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LOFTWALL, INC.
ACOUSTICAL PERFORMANCE TEST REPORT

SCOPE OF WORK
ASTM C423 SOUND ABSORPTION TESTING ON TEMPO WALL, PET PANELS

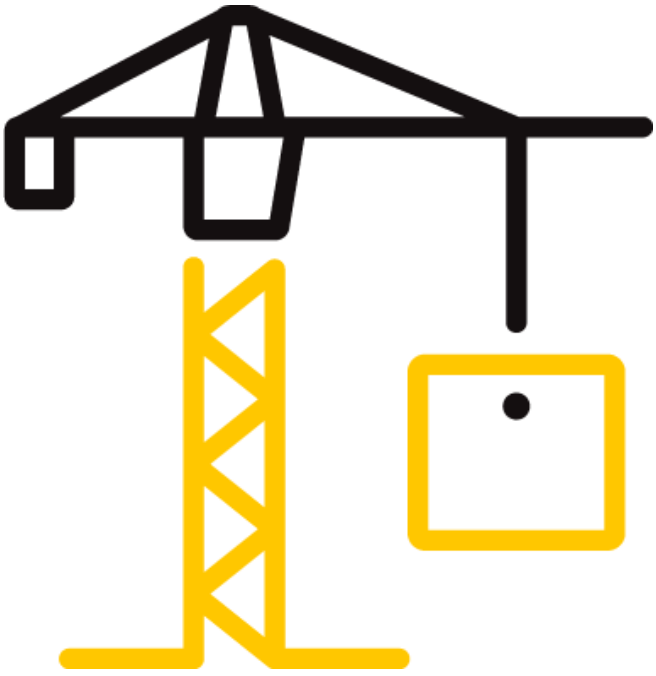
REPORT NUMBER
Q3731.01-113-11-R0

TEST DATE
09/05/23

ISSUE DATE
10/19/23

PAGES
10

DOCUMENT CONTROL NUMBER
RT-R-AMER-Test-2755 (09/05/23)



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TEST REPORT FOR LOFTWALL, INC.
Report No.: Q3731.01-113-11-R0
Date: 10/19/23

REPORT ISSUED TO

LOFTWALL, INC.
2617 North Great Southwest Parkway, Suite 100
Grand Prairie, Texas 75050

SECTION 1

SCOPE

Architectural Testing, Inc. (an Intertek company) dba Intertek Building & Construction (B&C) was contracted by LOFTwall, Inc. to perform a sound absorption test. Results obtained are tested values and were secured by using the designated test methods. The complete test data is included herein. The client provided the test specimen. All measurements were conducted in the HT test chambers at Intertek B&C located in York, Pennsylvania.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. Intertek B&C will service this report for the entire test record retention period. The test record retention period ends four years after the test date. Test records, such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained for the entire test record retention period.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule, also called "Shared Risk approach," of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

For INTERTEK B&C:

COMPLETED BY:	Zachary P. Golden	**REVIEWED BY:**	Kurt A. Golden
TITLE:	Technician Team Leader Acoustical Testing	**TITLE:**	Manager Acoustical Testing
SIGNATURE:	Digitally Signed by: Zachary Golden	**SIGNATURE:**	Digitally Signed by: Kurt A. Golden
DATE:	10/19/23	**DATE:**	10/19/23

ZPG:jmcs

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SECTION 2
SUMMARY OF TEST RESULTS

SERIES/MODEL	Tempo Wall							
SAMPLE TYPE	PET Panels, 3/8" Thick							
MOUNTING TYPE	Type F-20							
DATA FILE NO.	**1/3 OCTAVE SOUND ABSORPTION COEFFICIENTS AT THE OCTAVE BAND FREQUENCIES**						**NRC**	**SAA**
	125	**250**	**500**	**1000**	**2000**	**4000**		
Q3731.01A	0.05	0.23	0.66	1.00	1.07	1.12	0.75	0.75

SECTION 3
TEST METHODS

The specimens were evaluated in accordance with the following:

ASTM C423-23, *Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method*

ASTM E795-23, *Standard Practices for Mounting Test Specimens During Sound Absorption Tests*

SECTION 4
SPECIMEN MOUNTING

For the Type F-20 mounting, the test specimen was placed on 38.1 mm by 1066.8 by 20 mm (1-1/2" by 42" by 3/4") wood furring strips supplied by the client, 20 mm above the floor of the reverberation room with the absorptive side facing the sound field.

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SECTION 5
EQUIPMENT

The equipment listed below meets the requirements of the test methods stated in Section 3 of this report.

INSTRUMENT	MANUFACTURER	MODEL	DESCRIPTION	ASSET #	CAL DATE
2-Channel Analog Input	National Instruments	NI-9250	2-Channel Analog Input	INT02674	09/22
2-Channel Analog Input	National Instruments	NI-9250	2-Channel Analog Input	INT02675	09/22
2-Channel Analog Input	National Instruments	NI-9250	2-Channel Analog Input	INT02676	09/22
Receive Room Microphone	PCB Piezotronics	378C20	Microphone and Preamplifier	65969	03/23
Receive Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64908	01/23
Receive Room Microphone	PCB Piezotronics	378C20	Microphone and Preamplifier	INT03436	04/23
Receive Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64907	01/23
Receive Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	63745	07/23
Receive Room Environmental Indicator	Comet	T7510	Receive Room	64914	03/23
Microphone Calibrator	Norsonic	Nor 1255	Acoustical Calibrator	INT03566	06/23

**- Note: The calibration frequency for this equipment is every two years per the manufacturer's recommendation.*

TEST CHAMBER

	VOLUME	DESCRIPTION
RECEIVE ROOM	234 m^3	Rotating vane and stationary diffusers Temperature and humidity controlled Isolation pads under the floor

SECTION 6
LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Zachary P. Golden	Intertek B&C

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SECTION 7
TEST PROCEDURE

The sensitivity of the microphones was checked before measurements were conducted. Empty room sound absorption measurements were conducted before the specimen was installed. Full room sound absorption measurements were conducted after the specimen was installed.

For the empty and full room measurements, ten decay measurements were conducted at each of the five microphone positions. Data was obtained at 1/3 octave band frequencies ranging from 80 to 5000 hertz. The air temperature and relative humidity conditions were monitored and recorded during the measurements.

Intertek B&C will store samples of test specimens for four years.

SECTION 8
TEST CALCULATIONS

The Sound Absorption Coefficient is the full room absorption minus the empty room absorption divided by the area of the sample in m^2. The Sound Absorption Coefficient is dimensionless.

The Noise Reduction Coefficient (NRC) rating is the arithmetic average of the sound absorption coefficients at 250, 500, 1000 and 2000 hertz. The average is rounded to the nearest multiple of 0.05.

The Sound Absorption Average (SAA) rating is the arithmetic average of the sound absorption coefficients at frequencies ranging from 200 to 2500 hertz. The average is rounded to the nearest multiple of 0.01.

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SECTION 9
TEST SPECIMEN DESCRIPTION

SERIES/MODEL	Tempo Wall
SAMPLE TYPE	PET Panels, 3/8" Thick
MOUNTING TYPE	Type F-20

Forty, 1.20 m by 0.30 m (47-1/4" by 12"), panels were arranged in layers to produce the 2.40 m by 3.00 m (94-1/2" by 118-1/4") test specimen.

The total weight of the specimen was 34.44 kg (75.92 lbs).

DESCRIPTION	THICKNESS	DENSITY	WEIGHT
Single PET Panel, 3/8" Thick	9.40 mm 0.37"	212.77 kg/m^3 13.30 lbs/ft^3	2.00 kg/m^2 0.41 lbs/ft^2

Photographs are included in Section 11.

The client did not supply a report drawing of the test specimen.

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SECTION 10

TEST RESULTS

Q3731.01A DATA

TECHNICIAN	Zachary P. Golden
SPECIMEN AREA	7.21 m²
MOUNTING TYPE	F-20

	EMPTY	FULL
TEMP °C	22.3	22.1
RH %	51	49
B.P. (mb)	999	999

FREQ (Hz)	EMPTY ROOM ABSORPTION (m^2)	FULL ROOM ABSORPTION (m^2)	ABSORPTION COEFFICIENT
80	6.25	6.07	0.00
100	6.41	6.48	0.01
125	5.70	6.06	0.05
160	5.03	5.68	0.09
200	5.39	6.38	0.14
250	5.71	7.34	0.23
315	5.35	7.91	0.36
400	5.15	8.74	0.50
500	5.05	9.84	0.66
630	5.01	11.14	0.85
800	5.26	12.07	0.94
1000	5.14	12.33	1.00
1250	5.32	12.89	1.05
1600	5.36	13.18	1.08
2000	5.31	12.99	1.07
2500	5.69	13.85	1.13
3150	6.33	14.17	1.09
4000	6.88	14.94	1.12
5000	7.30	15.66	1.16

NRC RATING	0.75	*(Noise Reduction Coefficient)*
SAA RATING	0.75	*(Sound Absorption Average)*

Notes:

1) The NRC rating is the arithmetic average of the sound absorption coefficients at 250, 500, 1000, and 2000 hertz. The average is rounded to the nearest multiple of 0.05.
2) The SAA rating is the arithmetic average of the sound absorption coefficients at the frequencies ranging from 200 to 2500 hertz. The average is rounded to the nearest multiple of 0.01.

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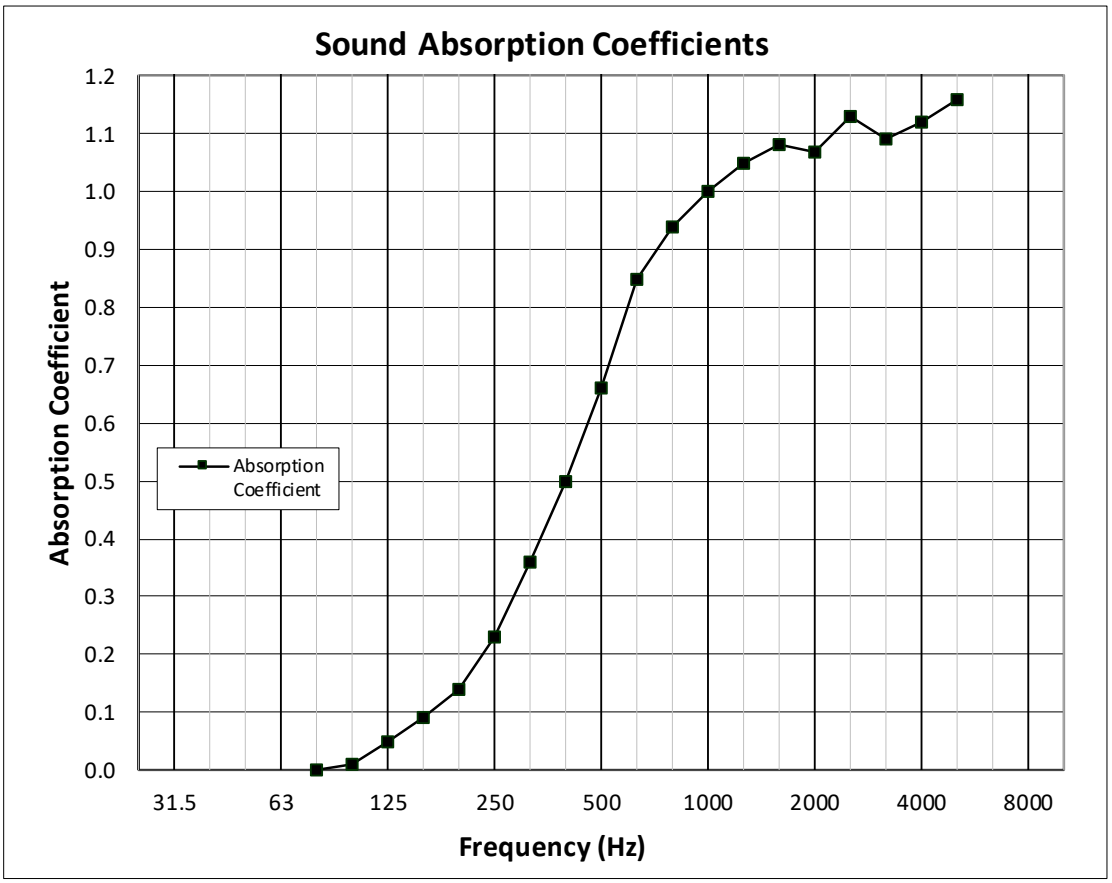
Q3731.01A GRAPH



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SECTION 11
PHOTOGRAPHS

Photo No. 1
View of Installed Test Specimen

Photo No. 2
Side View of Test Specimen

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SECTION 12
REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	10/19/23	N/A	Original Report Issue