reverberation room volumes were 178 m^3 (6,298 ft^3) and 140 m^3 (4,929 ft^3), respectively.

RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

Alion Science and Technology

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

TEST REPORT

Blue Angel Paint & Coatings Ltd. RAL™-TL10-313

17 September 2010

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 is within the limits set by the ASTM Standard E90-09.

FREQ.	T.L.	C.L.	DEF.	FREQ.	T.L.	C.L.	DEF.
100	25	0.43		800	53	0.15	1
125	32	0.49	4	1000	54	0.14	1
160	37	0.81	2	1250	54	0.10	2
200	39	0.36	3	1600	55	0.11	1
250	44	0.52	1	2000	53	0.11	3
315	46	0.31	2	2500	53	0.10	3
400	49	0.33	2	3150	54	0.07	2
500	50	0.16	2	4000	54	0.07	2
630	52	0.21	1	5000	55	0.06	

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 (SUM OF DEF = 32)
STC = SOUND TRANSMISSION CLASS

Tested by _____ Approved by _____

Marc Sciaky
Experimentalist

David L. Moyer
Laboratory Manager

RIVERBANK ACOUSTICAL LABORATORIES

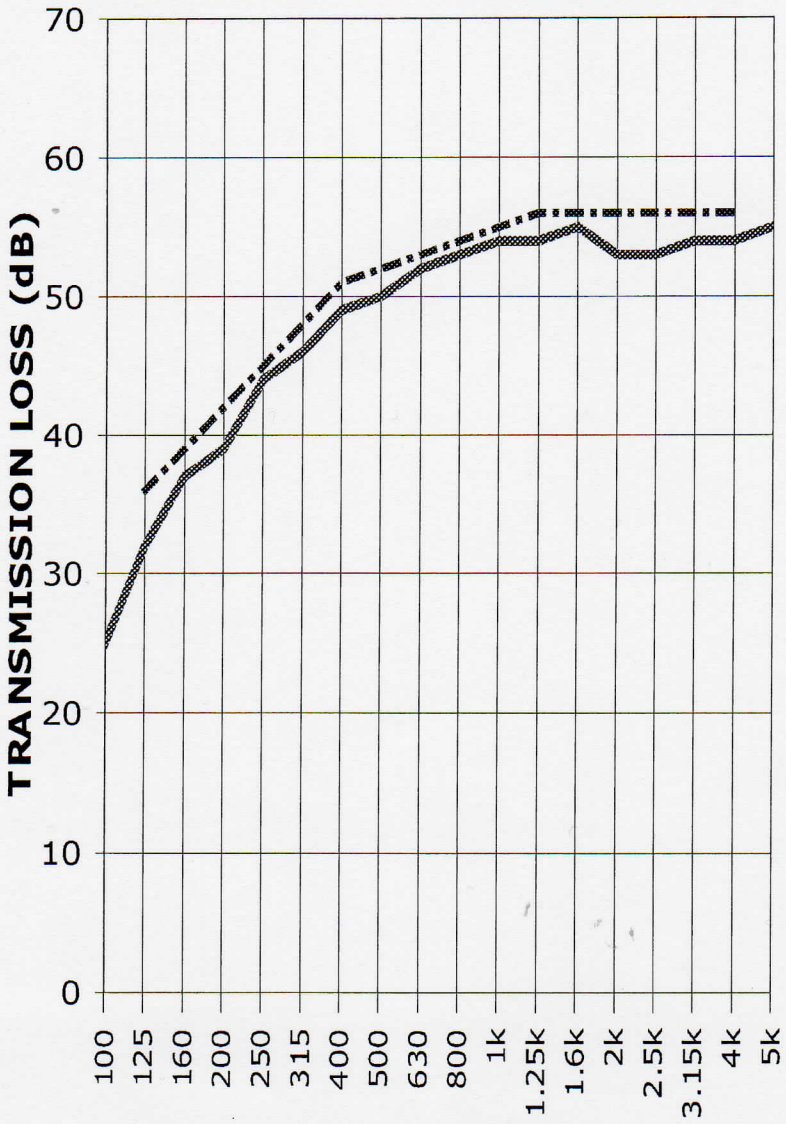
1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

Alion Science and Technology

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

TEST REPORT

SOUND TRANSMISSION REPORT
RAL - TL10-313

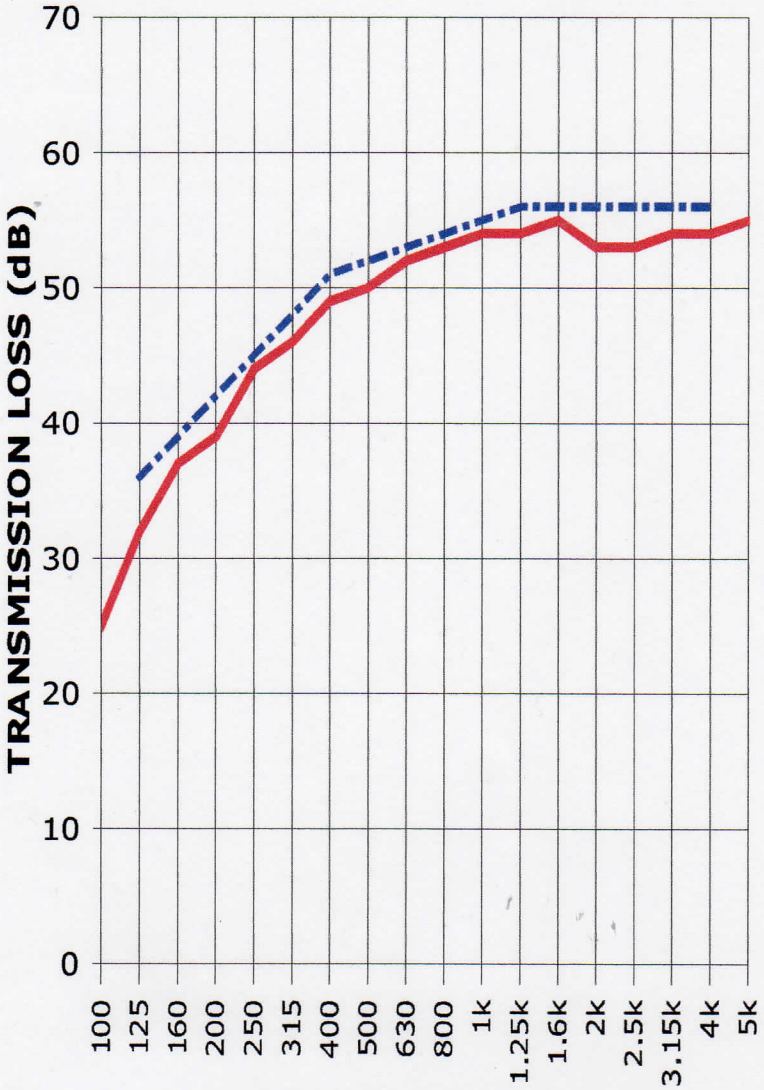


STC = 52

TRANSMISSION LOSS
SOUND TRANSMISSION LOSS CONTOUR

RIVERBANK ACOUSTICAL LABORATORIES

SOUND TRANSMISSION REPORT
RAL - TL10-313



STC = 52

TRANSMISSION LOSS
SOUND TRANSMISSION LOSS CONTOUR