intertek
Total Quality. Assured.

LOFTWALL, INC.
ACOUSTICAL PERFORMANCE TEST REPORT

SCOPE OF WORK
ASTM C423 SOUND ABSORPTION TESTING ON PET BAFFLES

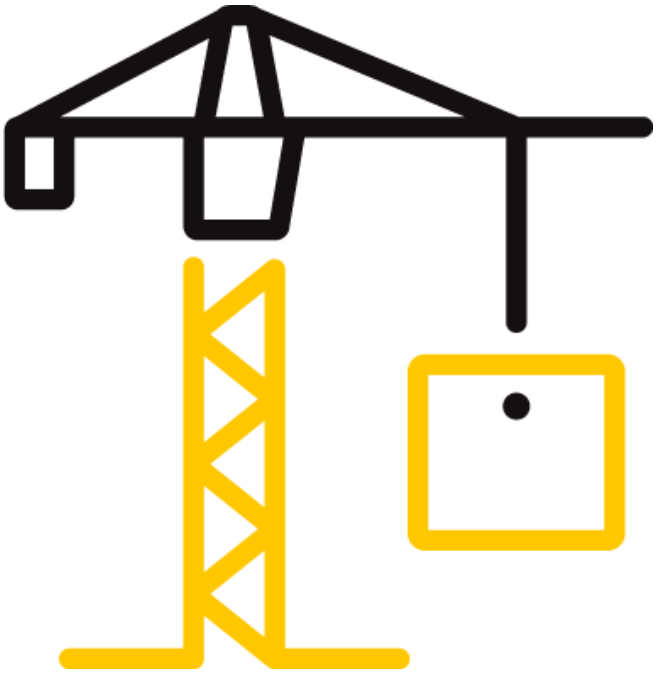
REPORT NUMBER
P7986.01-113-11-R0

TEST DATES
04/05/23; 04/06/23

ISSUE DATE
05/11/23

PAGES
44

DOCUMENT CONTROL NUMBER
RT-R-AMER-Test-2755 (04/03/23)



130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

REPORT ISSUED TO

LOFTWALL, INC.
2617 N Great SW 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:	05/11/23	**DATE:**	05/11/23

ZPG:jmcs

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

SECTION 2
SUMMARY OF TEST RESULTS

SERIES/MODEL	Layer
SAMPLE TYPE	PET Baffles

MOUNTING TYPE	Type J					
DATA FILE NO.	**1/3 OCTAVE SOUND ABSORPTION M^2/UNIT AT THE OCTAVE BAND FREQUENCIES**					
	125	**250**	**500**	**1000**	**2000**	**4000**
P7986.01A	0.560	0.710	1.050	1.300	1.430	1.570

CALCULATION (METHOD 1)	Area Footprint encompassing the 8-panel configuration*							
MOUNTING TYPE	Type J (Method 1 – Area Footprint)							
DATA FILE NO.	**1/3 OCTAVE APPARENT SOUND ABSORPTION COEFFICIENTS AT THE OCTAVE BAND FREQUENCIES***						**APPARENT***	
	125	**250**	**500**	**1000**	**2000**	**4000**	**NRC**	**SAA**
P7986.01A	0.65	0.82	1.22	1.51	1.66	1.82	1.30	1.33

CALCULATION (METHOD 3)	One Surface Area using the 8-panel configuration**							
MOUNTING TYPE	Type J (Method 3 – One Surface Area)							
DATA FILE NO.	**1/3 OCTAVE APPARENT SOUND ABSORPTION COEFFICIENTS AT THE OCTAVE BAND FREQUENCIES***						**APPARENT***	
	125	**250**	**500**	**1000**	**2000**	**4000**	**NRC**	**SAA**
P7986.01A	0.76	0.95	1.41	1.75	1.93	2.11	1.50	1.54

/ See Notes in Section 9*

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

SERIES/MODEL	Thin
SAMPLE TYPE	PET Baffles

MOUNTING TYPE	Type J					
DATA FILE NO.	**1/3 OCTAVE SOUND ABSORPTION M^2/UNIT AT THE OCTAVE BAND FREQUENCIES**					
	125	**250**	**500**	**1000**	**2000**	**4000**
P7986.01B1	0.080	0.140	0.210	0.330	0.460	0.530

CALCULATION (METHOD 1)	Area Footprint encompassing the 12-panel configuration*							
MOUNTING TYPE	Type J (Method 1 – Area Footprint)							
DATA FILE NO.	**1/3 OCTAVE APPARENT SOUND ABSORPTION COEFFICIENTS AT THE OCTAVE BAND FREQUENCIES***						**APPARENT***	
	125	**250**	**500**	**1000**	**2000**	**4000**	**NRC**	**SAA**
P7986.01B1	0.14	0.23	0.36	0.56	0.77	0.90	0.50	0.49

CALCULATION (METHOD 3)	One Surface Area using the 12-panel configuration**							
MOUNTING TYPE	Type J (Method 3 – One Surface Area)							
DATA FILE NO.	**1/3 OCTAVE APPARENT SOUND ABSORPTION COEFFICIENTS AT THE OCTAVE BAND FREQUENCIES***						**APPARENT***	
	125	**250**	**500**	**1000**	**2000**	**4000**	**NRC**	**SAA**
P7986.01B1	0.23	0.37	0.57	0.90	1.23	1.44	0.75	0.79

/ See Notes in Section 9*

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

SERIES/MODEL	Pocket
SAMPLE TYPE	PET Baffles

MOUNTING TYPE	Type J					
DATA FILE NO.	**1/3 OCTAVE SOUND ABSORPTION M^2/UNIT AT THE OCTAVE BAND FREQUENCIES**					
	125	**250**	**500**	**1000**	**2000**	**4000**
P7986.01C	0.240	0.450	0.670	1.050	1.220	1.200

CALCULATION (METHOD 1)	Area Footprint encompassing the 8-panel configuration*							
MOUNTING TYPE	Type J (Method 1 – Area Footprint)							
DATA FILE NO.	**1/3 OCTAVE APPARENT SOUND ABSORPTION COEFFICIENTS AT THE OCTAVE BAND FREQUENCIES***						**APPARENT***	
	125	**250**	**500**	**1000**	**2000**	**4000**	**NRC**	**SAA**
P7986.01C	0.25	0.46	0.68	1.07	1.25	1.23	0.85	0.88

CALCULATION (METHOD 3)	One Surface Area using the 8-panel configuration**							
MOUNTING TYPE	Type J (Method 3 – One Surface Area)							
DATA FILE NO.	**1/3 OCTAVE APPARENT SOUND ABSORPTION COEFFICIENTS AT THE OCTAVE BAND FREQUENCIES***						**APPARENT***	
	125	**250**	**500**	**1000**	**2000**	**4000**	**NRC**	**SAA**
P7986.01C	0.32	0.61	0.90	1.41	1.64	1.62	1.15	1.15

/ See Notes in Section 9*

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

SERIES/MODEL	Thicc
SAMPLE TYPE	PET Baffles

MOUNTING TYPE	Type J					
DATA FILE NO.	**1/3 OCTAVE SOUND ABSORPTION M^2/UNIT AT THE OCTAVE BAND FREQUENCIES**					
	125	**250**	**500**	**1000**	**2000**	**4000**
P7986.01D	0.300	0.520	0.750	1.110	1.150	1.210

CALCULATION (METHOD 1)	Area Footprint encompassing the 8-panel configuration*							
MOUNTING TYPE	Type J (Method 1 – Area Footprint)							
DATA FILE NO.	**1/3 OCTAVE APPARENT SOUND ABSORPTION COEFFICIENTS AT THE OCTAVE BAND FREQUENCIES***						**APPARENT***	
	125	**250**	**500**	**1000**	**2000**	**4000**	**NRC**	**SAA**
P7986.01D	0.31	0.54	0.78	1.16	1.20	1.26	0.90	0.93

CALCULATION (METHOD 3)	One Surface Area using the 8-panel configuration**							
MOUNTING TYPE	Type J (Method 3 – One Surface Area)							
DATA FILE NO.	**1/3 OCTAVE APPARENT SOUND ABSORPTION COEFFICIENTS AT THE OCTAVE BAND FREQUENCIES***						**APPARENT***	
	125	**250**	**500**	**1000**	**2000**	**4000**	**NRC**	**SAA**
P7986.01D	0.40	0.70	1.01	1.50	1.54	1.63	1.20	1.20

/ See Notes in Section 9*

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

SECTION 3
TEST METHODS

The specimens were evaluated in accordance with the following:

ASTM C423-22, *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

OPTION P7986.01A
For Type J mounting, the flat panels were suspended 0.61 m (24") off the floor vertically in four parallel rows with two panels per row, which were spaced 304.8 mm (12"). The panels were spaced 279.4 mm (11") between each row. Panels were suspended using wire.

OPTION P7986.01B1
For Type J mounting, the flat panels were suspended 0.61 m (24") off the floor vertically in six parallel rows with two panels per row, which were spaced 304.8 mm (12"). The panels were spaced 361.95 mm (14-1/4") between each row. Panels were suspended using wire.

OPTION P7986.01C
For Type J mounting, the flat panels were suspended 0.61 m (24") off the floor vertically in four parallel rows with two panels per row, which were spaced 304.8 mm (12"). The panels were spaced 575.82 mm (22-43/64") between each row. Panels were suspended using wire.

OPTION P7986.01D
For Type J mounting, the flat panels were suspended 0.61 m (24") off the floor vertically in four parallel rows with two panels per row, which were spaced 304.8 mm (12"). The panels were spaced 539.75 mm (21-1/4") between each row. Panels were suspended using wire.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

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	PBC Piezotronics	378B20	Microphone and Preamplifier	64908	01/23
Receive Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64902	10/22
Receive Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64903	08/22
Receive Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64907	01/23
Receive Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64911	10/22
Receive Room Environmental Indicator	Comet	T7510	Receive Room	64914	03/23
Microphone Calibrator	Norsonic	1251	Acoustical Calibrator	Y002919	04/22

**- 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

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

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

TYPE J (M^2/UNIT CALCULATION)
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.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

SECTION 9
MODIFIED TEST CALCULAITONSN

AREA FOOTPRINT ENCOMPASSING THE 12-PANEL AND 8-PANEL CONFIGURATION CALCULATION (Method 1)

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 the frequencies ranging from 200 to 2500 hertz. The average is rounded to the nearest multiple of 0.01.

The area used in the calculation was comprised from the 12-panel configuration of hanging panels Option P7986.01B1 was 1.98 m by 2.74 (78" by 108"); the area used in the calculation was comprised from the 8-panel configuration of hanging panels Options P7986.01A, P7986.01C, and P7986.01D wasv1.98 m by 2.74 m (78" by 108"), plus an additional perimeter area to the overall footprint. The additional perimeter area was comprised of the size of the space between the panels along the length and the size of the space between the panels along the width.

$$S' = (l + l_1) \times (w + w_1)$$

Where:
S’ = area of projected ceiling surface attributed to the test specimen, m^2
l = the measured length of the object array, in meters
l_1 = the space between objects in the array along the length, in meters
w = the measured width of the object array, in meters
w_1 = the space between objects in the array along the width, in meters

Drawings of the additional area used are included in Section 13.

***Note**: ASTM is currently working on the **Area Footprint Encompassing the Panel Configuration Calculation (Method 1)** using the area calculation for NRC and SAA for hanging spaced baffles, but it has not been approved yet to date. The results should not be used as comparison to specimens that were tested in a single rectangular configuration. The results will be considered as the apparent noise reduction coefficient (NRC) rating and Sound Absorption Average (SAA).*

The Apparent Absorption Coefficients -and therefore Apparent Single Number Ratings- are highly dependent on the exact sample shape, size, SPACING, and projected test surface area present in the test and subsequent calculations. Changes to any of these parameters will dramatically change the presented values. These presented results are valid ONLY for the specific configuration present in this test.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

AREA OF ONE LARGE FACE PER OBJECT CONFIGURATION CALCULATION (Method 3)

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 the frequencies ranging from 200 to 2500 hertz. The average is rounded to the nearest multiple of 0.01.

The area used in the calculation was comprised from the 8-panel or 12-panel configurations of hanging panels was 5.9 m^2 (64 ft^2), and 4.5 m^2 (48 ft^2), respectively.

Calculate Apparent Sound Absorption Coefficients as follows:

$$\alpha' = (A_2 - A_1)/S'$$

Where:
α' = Apparent Absorption Coefficient of test specimen, no units,
A_1 = absorption of the empty reverberation room, m^2 and
A_2 = absorption of the room after the specimen has been installed, m^2.
S' = area of projected ceiling surface attributed to the test specimen, m^2

Drawings of the additional area used are included in Section 13.

***Note**: The **Area of One Large Face Per Object Configuration Calculation (Method 3)** using the area calculation for NRC and SAA for hanging spaced baffles has not been approved to date. The results should not be used as comparison to specimens that were tested in a single rectangular configuration. The results will be considered as the apparent noise reduction coefficient (NRC) rating and Sound Absorption Average (SAA).*

The Apparent Absorption Coefficients -and therefore Apparent Single Number Ratings- are highly dependent on the exact sample shape, size, SPACING, and projected test surface area present in the test and subsequent calculations. Changes to any of these parameters will dramatically change the presented values. These presented results are valid ONLY for the specific configuration present in this test.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

SECTION 10
TEST SPECIMEN DESCRIPTION

OPTION P7986.01A

SERIES/MODEL	Layer
SAMPLE TYPE	PET Baffles
MOUNTING TYPE	Type J

Eight, 0.61 m by 1.22 m (24" by 48"), panels were arranged to produce the test specimen. The total weight of the specimen was 39.9 kg (88 lbs). The depth of each assembled panel was 11-1/4".

DESCRIPTION	THICKNESS OF MATERIAL	DENSITY	WEIGHT
PET	9.1 mm 0.36"	219.78 kg/m^3 13.67 lbs/ft^3	2.0 kg/m^2 0.41 lbs/ft^2

OPTION P7986.01B1

SERIES/MODEL	Thin
SAMPLE TYPE	PET Baffles
MOUNTING TYPE	Type J

Twelve, 0.30 m by 1.22 m (12" by 48"), panels were arranged to produce the test specimen. The total weight of the specimen was 5.4 kg (12 lbs). The depth of each assembled panel was 1-1/2".

MATERIAL DESCRIPTION	THICKNESS OF MATERIAL	DENSITY	WEIGHT
PET	9.1 mm 0.36"	219.78 kg/m^3 13.67 lbs/ft^3	2.0 kg/m^2 0.41 lbs/ft^2

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

OPTION P7986.01C

SERIES/MODEL	Pocket
SAMPLE TYPE	PET Baffles
MOUNTING TYPE	Type J

Eight, 0.61 m by 1.22 m (24" by 48"), panels were arranged to produce the test specimen. The total weight of the specimen was 25.4 kg (56 lbs). The depth of each assembled panel was 2-1/2".

MATERIAL DESCRIPTION	THICKNESS OF MATERIAL	DENSITY	WEIGHT
PET	9.1 mm 0.36"	219.78 kg/m^3 13.67 lbs/ft^3	2.0 kg/m^2 0.41 lbs/ft^2

OPTION P7986.01D

SERIES/MODEL	Thicc
SAMPLE TYPE	PET Baffles
MOUNTING TYPE	Type J

Eight, 0.61 m by 1.22 m (24" by 48"), panels were arranged to produce the test specimen. The total weight of the specimen was 25.4 kg (56 lbs). The depth of each assembled panel was 3-1/2".

MATERIAL DESCRIPTION	THICKNESS OF MATERIAL	DENSITY	WEIGHT
PET	9.1 mm 0.36"	219.78 kg/m^3 13.67 lbs/ft^3	2.0 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.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

SECTION 11
TEST RESULTS

P7986.01A DATA

TECHNICIAN	Cody L. French
NO. OF UNITS	8.00
MOUNTING TYPE	J

	EMPTY	**FULL**
TEMP °C	22.1	22.3
RH %	47	47
B.P. (mb)	1000	1000

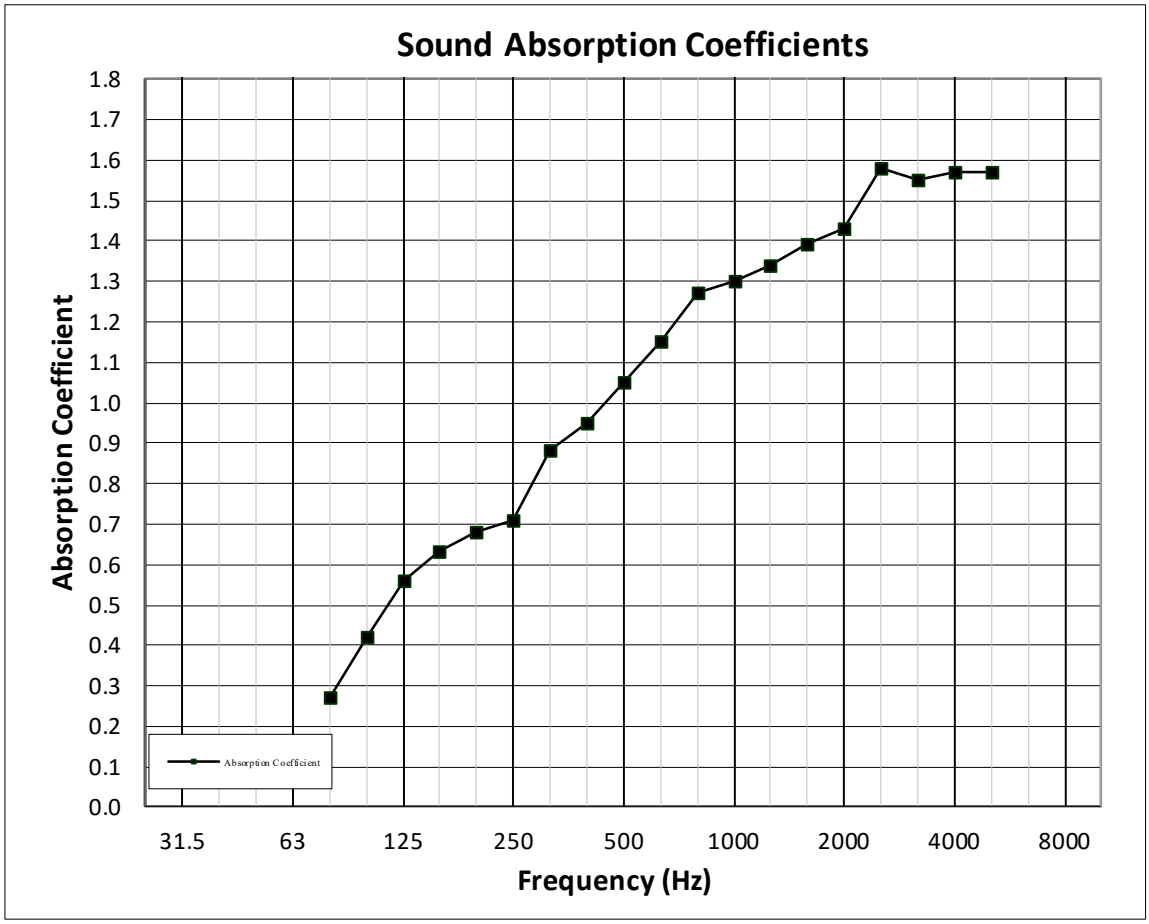
FREQ (Hz)	**EMPTY ROOM ABSORPTION** (m^2)	**FULL ROOM ABSORPTION** (m^2)	**ABSORPTION (M^2 per Unit)**
80	5.64	7.80	0.270
100	6.25	9.64	0.420
125	5.40	9.91	0.560
160	4.71	9.73	0.630
200	5.44	10.85	0.680
250	5.68	11.33	0.710
315	5.30	12.31	0.880
400	5.07	12.68	0.950
500	4.97	13.38	1.050
630	4.90	14.10	1.150
800	5.14	15.27	1.270
1000	5.05	15.46	1.300
1250	5.31	16.05	1.340
1600	5.39	16.50	1.390
2000	5.31	16.75	1.430
2500	5.71	18.31	1.580
3150	6.40	18.82	1.550
4000	7.07	19.62	1.570
5000	7.67	20.20	1.570

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01A GRAPH



intertek
Total Quality. Assured.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.

Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01A DATA (Method 1 – Area Footprint)

TECHNICIAN	Cody L. French	
SPECIMEN AREA	6.89 m²	
MOUNTING TYPE	Type J (Method 1 - area footprint)	
	EMPTY	**FULL**
TEMP °C	22.1	22.3
RH %	47	47
B.P. (mb)	1000	1000

FREQ (Hz)	**EMPTY ROOM ABSORPTION** (m^2)	**FULL ROOM ABSORPTION** (m^2)	**ABSORPTION COEFFICIENT**
80	5.64	7.80	0.31
100	6.25	9.64	0.49
125	5.40	9.91	0.65
160	4.71	9.73	0.73
200	5.44	10.85	0.78
250	5.68	11.33	0.82
315	5.30	12.31	1.02
400	5.07	12.68	1.10
500	4.97	13.38	1.22
630	4.90	14.10	1.34
800	5.14	15.27	1.47
1000	5.05	15.46	1.51
1250	5.31	16.05	1.56
1600	5.39	16.50	1.61
2000	5.31	16.75	1.66
2500	5.71	18.31	1.83
3150	6.40	18.82	1.80
4000	7.07	19.62	1.82
5000	7.67	20.20	1.82

APPARENT NRC RATING	1.30	*(Noise Reduction Coefficient)*
APPARENT SAA RATING	1.33	*(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.

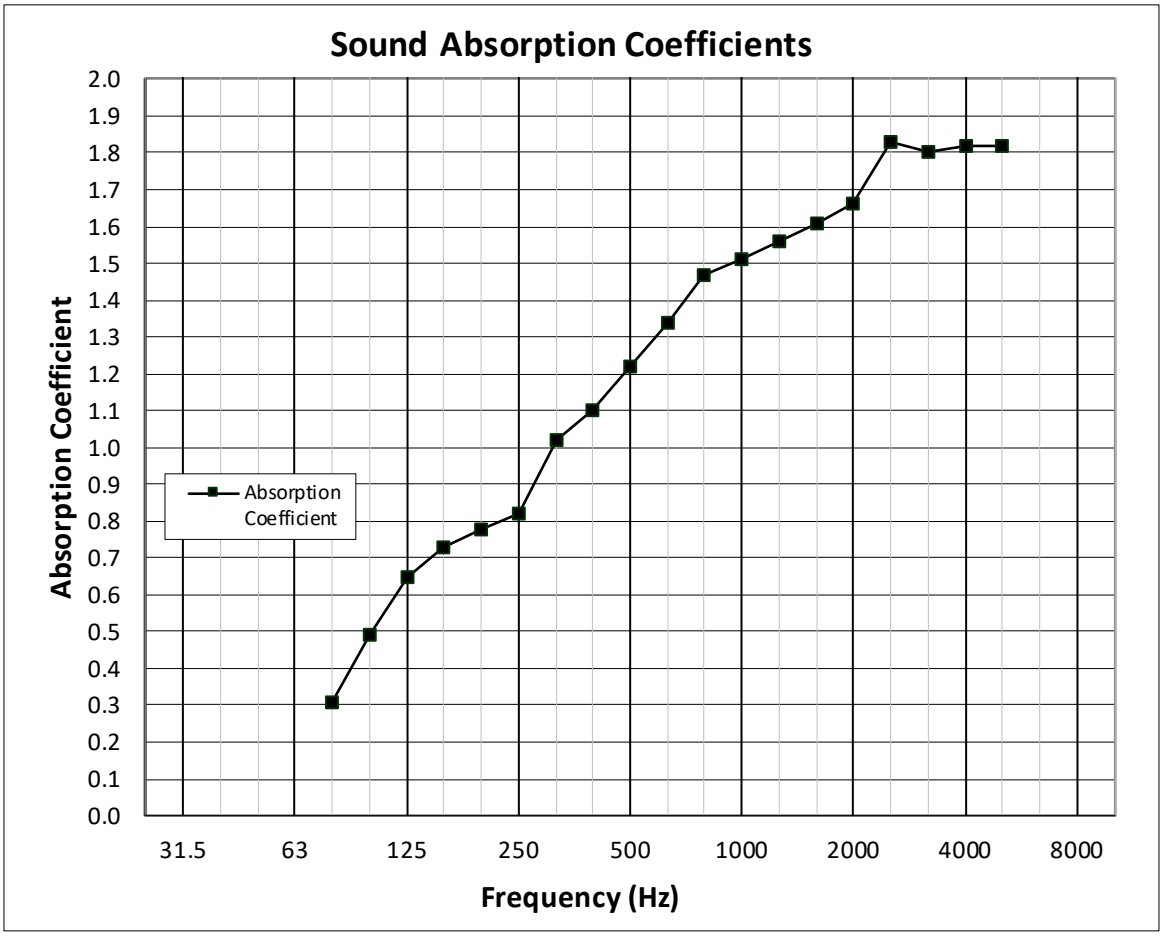
2) The SAA rating is the arithmetic average of the sound absorption coefficients at the frequencies ranging from 200 to 2500 hertz. The average is rounded to the nearest multiple of 0.01.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01A GRAPH (Method 1 – Area Footprint)



intertek
Total Quality. Assured.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.

Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01A DATA (Method 3 – One Surface Area)

TECHNICIAN	Cody L. French	
SPECIMEN AREA	5.95 m²	
MOUNTING TYPE	Type J (Method 3 - one surface area)	
	EMPTY	**FULL**
TEMP °C	22.1	22.3
RH %	47	47
B.P. (mb)	1000	1000

FREQ (Hz)	**EMPTY ROOM ABSORPTION** (m^2)	**FULL ROOM ABSORPTION** (m^2)	**ABSORPTION COEFFICIENT**
80	5.64	7.80	0.36
100	6.25	9.64	0.57
125	5.40	9.91	0.76
160	4.71	9.73	0.84
200	5.44	10.85	0.91
250	5.68	11.33	0.95
315	5.30	12.31	1.18
400	5.07	12.68	1.28
500	4.97	13.38	1.41
630	4.90	14.10	1.55
800	5.14	15.27	1.70
1000	5.05	15.46	1.75
1250	5.31	16.05	1.81
1600	5.39	16.50	1.87
2000	5.31	16.75	1.93
2500	5.71	18.31	2.12
3150	6.40	18.82	2.09
4000	7.07	19.62	2.11
5000	7.67	20.20	2.11

APPARENT NRC RATING	1.50	*(Noise Reduction Coefficient)*
APPARENT SAA RATING	1.54	*(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.

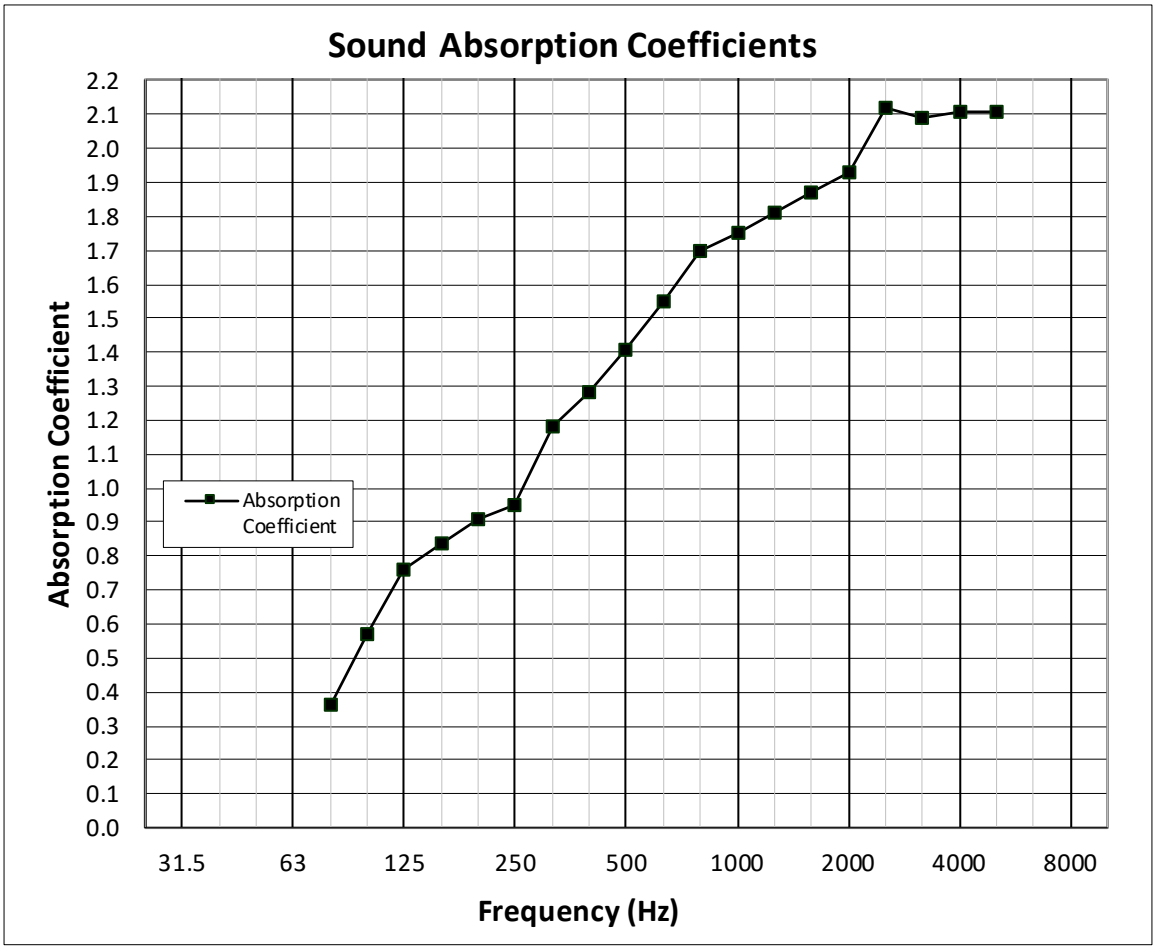
2) The SAA rating is the arithmetic average of the sound absorption coefficients at the frequencies ranging from 200 to 2500 hertz. The average is rounded to the nearest multiple of 0.01.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01A GRAPH (Method 3 – One Surface Area)



intertek
Total Quality. Assured.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.

Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01B1 DATA

TECHNICIAN	Zachary P. Golden	
NO. OF UNITS	12.00	
MOUNTING TYPE	J	
	EMPTY	**FULL**
TEMP °C	21.3	21.7
RH %	47	47
B.P. (mb)	1004	1004

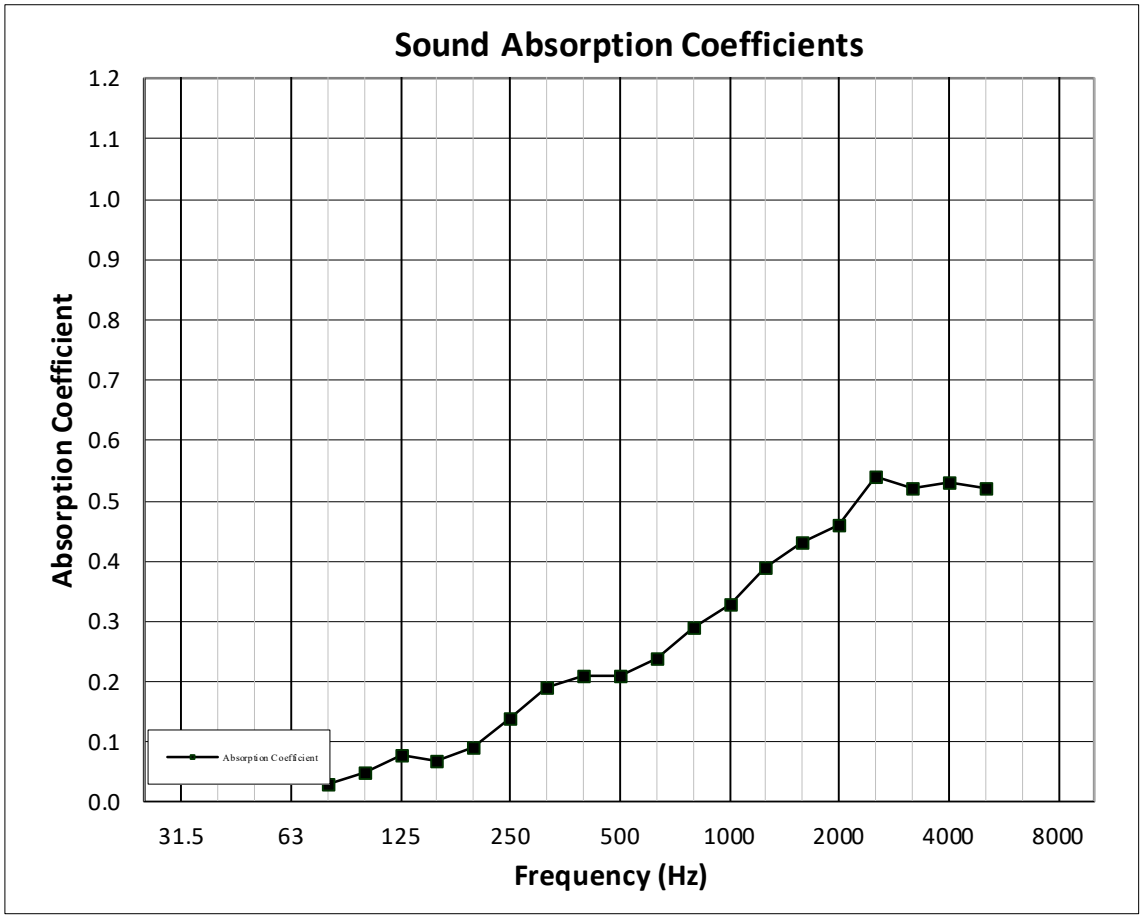
FREQ (Hz)	**EMPTY ROOM ABSORPTION** (m^2)	**FULL ROOM ABSORPTION** (m^2)	**ABSORPTION (M^2 per Unit)**
80	5.69	6.01	0.030
100	6.15	6.70	0.050
125	5.30	6.31	0.080
160	4.72	5.53	0.070
200	5.41	6.54	0.090
250	5.71	7.34	0.140
315	5.34	7.62	0.190
400	5.07	7.56	0.210
500	4.94	7.50	0.210
630	4.88	7.72	0.240
800	5.15	8.62	0.290
1000	5.04	9.04	0.330
1250	5.28	9.94	0.390
1600	5.38	10.57	0.430
2000	5.30	10.80	0.460
2500	5.73	12.18	0.540
3150	6.43	12.71	0.520
4000	7.18	13.59	0.530
5000	7.88	14.11	0.520

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01B1 GRAPH



130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.

Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01B1 DATA (Method 1 – Area Footprint)

TECHNICIAN	Zachary P. Golden	
SPECIMEN AREA	7.14 m²	
MOUNTING TYPE	Type J (Method 1 - Area footprint)	
	EMPTY	**FULL**
TEMP °C	21.3	21.7
RH %	47	47
B.P. (mb)	1004	1004

FREQ (Hz)	**EMPTY ROOM ABSORPTION** (m^2)	**FULL ROOM ABSORPTION** (m^2)	**ABSORPTION COEFFICIENT**
80	5.69	6.01	0.05
100	6.15	6.70	0.08
125	5.30	6.31	0.14
160	4.72	5.53	0.11
200	5.41	6.54	0.16
250	5.71	7.34	0.23
315	5.34	7.62	0.32
400	5.07	7.56	0.35
500	4.94	7.50	0.36
630	4.88	7.72	0.40
800	5.15	8.62	0.49
1000	5.04	9.04	0.56
1250	5.28	9.94	0.65
1600	5.38	10.57	0.73
2000	5.30	10.80	0.77
2500	5.73	12.18	0.90
3150	6.43	12.71	0.88
4000	7.18	13.59	0.90
5000	7.88	14.11	0.87

APPARENT NRC RATING	0.50	*(Noise Reduction Coefficient)*
APPARENT SAA RATING	0.49	*(Sound Absorption Average)*

Notes:

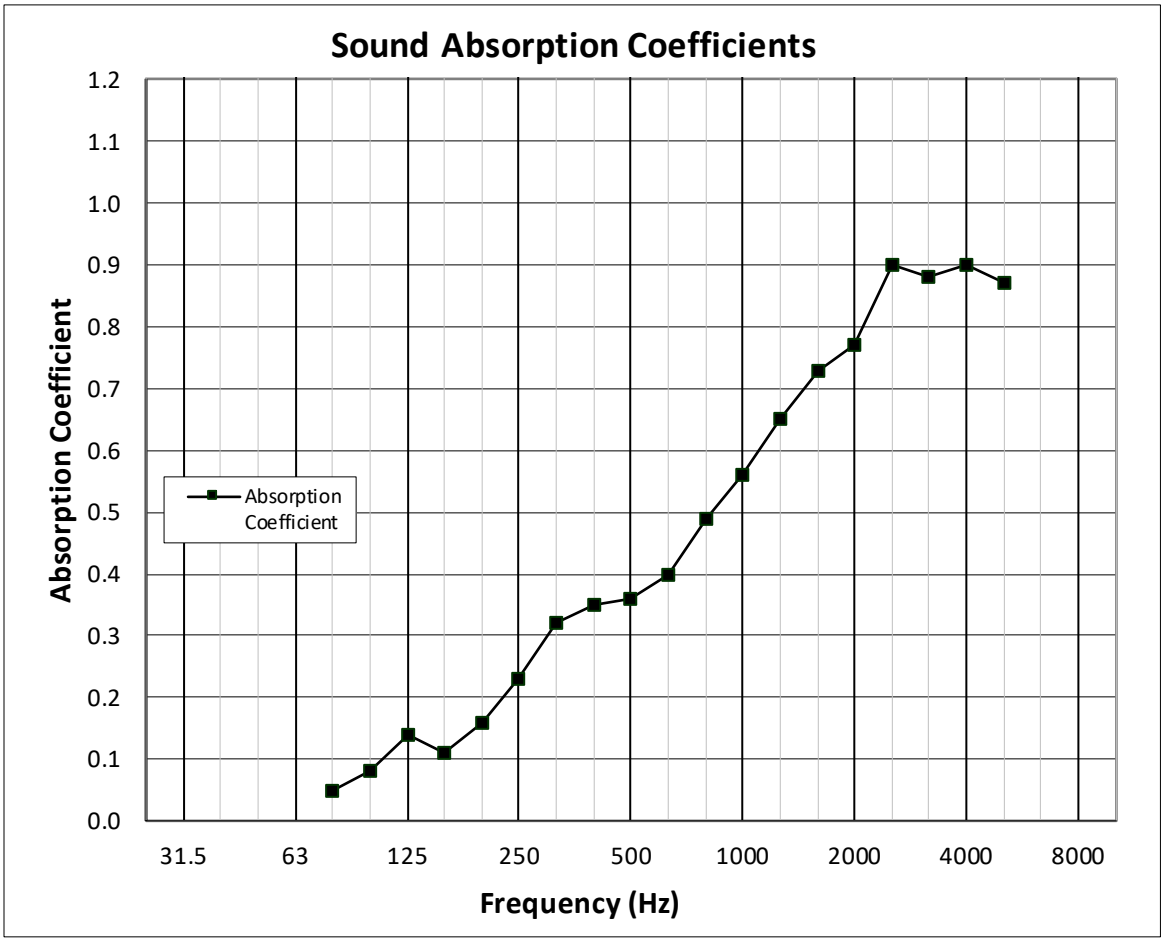
1) The NRC rating is the arithmetic average of the sound absorption coefficients at 250, 500, 1000, and 2000 hertz. The average is rounded to the nearest multiple of 0.05.
2) The SAA rating is the arithmetic average of the sound absorption coefficients at the frequencies ranging from 200 to 2500 hertz.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

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01B1 GRAPH (Method 1 – Area Footprint)



intertek
Total Quality. Assured.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.

Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01B1 DATA (Method 3 – One Surface Area)

TECHNICIAN	Zachary P. Golden	
SPECIMEN AREA	4.46 m²	
MOUNTING TYPE	J Mount (Method 1 - one surface area)	
	EMPTY	**FULL**
TEMP °C	21.3	21.7
RH %	47	47
B.P. (mb)	1004	1004

FREQ (Hz)	**EMPTY ROOM ABSORPTION** (m^2)	**FULL ROOM ABSORPTION** (m^2)	**ABSORPTION COEFFICIENT**
80	5.69	6.01	0.07
100	6.15	6.70	0.12
125	5.30	6.31	0.23
160	4.72	5.53	0.18
200	5.41	6.54	0.25
250	5.71	7.34	0.37
315	5.34	7.62	0.51
400	5.07	7.56	0.56
500	4.94	7.50	0.57
630	4.88	7.72	0.64
800	5.15	8.62	0.78
1000	5.04	9.04	0.90
1250	5.28	9.94	1.04
1600	5.38	10.57	1.17
2000	5.30	10.80	1.23
2500	5.73	12.18	1.45
3150	6.43	12.71	1.41
4000	7.18	13.59	1.44
5000	7.88	14.11	1.40

APPARENT NRC RATING	0.75	*(Noise Reduction Coefficient)*
APPARENT SAA RATING	0.79	*(Sound Absorption Average)*

Notes:

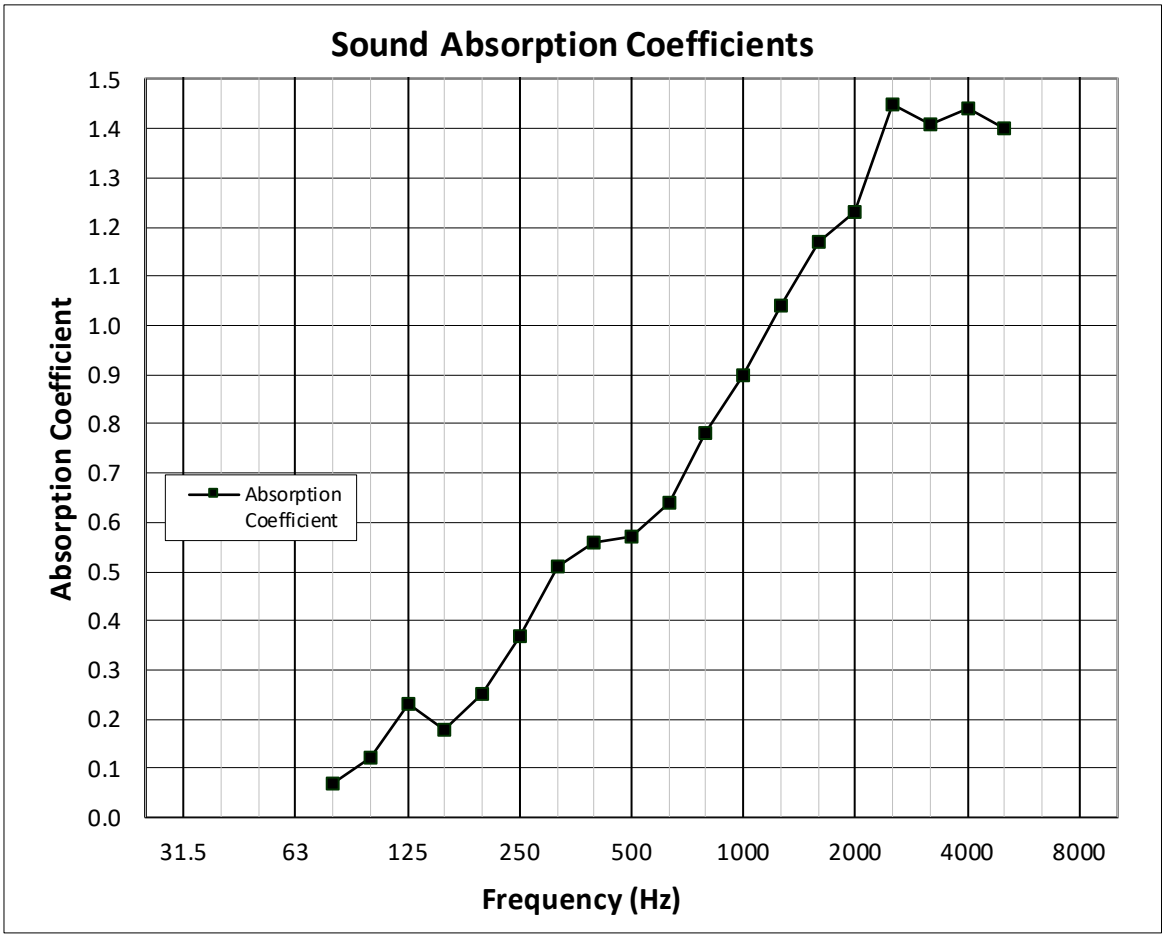
1) The NRC rating is the arithmetic average of the sound absorption coefficients at 250, 500, 1000, and 2000 hertz. The average is rounded to the nearest multiple of 0.05.
2) The SAA rating is the arithmetic average of the sound absorption coefficients at the frequencies ranging from 200 to 2500 hertz.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

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01B1 GRAPH (Method 3 – One Surface Area)



intertek
Total Quality. Assured.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.

Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01C DATA

TECHNICIAN	Cody L. French	
NO. OF UNITS	8.00	
MOUNTING TYPE	J	
	EMPTY	**FULL**
TEMP °C	22.1	22.3
RH %	47	47
B.P. (mb)	1000	1000

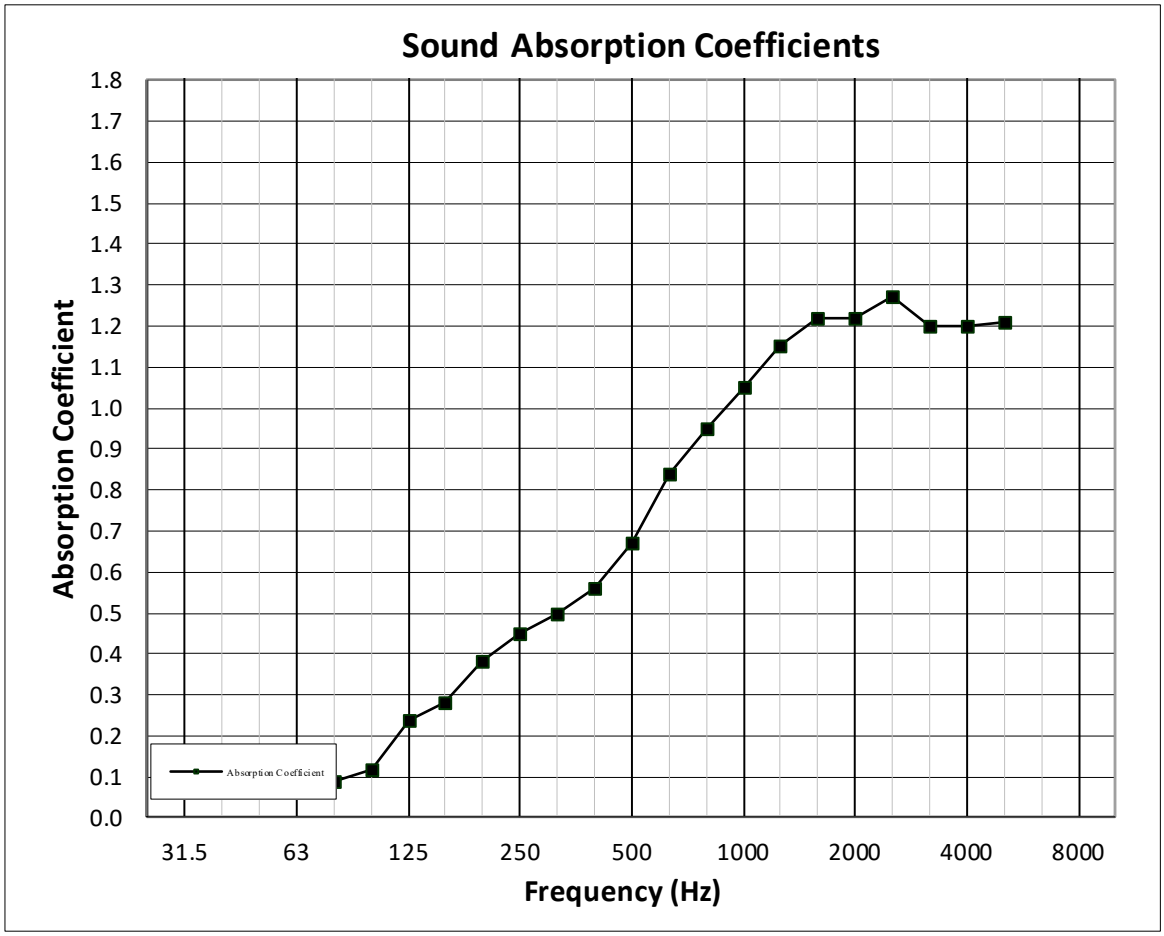
FREQ (Hz)	**EMPTY ROOM ABSORPTION** (m^2)	**FULL ROOM ABSORPTION** (m^2)	**ABSORPTION (M^2 per Unit)**
80	5.64	6.40	0.090
100	6.25	7.24	0.120
125	5.40	7.32	0.240
160	4.71	6.98	0.280
200	5.44	8.50	0.380
250	5.68	9.31	0.450
315	5.30	9.29	0.500
400	5.07	9.59	0.560
500	4.97	10.31	0.670
630	4.90	11.60	0.840
800	5.14	12.75	0.950
1000	5.05	13.42	1.050
1250	5.31	14.50	1.150
1600	5.39	15.17	1.220
2000	5.31	15.08	1.220
2500	5.71	15.91	1.270
3150	6.40	16.00	1.200
4000	7.07	16.67	1.200
5000	7.67	17.32	1.210

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01C GRAPH



intertek
Total Quality. Assured.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.

Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01C DATA (Method 1 – Area Footprint)

TECHNICIAN	Cody L. French	
SPECIMEN AREA	7.82 m²	
MOUNTING TYPE	Type J (Method 1 - area footprint)	
	EMPTY	**FULL**
TEMP °C	22.1	22.3
RH %	47	47
B.P. (mb)	1000	1000

FREQ (Hz)	**EMPTY ROOM ABSORPTION** (m^2)	**FULL ROOM ABSORPTION** (m^2)	**ABSORPTION COEFFICIENT**
80	5.64	6.40	0.10
100	6.25	7.24	0.13
125	5.40	7.32	0.25
160	4.71	6.98	0.29
200	5.44	8.50	0.39
250	5.68	9.31	0.46
315	5.30	9.29	0.51
400	5.07	9.59	0.58
500	4.97	10.31	0.68
630	4.90	11.60	0.86
800	5.14	12.75	0.97
1000	5.05	13.42	1.07
1250	5.31	14.50	1.18
1600	5.39	15.17	1.25
2000	5.31	15.08	1.25
2500	5.71	15.91	1.30
3150	6.40	16.00	1.23
4000	7.07	16.67	1.23
5000	7.67	17.32	1.23

APPARENT NRC RATING	0.85	*(Noise Reduction Coefficient)*
APPARENT SAA RATING	0.88	*(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.

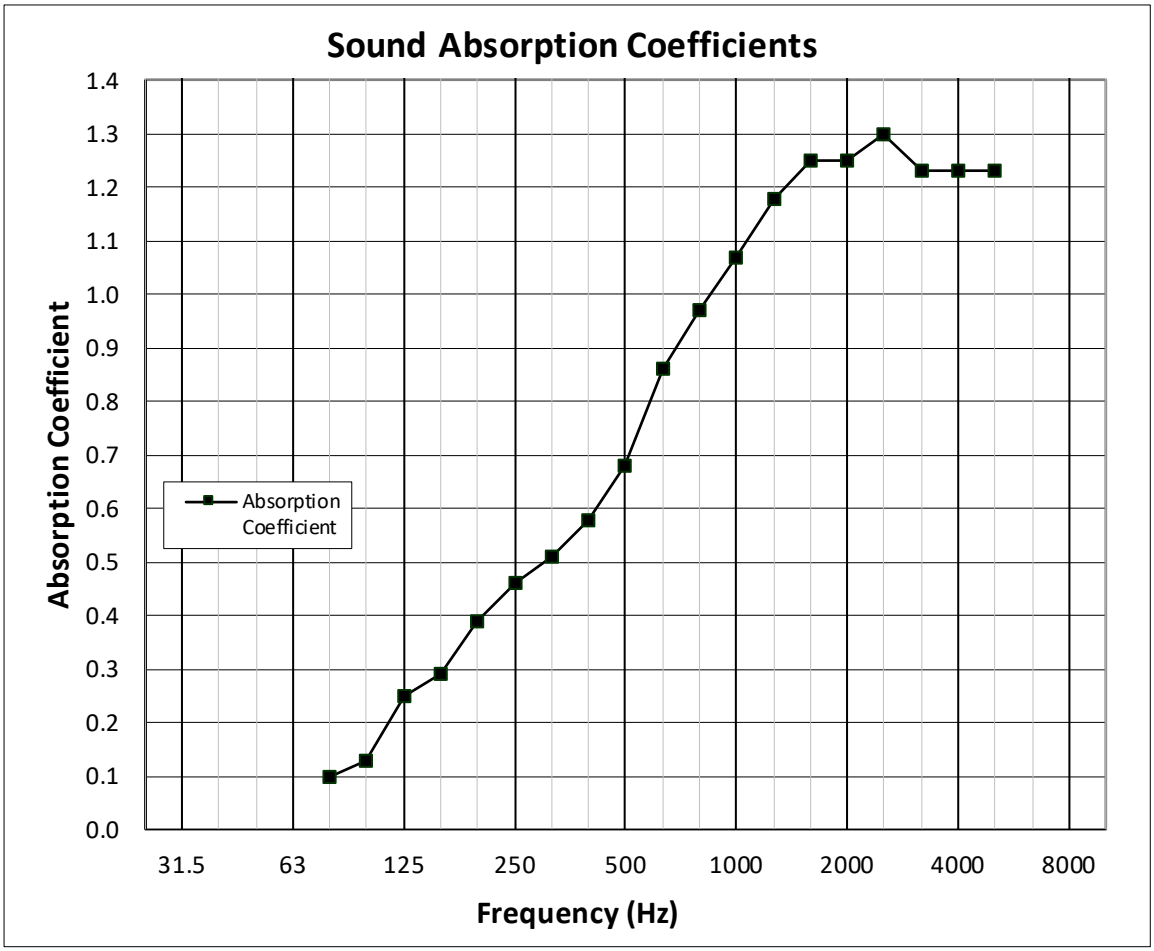
2) The SAA rating is the arithmetic average of the sound absorption coefficients at the frequencies ranging from 200 to 2500 hertz. The average is rounded to the nearest multiple of 0.01.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01C GRAPH (Method 1 – Area Footprint)



intertek
Total Quality. Assured.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.

Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01C DATA (Method 3 – One Surface Area)

TECHNICIAN	Cody L. French	
SPECIMEN AREA	5.95 m²	
MOUNTING TYPE	J Mount (Method 3 - one surface area)	
	EMPTY	**FULL**
TEMP °C	22.1	22.3
RH %	47	47
B.P. (mb)	1000	1000

FREQ (Hz)	**EMPTY ROOM ABSORPTION** (m^2)	**FULL ROOM ABSORPTION** (m^2)	**ABSORPTION COEFFICIENT**
80	5.64	6.40	0.13
100	6.25	7.24	0.17
125	5.40	7.32	0.32
160	4.71	6.98	0.38
200	5.44	8.50	0.51
250	5.68	9.31	0.61
315	5.30	9.29	0.67
400	5.07	9.59	0.76
500	4.97	10.31	0.90
630	4.90	11.60	1.13
800	5.14	12.75	1.28
1000	5.05	13.42	1.41
1250	5.31	14.50	1.55
1600	5.39	15.17	1.64
2000	5.31	15.08	1.64
2500	5.71	15.91	1.72
3150	6.40	16.00	1.61
4000	7.07	16.67	1.62
5000	7.67	17.32	1.62

APPARENT NRC RATING	1.15	*(Noise Reduction Coefficient)*
APPARENT SAA RATING	1.15	*(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.

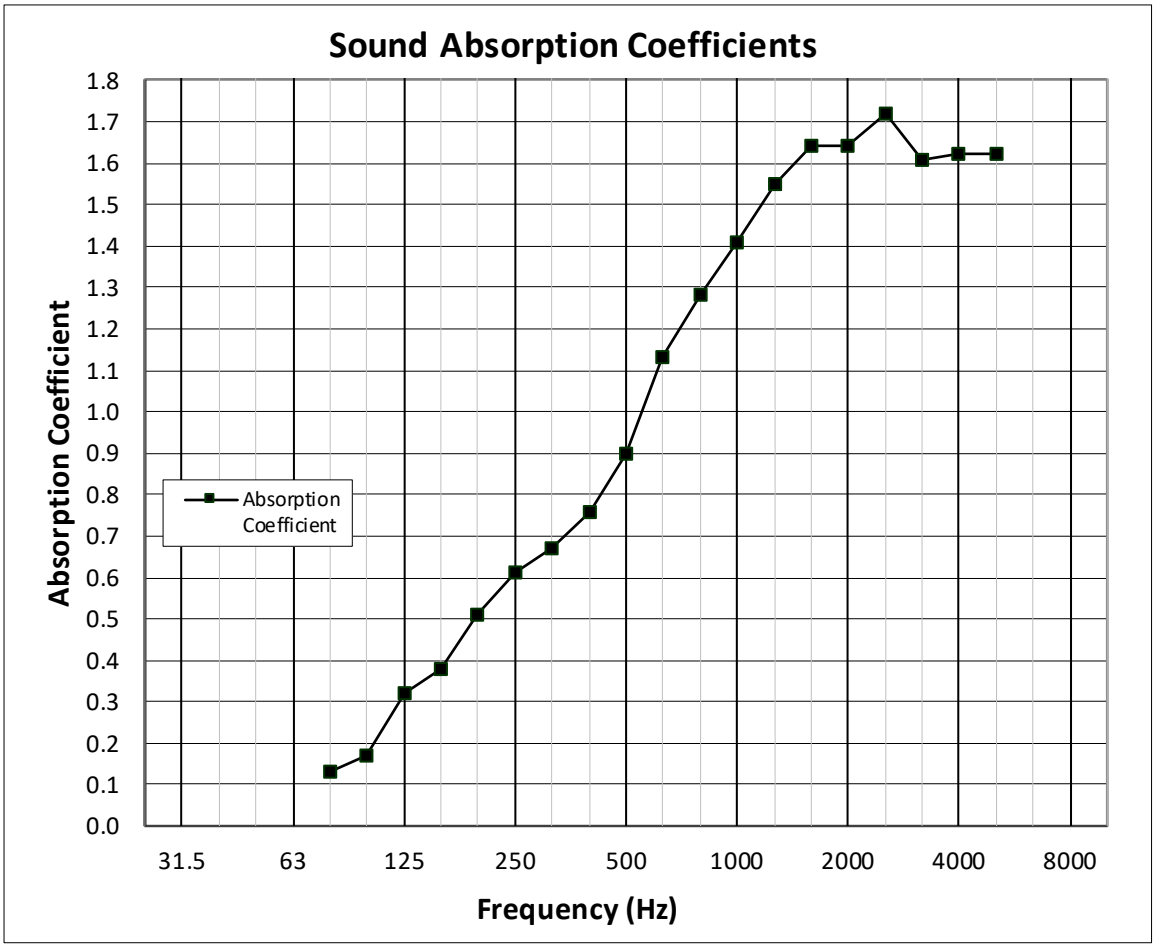
2) The SAA rating is the arithmetic average of the sound absorption coefficients at the frequencies ranging from 200 to 2500 hertz. The average is rounded to the nearest multiple of 0.01.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01C GRAPH (Method 3 – One Surface Area)



intertek
Total Quality. Assured.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.

Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01D DATA

TECHNICIAN	Cody L. French
NO. OF UNITS	8.00
MOUNTING TYPE	J

	EMPTY	**FULL**
TEMP °C	22.1	22.3
RH %	47	49
B.P. (mb)	1000	1000

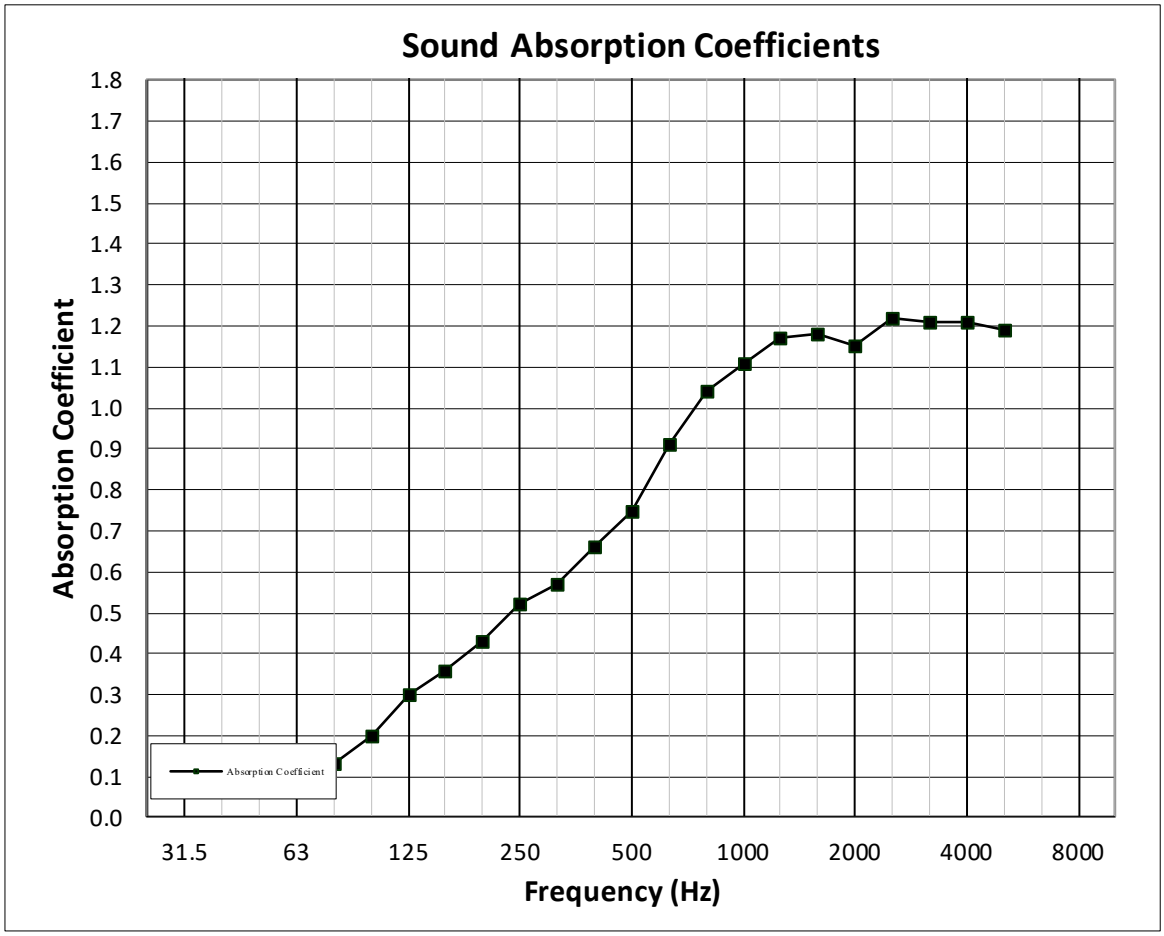
FREQ (Hz)	**EMPTY ROOM ABSORPTION** (m^2)	**FULL ROOM ABSORPTION** (m^2)	**ABSORPTION (M^2 per Unit)**
80	5.64	6.72	0.130
100	6.25	7.83	0.200
125	5.40	7.81	0.300
160	4.71	7.59	0.360
200	5.44	8.86	0.430
250	5.68	9.85	0.520
315	5.30	9.88	0.570
400	5.07	10.37	0.660
500	4.97	10.96	0.750
630	4.90	12.18	0.910
800	5.14	13.44	1.040
1000	5.05	13.97	1.110
1250	5.31	14.65	1.170
1600	5.39	14.79	1.180
2000	5.31	14.48	1.150
2500	5.71	15.46	1.220
3150	6.40	16.04	1.210
4000	7.07	16.76	1.210
5000	7.67	17.18	1.190

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01D GRAPH



intertek
Total Quality. Assured.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.

Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01D DATA (Method 1 – Area Footprint)

TECHNICIAN	Cody L. French	
SPECIMEN AREA	7.66 m²	
MOUNTING TYPE	Type J with area footprint	
	EMPTY	**FULL**
TEMP °C	22.1	22.3
RH %	47	49
B.P. (mb)	1000	1000

FREQ (Hz)	**EMPTY ROOM ABSORPTION** (m^2)	**FULL ROOM ABSORPTION** (m^2)	**ABSORPTION COEFFICIENT**
80	5.64	6.72	0.14
100	6.25	7.83	0.21
125	5.40	7.81	0.31
160	4.71	7.59	0.38
200	5.44	8.86	0.45
250	5.68	9.85	0.54
315	5.30	9.88	0.60
400	5.07	10.37	0.69
500	4.97	10.96	0.78
630	4.90	12.18	0.95
800	5.14	13.44	1.08
1000	5.05	13.97	1.16
1250	5.31	14.65	1.22
1600	5.39	14.79	1.23
2000	5.31	14.48	1.20
2500	5.71	15.46	1.27
3150	6.40	16.04	1.26
4000	7.07	16.76	1.26
5000	7.67	17.18	1.24

APPARENT NRC RATING	0.90	*(Noise Reduction Coefficient)*
APPARENT SAA RATING	0.93	*(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.

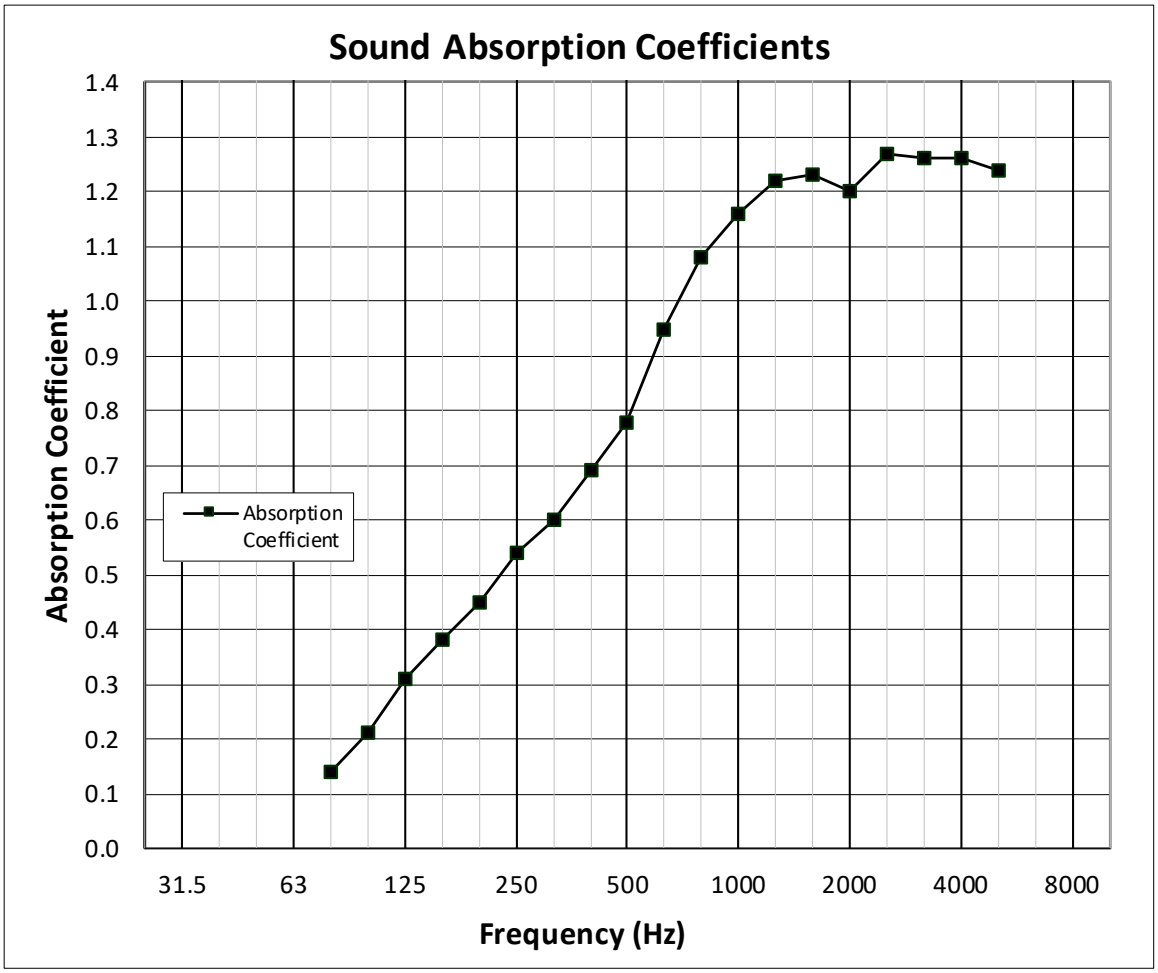
2) The SAA rating is the arithmetic average of the sound absorption coefficients at the frequencies ranging from 200 to 2500 hertz. The average is rounded to the nearest multiple of 0.01.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01D GRAPH (Method 1 – Area Footprint)



intertek
Total Quality. Assured.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.

Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01D DATA (Method 3 – One Surface Area)

TECHNICIAN	Cody L. French	
SPECIMEN AREA	5.95 m²	
MOUNTING TYPE	J (Method 3 - one surface area)	
	EMPTY	**FULL**
TEMP °C	22.1	22.3
RH %	47	49
B.P. (mb)	1000	1000

FREQ (Hz)	**EMPTY ROOM ABSORPTION** (m^2)	**FULL ROOM ABSORPTION** (m^2)	**ABSORPTION COEFFICIENT**
80	5.64	6.72	0.18
100	6.25	7.83	0.27
125	5.40	7.81	0.40
160	4.71	7.59	0.48
200	5.44	8.86	0.57
250	5.68	9.85	0.70
315	5.30	9.88	0.77
400	5.07	10.37	0.89
500	4.97	10.96	1.01
630	4.90	12.18	1.23
800	5.14	13.44	1.40
1000	5.05	13.97	1.50
1250	5.31	14.65	1.57
1600	5.39	14.79	1.58
2000	5.31	14.48	1.54
2500	5.71	15.46	1.64
3150	6.40	16.04	1.62
4000	7.07	16.76	1.63
5000	7.67	17.18	1.60

APPARENT NRC RATING	1.20	*(Noise Reduction Coefficient)*
APPARENT SAA RATING	1.20	*(Sound Absorption Average)*

Notes:

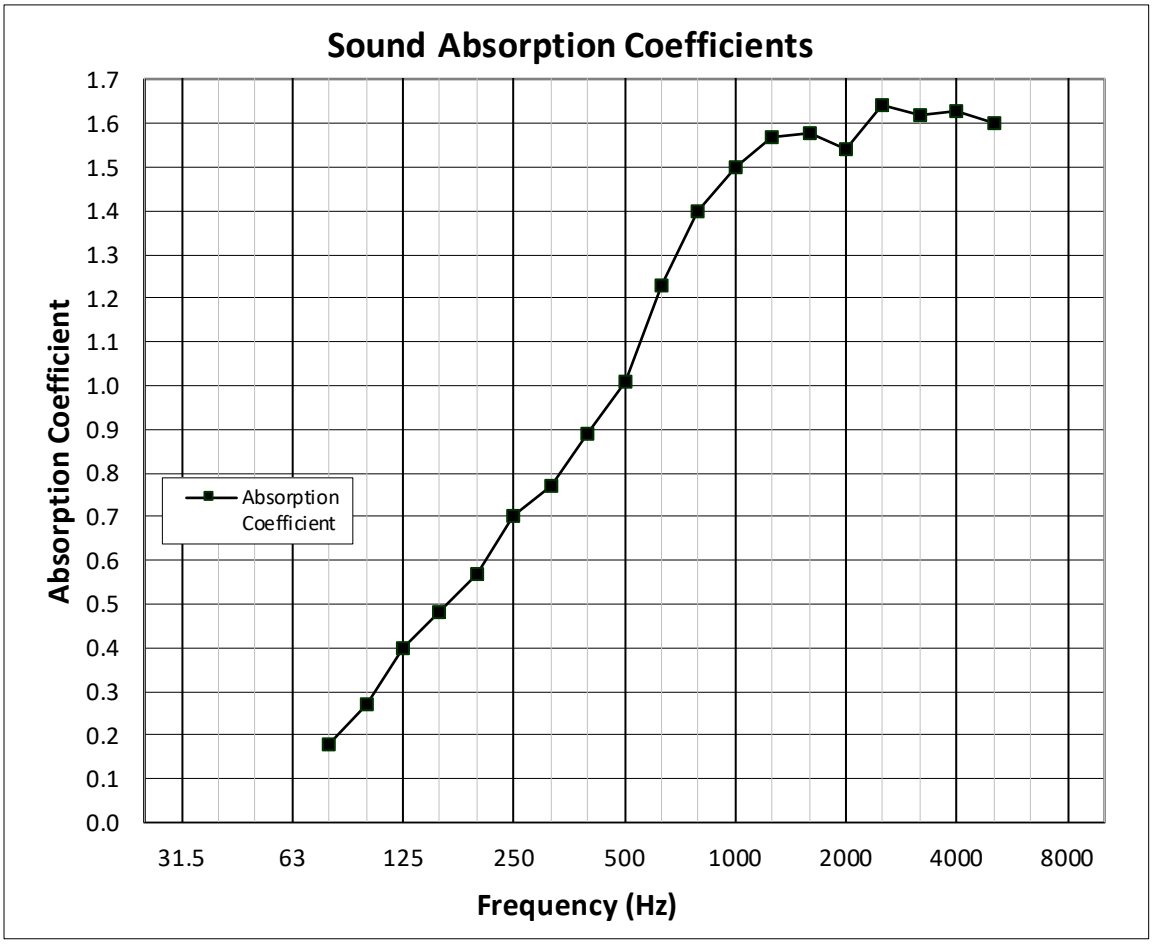
1) The NRC rating is the arithmetic average of the sound absorption coefficients at 250, 500, 1000, and 2000 hertz. The average is rounded to the nearest multiple of 0.05.
2) The SAA rating is the arithmetic average of the sound absorption coefficients at the frequencies ranging from 200 to 2500 hertz.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

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

P7986.01D GRAPH (Method 3 – One Surface Area)



130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

SECTION 12
PHOTOGRAPHS

Photo No. 1
View of Test Option P7986.01A

Photo No. 2
View of Test Option P7986.01B1

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

Photo No. 3
View of Test Option P7986.01C

C

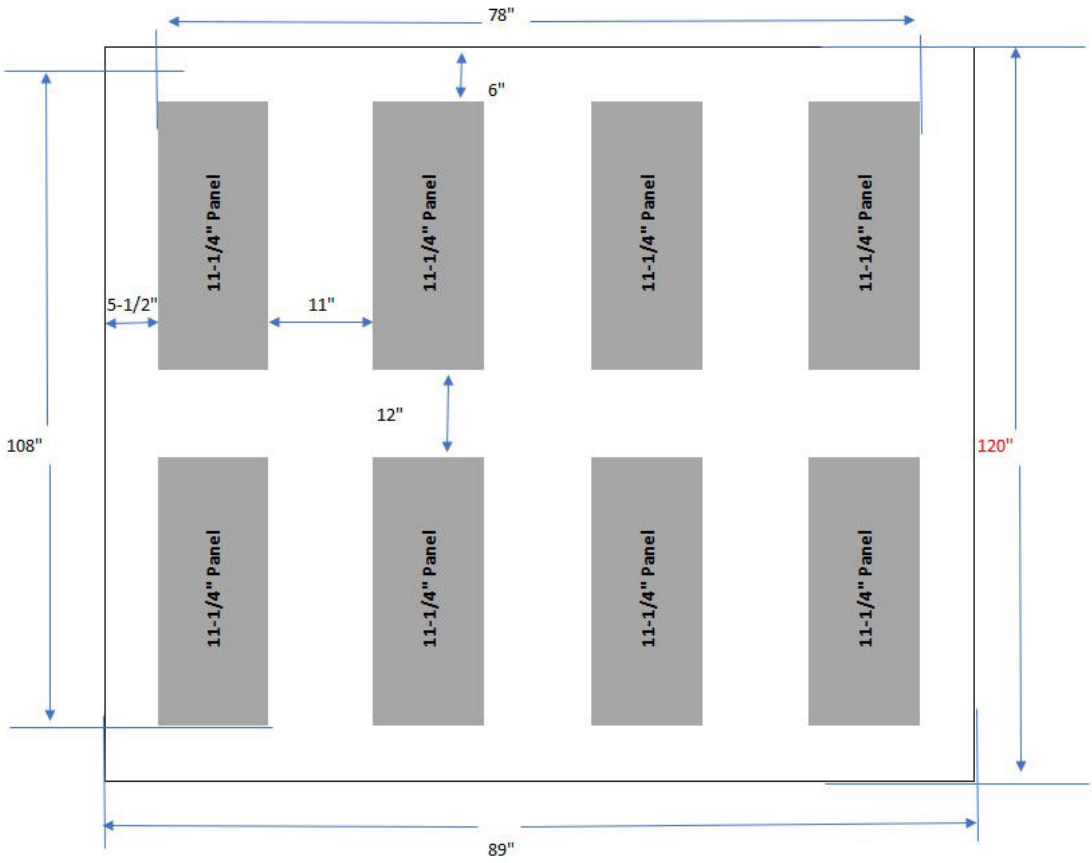
Photo No. 4
View of Test Option P7986.01D

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

SECTION 13
DRAWINGS

OPTION P7986.01A AREA FOOTPRINT ENCOMPASSING THE 8 PANEL CONFIGURATION CALCULATION (Method 1)

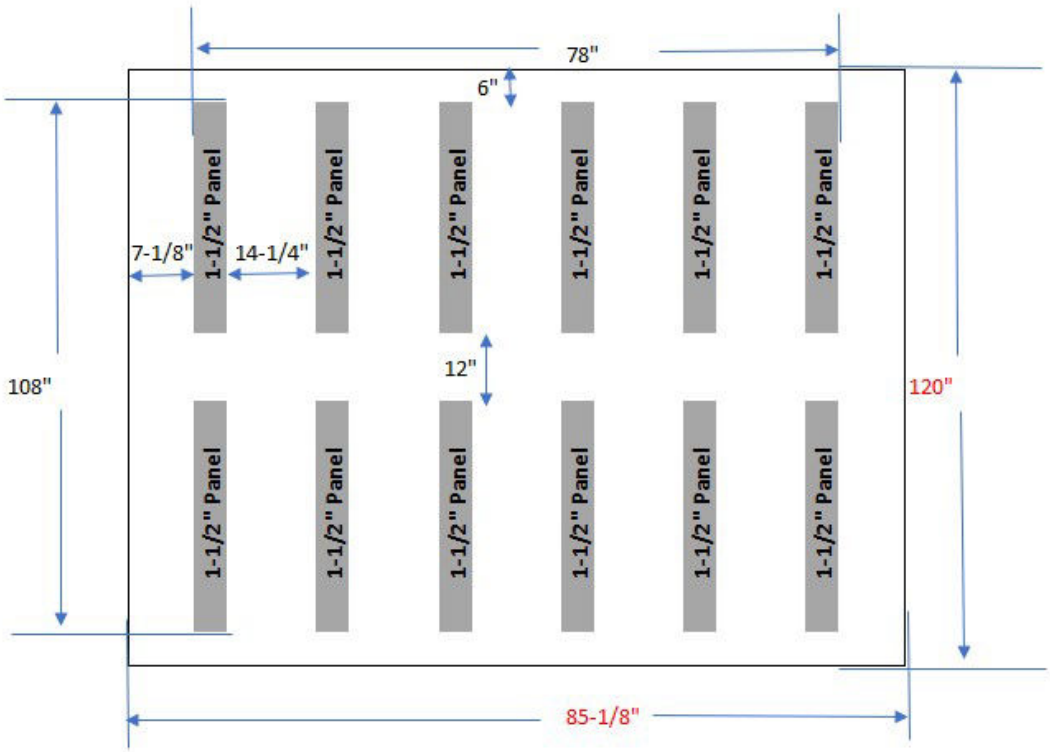


130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

OPTION P7986.01B1 AREA FOOTPRINT ENCOMPASSING THE 12 PANEL CONFIGURATION CALCULATION (Method 1)

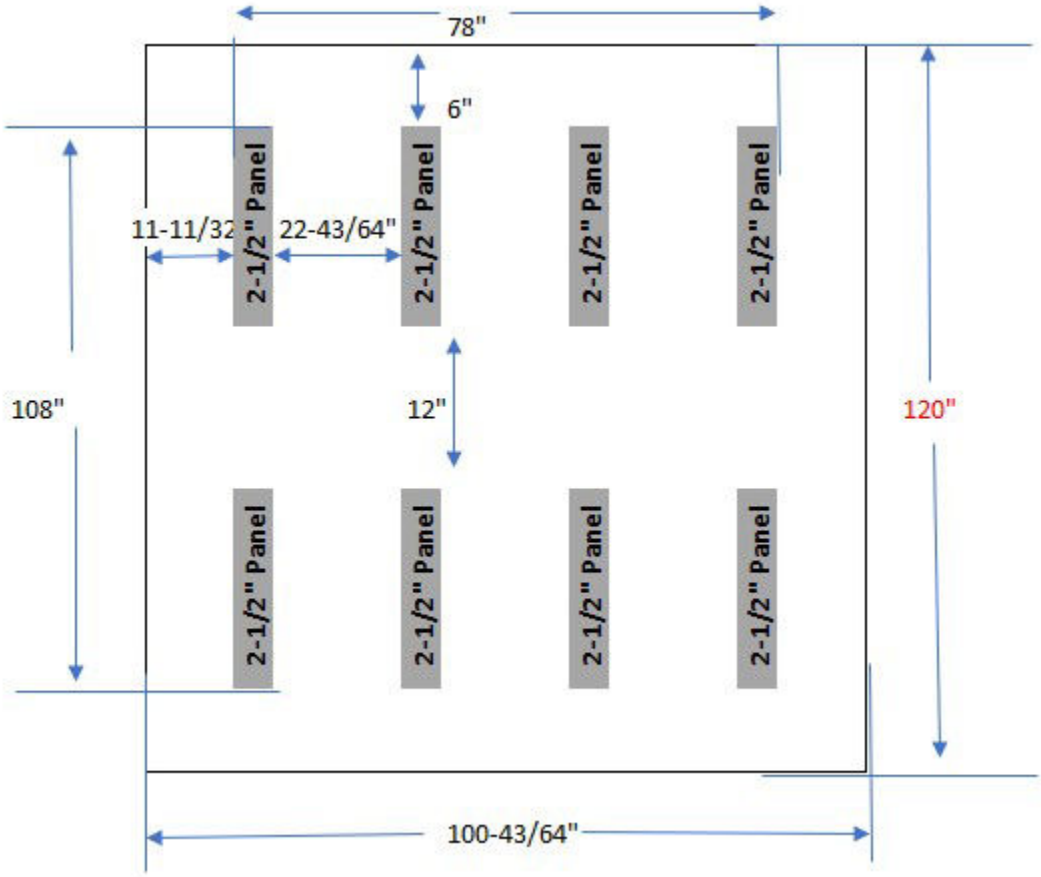


130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

OPTION P7986.01C AREA FOOTPRINT ENCOMPASSING THE 8 PANEL CONFIGURATION CALCULATION (Method 1)

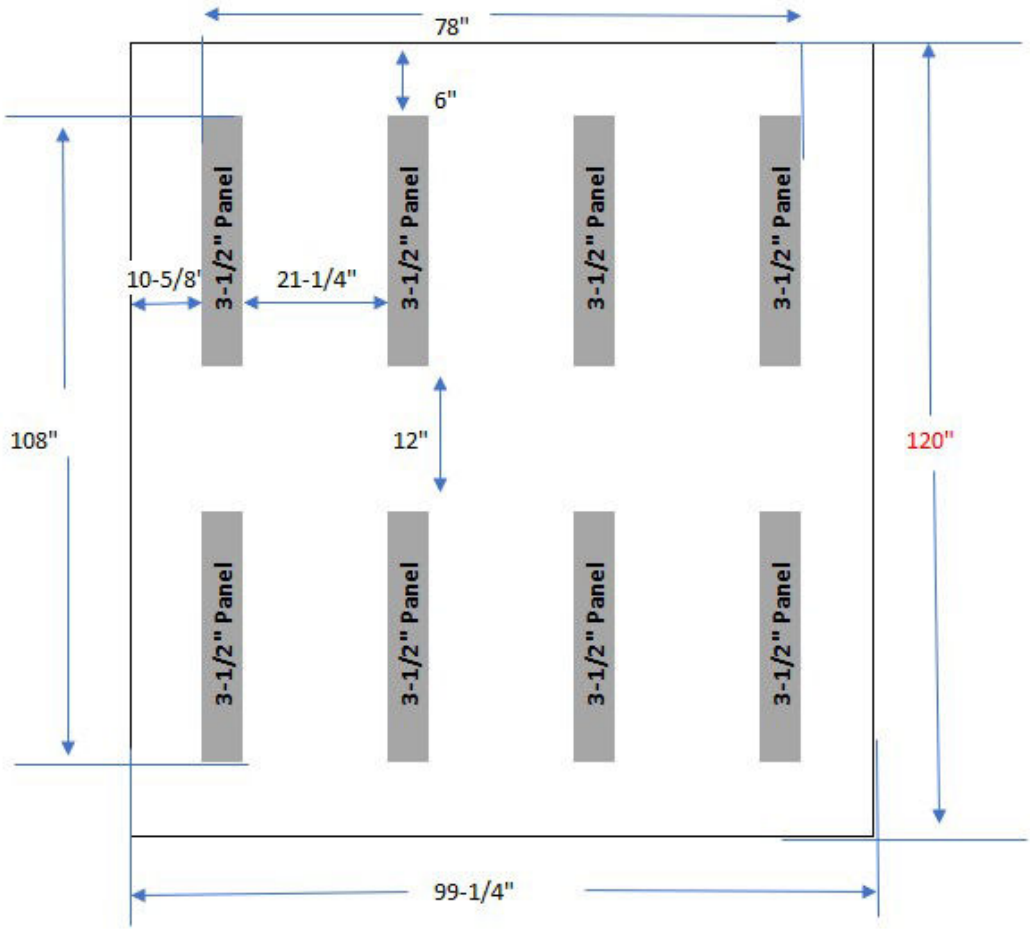


130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR LOFTWALL, INC.
Report No.: P7986.01-113-11-R0
Date: 05/11/23

OPTION P7986.01D AREA FOOTPRINT ENCOMPASSING THE 8 PANEL CONFIGURATION CALCULATION (Method 1)



130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

SECTION 14
REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	05/11/23	N/A	Original Report Issue