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Impact Sound Insulation testing in accordance with Test Standards BS EN ISO 140-7:1998

Report Reference Number: 32504

Test Date: 30/01/2024

Report Compilation Date: 31/01/2024

Abstract

Pre-completion Sound Insulation Testing is the process of measuring how much noise a building element, normally a separating wall or a separating floor, prevents from travelling through to a neighbouring dwelling

This report describes the test procedure and the results obtained from the pre-completion sound insulation testing at 69 Pennine Drive, London, NW2 1NR.

Competent Tester

Testing in this report was conducted by Cristi Vasilache (Registration Number: 7330), who is a registered tester in the SITMA Certification Scheme for Sound Insulation Testers, which is a UKAS Accredited Certification Body No. 10579.

Testing conducted that forms this report was conducted by a SITMA Certified tester and not SITMA themselves. The certified tester has uploaded the resultant raw data into the SITMA Portal which generates this test report. This test report is required to be produced as a requirement of the testers certification with SITMA, and is not a report by SITMA using its accreditation.


Contents

The SITMA Certified Testers' Scheme	2
Certified Tester Conducting this test.....	2
SITMA UKAS Accreditation Scope.....	2
Audit Requirements.....	2
SITMA Portal.....	2
Calibration Requirements.....	2
Complaints.....	2
Report Revisions	3
Simplified Test Results	3
Testing Methodology	4
Level measurements in the Source & Receive Rooms (L1 & L2).....	4
Background Measurements in Receive Room (L_{β}).....	5
Reverberation Time Measurements (RT).....	5
Level Measurements in the Receive Room.....	4
Background Measurements in Receive Room (L_{β}).....	5
Reverberation Time Measurements (RT).....	5
Calculation Methodology	6
Airborne Sound Insulation Tests	6
Background Noise Correction (Corrected L2).....	6
Precision.....	6
Level Difference ('D').....	6
Weighted Standardized Level Difference.....	6
Weighted Standardized Level Difference with Spectrum Adaption.....	6
'Precision.....	6
Standardized Impact Sound Pressure Level.....	6
Weighted Standardized Impact Sound Pressure Level.....	6
Sampling Regime	7
Deviations	7
Background Noise Levels.....	7
Deviations Related to the test.....	7
Calibration	8
Calibration Certificates.....	8
Detailed Test Results	9
Detailed Test Results.....	9
Airborne floor Tests – Material Change of Use by Cristi Vasilache.....	10
Impact floor Tests – Material Change of Use by Cristi Vasilache.....	11
Appendix A – Individual Certificates	12
Appendix B – UKAS Calibration Certificates	17

The SITMA Certified Testers' Scheme

This testing described within this report was conducted by a certified tester that is registered with the SITMA Certification Scheme for Sound Insulation Testers' Scheme, which is a UKAS Accredited Certification Body No. 10579. The report was generated using the SITMA Portal, which forms part of the requirements for certified testers in the SITMA Certification Scheme for Sound Insulation Testers. accreditation of SITMA. More Further information on the certification scheme, it's lodgement system, quality control and auditing requirements are discussed below.

Certified Tester Conducting this test:

Certified Tester:	Cristi Vasilache	
Associated Company:	ATSPACE Ltd, Unit 3 & 4 , , Barkway, SG8 8DL.	
Live Certification Status	https://www.bcta.group/sitma/members	

SITMA UKAS Accreditation Scope

SITMA itself holds BS EN ISO/IEC 17024:2012 ¹ accreditation from UKAS. This test was conducted by a tester that is SITMA certified but not SITMA UKAS Certified.

Audit Requirements

Each tester is audited annually, which may be unannounced, in accordance with [SITMA Document PUS012 – Audit Process & Outcomes](#). This is achieved by the tester logging their job onto the SITMA portal **in advance of testing taking place**.

Each certified tester will be able to issue you with their SITMA audit documentation from their last audit alongside this report, if requested.

SITMA Portal

The SITMA Portal, besides logging every job for every tester, is used to generate reports, just like this one. The portal does not accept pre-calculated information, it takes the raw data from the sound level meter and calculates each individual test result before producing this report, ensuring no test data has been amended by any tester prior to being uploaded.

Calibration Requirements

SITMA calibration requirements can be found here: <https://www.bcta.group/sitma/equipment/usable-equipment>.

Complaints

You should speak directly with the tester if you wish to make a complaint. If your complaint is not handled to your satisfaction, you are then welcome to make a complaint directly to the SITMA certified tester's scheme in line with our complaints process. [SITMA Document PUS013 – Complaints & Appeals](#).

TO CHECK THIS REPORT IS VALID

1. Head to this site:	https://www.sitma.bcta.group/
2. Use these credentials:	Report Reference Number: 32504
	Job Postcode: NW2 1NR

¹ BS EN ISO/IEC 17024:2012 Conformity assessment — General requirements for bodies operating certification of persons (2018)

² United Kingdom Accreditation Service (UKAS) SITMA accreditation No. 10579

Report Revisions

Report Version:	Change(s) made
1.0	This document is the initial issue

Simplified Test Results

Certificate Number	Plot & Source Room	Plot & Receive Room	Target $D_{nT,y,w}+C_{tr}$ or $L'_{nT,y,w}$ (dB)	Result $D_{nT,y,w}+C_{tr}$ or $L'_{nT,y,w}$ (dB)	Result
141838	Flat top flat Bedroom 1	Flat bottom flat Bedroom 1	≥ 43	51	PASS
141839	Flat top flat Bedroom 2	Flat bottom flat Bedroom 2	≥ 43	53	PASS
141840	Flat top flat Bedroom 1	Flat bottom flat Bedroom 1	≤ 64	53	PASS
141841	Flat top flat Bedroom 2	Flat bottom flat Bedroom 2	≤ 64	49	PASS

* Results shown with an asterisk have a deviation which is discussed on the certificate and in the Detailed Test Results section.

Testing Methodology

Airborne Sound Insulation Tests

Measurements of Standardised Level Difference (D_{nT}) were conducted in accordance with BS EN ISO 140-4:1998.

Level measurements in the Source & Receive Rooms (L_1 & L_2)

The noise was generated in the source room by placing an active loudspeaker, which produced a steady spectrum of noise, in an external corner of the room, opposite the wall being tested (where walls are being tested) at least 0.5m away from any reflective surface.

The sound pressure level was measured in both the source room and receive room, sampling as much of the room as possible, for each of two loudspeaker positions. The sound level meter was always kept 0.7m away from any reflective surface as to not artificially increase or decrease noise levels into the microphone.

The measurements were taken at one-third octave band intervals from 100 to 3150 Hertz using an averaging time of at least 30 seconds. The speaker was moved at least 1.4m horizontally and 0.3m vertically and the measurements were repeated. The measurements in each room were logarithmically averaged.

Background Measurements in Receive Room (L_b)

Background noise levels were measured in the receive room with the source room speaker turned off to ensure the background noise level did not influence the result. Corrections are applied when the background noise level is within 10dB of the signal and background noise level combined.

The background noise level was measured over a time period that accurately reflects the background noise measurement at the time of the test. This is normally between 6 & 30 seconds and can vary between the first and second background measurements.

Reverberation Time Measurements (RT)

The reverberation measurements were carried out following the guidance in BS EN ISO 140-7: 1998 and BS EN ISO EN 354:2003³.

A minimum of 6 reverberation time measurements were carried out in the receive room to accurately define the amount of influence the diffuse field has on the microphone, ensuring that the soft or hard surfaces within the room do not impact the overall test result.

These 6 reverberation time measurements were measured in the receive room using a minimum of 3 microphone positions in accordance with Section 6.5 of BS EN ISO 140-4:1998.

The noise was generated in the receive room by placing an active loudspeaker, which produced a steady spectrum of noise, in a corner of the room at least 0.5m away from any reflective surface.

The T_{20} RT measurements are used in the calculation as a minimum. Where T_{30} RT measurements are available, these are used where the sound level meter can do so.

Impact Sound Insulation Tests

Impact Sound Insulation was conducted to BS EN ISO 140-7:1998

Measurements of standardised impact Sound Pressure Level (L'_{nT}) were conducted in accordance with BS EN ISO 140-7:1998.

Level Measurements in the Receive Room

Level measurements were acquired in the receive room using a tapping machine, which has a set of 5

³ BS EN ISO 354:2003 Acoustics – Measurement of sound absorption in a reverberation room

steel hammers, to produce impact noise in the source room in at least four different positions on the separating floor surface.

The tapping machine was orientated at 45 degrees to the main floor axis.

The noise level was measured in the receive room at a minimum of 4 swept microphone positions or a minimum of 6 fixed microphone positions at one-third octave band intervals from 100 to 3150 Hertz using an averaging time of at least 6 seconds for each of the 4 tapping machine positions, creating a minimum of 4 or 6 individual measurement readings.

The sound level meter was always kept 0.7m away from any reflective surface as to not artificially increase or decrease noise levels into the microphone.

Background Measurements in Receive Room (L_b)

The background noise level was measured with the tapping machine turned off. This is to ensure the background noise level did not influence the result. The background noise level is measured over a time period that accurately reflects the background noise measurement at the time of the test. This is normally between 6 & 30 seconds and can vary between the first and second background measurements.

Reverberation Time Measurements (RT)

The reverberation measurements were carried out following the guidance in BS EN ISO 140-7: 1998 and BS ISO EN 354:2003³.

A minimum of 6 reverberation time measurements were carried out in the receive room to accurately define the amount of influence the diffuse field has on the microphone, ensuring that the soft or hard surfaces within the room do not impact the overall test result.

These 6 reverberation time measurements were measured in the receive room using a minimum of 3 microphone positions at each of two loudspeaker positions in accordance with Section 5.5 of BS EN ISO 140-7:1998.

The noise was generated in the receive room by placing an active loudspeaker, which produced a steady spectrum of noise, in a corner of the room at least 0.5m away from any reflective surface and then moved to another corner whilst maintaining the distances and the measurements were repeated.

The T_{20} RT measurements are used in the calculation as a minimum. Where T_{30} RT measurements are available, these are used where the sound level meter can do so.

These measurements are often the same readings as the airborne test when measured in the same group of tests where the receive room is the same and the test(s) carried out on the same day.

³ BS EN ISO 354:2003 Acoustics – Measurement of sound absorption in a reverberation room

Calculation Methodology

Uniform Requirements

Background Noise Correction ('Corrected L_2 ')

Any receive room measurements that are within 6dB of the background measurements are corrected by adding 1.3 dB to the receive room measurement.

If the difference in levels is smaller than 10dB but greater than 6dB, the signal is corrected as per BS EN ISO 140-4:1998 Section 6.6 for airborne tests and BS EN ISO 140-7:1998 Section 5.6 for impact tests.

Precision

All measurements are taken to 0.1dB precision, except reverberation times which are taken to 0.01 second precision. Measurements are calculated without rounding until the single number rating calculation, following guidance from BS EN ISO 717-1:1997⁴ and BS EN ISO 717-2:1997⁵

Airborne Sound Insulation Tests

Level Difference (' D ')

The difference between the source and 'corrected' receive room measurement is calculated for each speaker position and 2 differences arithmetically averaged to obtain ' D ' for each frequency measured. These are calculated separately for Speaker Position 1 and Speaker Position 2.

Standardised Level Difference (' D_{nT} ')

The results at each third octave band frequency are standardised by adding 10 times the logarithm of the reverberation time at each frequency, divided by 0.5 (reference reverberation time), to give the standardized level difference (D_{nT}) at each frequency.

Weighted Standardized Level Difference (' $D_{nT,w}$ ')

The individual D_{nT} are then compared to the standard reference curve, with the sum of unfavourable deviations measured and adjusted, as defined in BS EN ISO 717-1:1997 to give a single figure result of $D_{nT,w}$.

Weighted Standardized Level Difference with Spectrum Adaption (' $D_{nT,w} + C; C_{tr}$ ')

The spectrum adaptation terms ($C; C_{tr}$) are then calculated in accordance with BS EN ISO 717-1:1997.

Precision

All measurements are taken to 0.1dB precision, except reverberation times which are taken to 0.01 seconds precision.

Impact Sound Insulation Tests

Standardized Impact Sound Pressure Level (' L'_{nT} ')

The results at each third octave band frequency are standardized by subtracting 10 times the logarithm of half the reverberation time at each frequency, divided by 0.5, to the 'corrected' L_2 to give the Standardized Impact Sound Pressure Level (L'_{nT}) at each frequency.

Weighted Standardized Impact Sound Pressure Level (' $L'_{nT,w}$ ').

The L'_{nT} are then compared to the standard reference curve, with the sum of unfavourable deviations measured and adjusted, as defined in BS EN ISO 717-2:1997 to give a single figure result of $L_{nT,w}$

⁴ BS EN ISO 717-1:1997 Acoustics – Rating of sound insulation in buildings and of building elements – Part 1: Airborne sound insulation

⁵ BS EN ISO 717-2:1997 Acoustics – Rating of sound insulation in buildings and of building elements – Part 2: Impact sound insulation

Sampling Regime

Testing was conducted using a sampling regime in accordance with Approved Document E 2003 [as amended] (ADE), ensuring each construction type was tested on the project, not necessarily each plot.

It is assumed that each construction type is constructed consistently. If this is not the case, and deviations of the construction type occur, further testing will be required to comply with the requirements of Approved Document E 2003 [as amended] to the Building Regulations.

The location of the sets of tests were selected at random by the tester except where specifically requested by the Local Authority Building Control officer, Approved Inspector or by specialist input from Robust Details Limited.

Rooms were tested unfurnished unless testing is specifically requested in a furnished room. Testing is conducted using the larger room as the source room, with a tolerance of 10% of volume being acceptable either way. Doors, windows, and trickle vents must be closed and kitchen units, cupboard doors, wardrobes etc shall be open for the duration of the test when they have been installed against the separating wall under test.

For impact testing, the tests are always conducted on the separating floor that has received Building Control Approval. It is only ever acceptable to test on a soft floor covering where that covering is an integral part of a Type 1 concrete floor as defined by ADE and cannot physically be lifted by the tester's own hands.

Occasionally, rooms may have an awkward layout, such as a stagger, be significant in length (>10m) or contain internal barriers. These requirements are defined in BS EN ISO 140-14:2004⁶ which all testers hold a copy of as a mandatory entry requirement into the SITMA Certified Testers' Scheme. Where a test has an awkward layout, the testing method from BS EN ISO 140-14:2004 will be defined in the report and sketches held internally.

Deviations

Background Noise Levels

Background noise levels are often an unavoidable part of testing as testing must take place on a live building site. Though a correction is applied within the calculation, high background noise levels may result in the wall/floor under test not achieving its full potential.

Situations can occur where background noise levels are not high, but the sound insulation performance of the separating floor or wall is so good that the measured levels are close to the prevailing background levels. The equipment used cannot distinguish between background noise levels and the noise from the speaker.

Deviations Related to the test

If any deviation from the testing method was necessary, details of the deviation are indicated on each individual test certificate (appended to this report). Where deviations were avoidable, or tests have been conducted on a 'trial' basis, these will be highlighted at the bottom of each certificate.

⁶ BS EN ISO 140-14:2004 Acoustics – Measurement of sound insulation in buildings and of building elements – Part 14: Guidelines for special situations in the field

Calibration

Calibration

The calibration certificates can be requested from the SITMA Certified Tester at any time.

Item Category	Standard	Calibration From	Calibration Expiry	Certificate Number
Tapper Machine	BS EN ISO 140-7:1998 Annex A	29 Sep 2023	28 Sep 2025	UCRT23/2263
Sound Level Meter (SLM)	IEC 61260-1:2014	28 Sep 2023	27 Sep 2025	UCRT23/2244
Sound Level Meter (SLM)	IEC 61260-1:2014	22 Sep 2023	21 Sep 2025	UCRT23/2213
Tapper Machine	BS EN ISO 140-7:1998 Annex A	13 Sep 2023	12 Sep 2025	UCRT232176
Tapper Machine	BS EN ISO 140-7:1998 Annex A	21 Jun 2023	21 Jun 2025	UCRT23/1826
Sound Level Meter (SLM)	IEC 61260-1:2014	19 Jun 2023	19 Jun 2025	UCRT23/1806
Sound Level Meter (SLM)	IEC 61260-1:2014	04 May 2023	03 May 2025	UCRT23/1624
Tapper Machine	BS EN ISO 140-7:1998 Annex A	04 May 2023	03 May 2025	UCRT23/1561
Sound Level Meter (SLM)	IEC 61260-1:2014	27 Mar 2023	26 Mar 2025	UCRT23/1415
Tapper Machine	BS EN ISO 140-7:1998 Annex A	24 Mar 2023	23 Mar 2025	UCRT23/1413
Calibrator	IEC 60942:2017	27 Sep 2023	26 Sep 2024	UCRT23/2233
Calibrator	IEC 60942:2017	11 Sep 2023	10 Sep 2024	UCRT23/2159
Calibrator	IEC 60942:2017	25 Aug 2023	25 Aug 2024	UCRT23/2116
Sound Level Meter (SLM)	IEC 61260-1:2014	22 Jul 2022	22 Jul 2024	UCRT22/1929
Tapper Machine	BS EN ISO 140-7:1998 Annex A	21 Jul 2022	21 Jul 2024	UCRT22/1927
Calibrator	IEC 60942:2017	16 Jun 2023	16 Jun 2024	UCRT23/1799
Calibrator	IEC 60942:2017	04 May 2023	03 May 2024	UCRT23/1589
Calibrator	IEC 60942:2017	24 Mar 2023	23 Mar 2024	UCRT23/1414

Detailed Test Results

Airborne floor Tests – Material Change of Use by Cristi Vasilache

Certificate Number	Plot & Source Room	Source Room Volume (m ³)	Plot & Receive Room	Receive Room Volume (m ³)	Target $D_{nT,w}+C_{tr}$ (dB)	Result $D_{nT,w}+C_{tr}$ (dB)	Result
141838	Flat top flat Bedroom 1	25.0m ³	Flat bottom flat Bedroom 1	17.0m ³	≥ 43 dB	51 dB	Pass
Construction: Generic Timber Joist: suspended timber floor							
Deviations: Receive Room under 25m ³ , 6dB Rule not met							
141839	Flat top flat Bedroom 2	33.0m ³	Flat bottom flat Bedroom 2	22.0m ³	≥ 43 dB	53 dB	Pass
Construction: Generic Timber Joist: suspended timber floor							
Deviations: Receive Room under 25m ³ , 6dB Rule not met							

Impact floor Tests – Material Change of Use by Cristi Vasilache

Certificate Number	Plot & Source Room	Source Room Volume (m ³)	Plot & Receive Room	Receive Room Volume (m ³)	Target $L'_{nT,w}$ (dB)	Result $L'_{nT,w}$ (dB)	Result
141840	Flat top flat Bedroom 1	25.0m ³	Flat bottom flat Bedroom 1	17.0m ³	≤ 64 dB	53 dB	Pass
	Construction: Generic Timber Joist: suspended timber floor						
	Deviations: Receive Room under 25m ³ , 6dB Rule not met						
141841	Flat top flat Bedroom 2	33.0m ³	Flat bottom flat Bedroom 2	22.0m ³	≤ 64 dB	49 dB	Pass
	Construction: Generic Timber Joist: suspended timber floor						
	Deviations: Receive Room under 25m ³ , 6dB Rule not met						

Appendix A – Individual Certificates

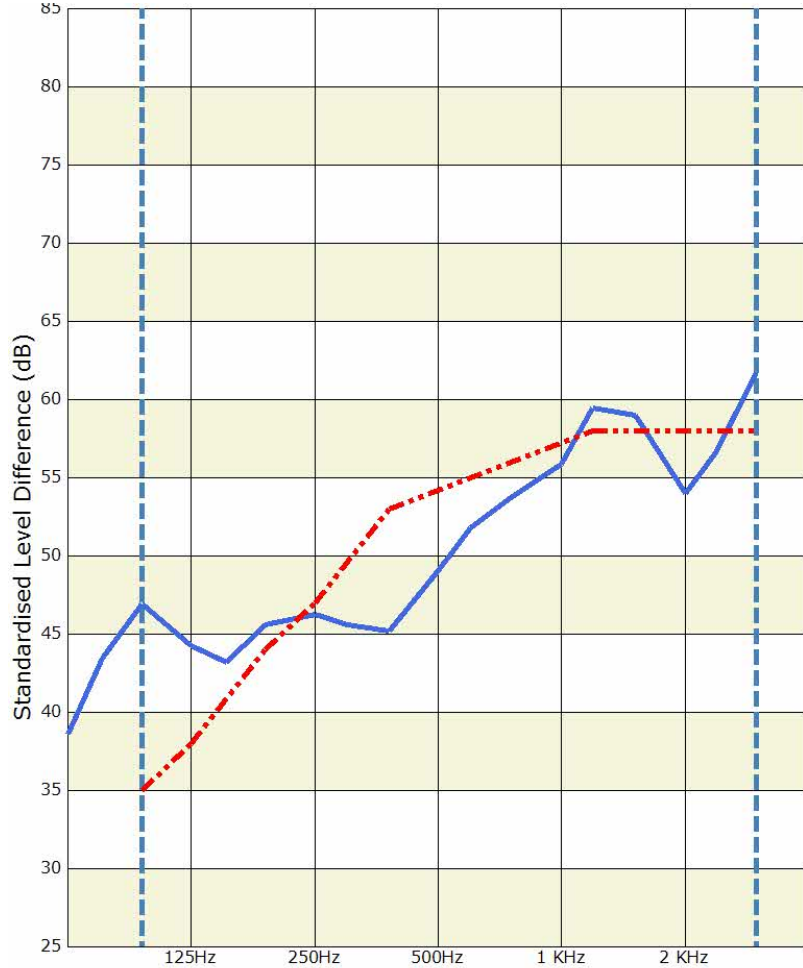
Test Type	Source Room	Partition	Receiver Room
Airborne sound insulation	Flat top flat Bedroom 1	FT0001**	Flat bottom flat Bedroom 1
Airborne sound insulation	Flat top flat Bedroom 2	FT0001**	Flat bottom flat Bedroom 2
Impact sound insulation	Flat top flat Bedroom 1	FT0001**	Flat bottom flat Bedroom 1
Impact sound insulation	Flat top flat Bedroom 2	FT0001**	Flat bottom flat Bedroom 2

Registered Sound Insulation Test Certificate

Test No:	141838	Test Job Ref:	32504	Test Org Name:	ATSPACE Ltd
Customer:	Ashley Blum		Test Type:	Airborne (Floor)	
Address:	69 Pennine Drive, , London	Job Address:	69 Pennine Drive, , London	Test Date:	30/01/2024
				Tester:	Cristi Vasilache
				Site type:	Material Change of Use
Postcode:	NW2 1NR	Postcode:	NW2 1NR	Site Build:	Dwelling-House/Flat
	Source Room:	Partition:	Receiver Room:		
Description:	Flat top flat Bedroom 1	FT0001**	Flat bottom flat Bedroom 1		
Volume / Area	25.0m ³	7.0m ²	17.0m ³		

Frequency (Hz)	D_{nT}	Correction
50	48	
63	38.6	
80	43.5	
100	46.9	
125	44.3	
160	43.2	
200	45.6	
250	46.3	
315	45.6	
400	45.2	
500	49.1	
630	51.8	
800	53.8	
1	55.9	
1.25	59.5	
1.6	59	
2	54	
2.5	56.6	
3.15	61.7	
4	0	
5	0	

Evaluation based on field measurement using results obtained by an engineering method



1/3rd Octave Band Frequency (Hz)

*Outside scope of accreditation

Above graph shows frequency range according to the curve of reference values within BS EN ISO 717-1

$D_{nT,w}$ (C; C_{tr}) [dB]: 54 (-1, -3) dB
 $D_{nT,w} + C_{tr}$ [dB]: 51 dB
 Minimum Pass Level [dB]: 43 dB

PASS
 Adverse Aggregated Deviations [dB]: 29.7

Partition Detail: suspended timber floor

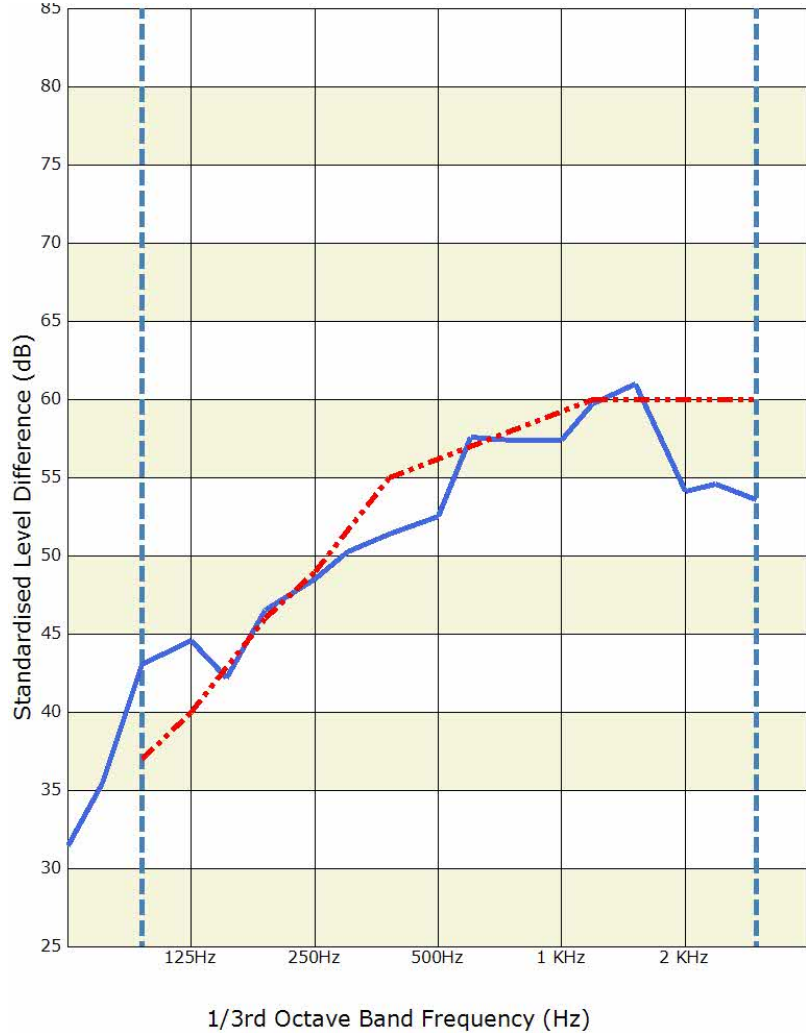
Test Exceptions (if any): Receive Room under 25m³, 6dB Rule not met

AIRBORNE SOUND INSULATION TEST: Approved Document E (2003) including 2004, 2010, 2013, and 2015 Amendments
 BS EN ISO 140 - Part 4:1998: Acoustics - measurement of sound in buildings and of building elements
 BS EN ISO 717 - Part 1:1997: Acoustics - rating of sound in buildings and of building elements

Registered Sound Insulation Test Certificate

Test No:	141839	Test Job Ref:	32504	Test Org Name:	ATSPACE Ltd
Customer:	Ashley Blum		Test Type:	Airborne (Floor)	
Address:	69 Pennine Drive, , London	Job Address:	69 Pennine Drive, , London	Test Date:	30/01/2024
				Tester:	Cristi Vasilache
				Site type:	Material Change of Use
Postcode:	NW2 1NR	Postcode:	NW2 1NR	Site Build:	Dwelling-House/Flat
	Source Room:	Partition:	Receiver Room:		
Description:	Flat top flat Bedroom 2	FT0001**	Flat bottom flat Bedroom 2		
Volume / Area	33.0m ³	11.0m ²	22.0m ³		

Frequency (Hz)	D_{nT}	Correction
50	25.4	
63	31.5	
80	35.5	
100	43.1	
125	44.6	
160	42.2	
200	46.5	
250	48.5	
315	50.3	
400	51.4	
500	52.5	
630	57.6	
800	57.4	
1	57.4	
1.25	59.7	
1.6	61	
2	54.1	
2.5	54.6	
3.15	53.6	
4	0	
5	0	



Evaluation based on field measurement using results obtained by an engineering method

*Outside scope of accreditation

Above graph shows frequency range according to the curve of reference values within BS EN ISO 717-1

$D_{nT,w}$ (C; C_{tr}) [dB]: 56 (-2, -3) dB
 $D_{nT,w} + C_{tr}$ [dB]: 53 dB
 Minimum Pass Level [dB]: 43 dB

PASS
 Adverse Aggregated Deviations [dB]: 30.3

Partition Detail: suspended timber floor

Test Exceptions (if any): Receive Room under 25m³, 6dB Rule not met

AIRBORNE SOUND INSULATION TEST: Approved Document E (2003) including 2004, 2010, 2013, and 2015 Amendments
 BS EN ISO 140 - Part 4:1998: Acoustics - measurement of sound in buildings and of building elements
 BS EN ISO 717 - Part 1:1997: Acoustics - rating of sound in buildings and of building elements

Registered Impact Test Certificate

Test No:	141840	Test Job Ref:	32504	Test Org Name:	ATSPACE Ltd
Customer:	Ashley Blum		Test Type:	Impact (Floor)	
Address:	69 Pennine Drive, , London	Job Address:	69 Pennine Drive, , London	Test Date:	30/01/2024
				Tester:	Cristi Vasilache
				Site type:	Material Change of Use
Postcode:	NW2 1NR	Postcode:	NW2 1NR	Site Build:	Dwelling-House/Flat
	Source Room:	Partition:	Receiver Room:		
Description:	Flat top flat Bedroom 1	FT0001**	Flat bottom flat Bedroom 1		
Volume / Area	25.0m ³	7.0m ²	17.0m ³		

Frequency (Hz)	L _{nT} 1/3 Octave (dB)	Correction
50	70.2	
63	67.7	
80	63.2	
100	65.2	
125	62.2	
160	57.2	
200	59.8	
250	58.7	
315	53.2	
400	48.5	
500	43.8	
630	39.3	
800	34.6	
1	30.5	
1.25	28.3	
1.6	28.2	
2	32.2	
2.5	31	
3.15	26.4	
4	0	
5	0	

Evaluation based on field measurement using results obtained by an engineering method



1/3rd Octave Band Frequency (Hz)

*Outside scope of accreditation

Above graph shows frequency range according to the curve of reference values within BS EN ISO 717-2

L_{nT,w} (CI) [dB]: 53 (1) dB
Maximum Pass Level [dB]: 64 dB

PASS
Adverse Aggregated Deviations [dB]: 28.1

Partition Detail: suspended timber floor

Test Exceptions (if any): Receive Room under 25m³, 6dB Rule not met

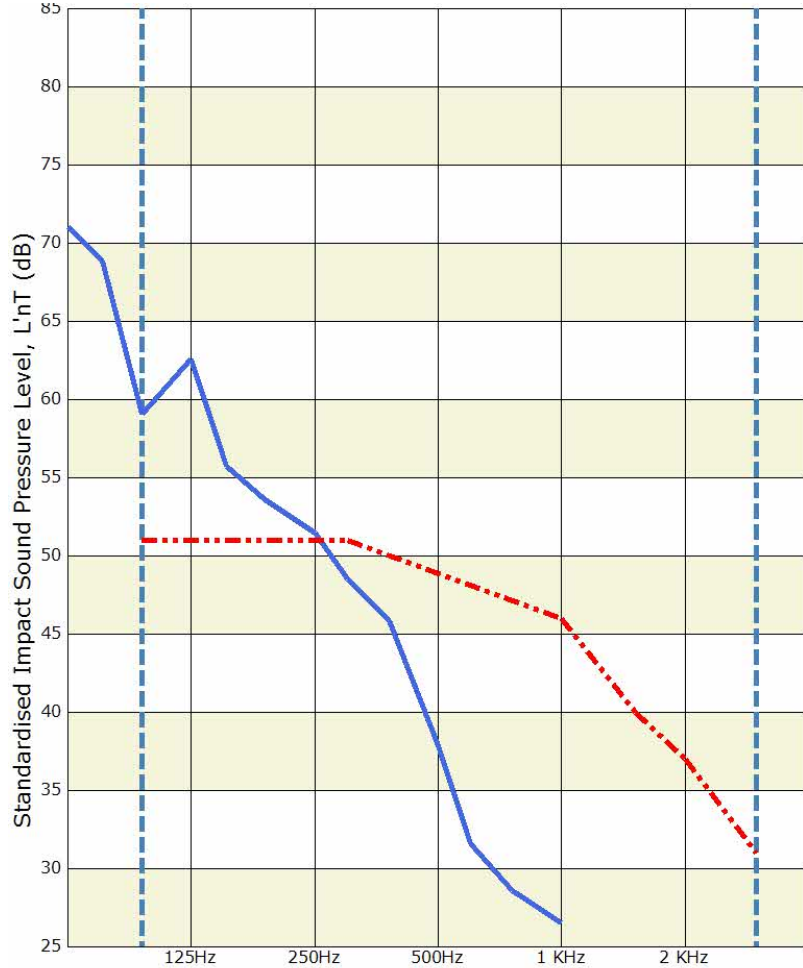
IMPACT SOUND INSULATION TEST: Approved Document E (2003) including 2004, 2010, 2013, and 2015 Amendments
BS EN ISO 140 - Part 7:1998: Acoustics - measurement of sound in buildings and of building elements
BS EN ISO 717 - Part 2:1997: Acoustics - rating of sound in buildings and of building elements

Registered Impact Test Certificate

Test No:	141841	Test Job Ref:	32504	Test Org Name:	ATSPACE Ltd
Customer:	Ashley Blum		Test Type:	Impact (Floor)	
Address:	69 Pennine Drive, , London	Job Address:	69 Pennine Drive, , London	Test Date:	30/01/2024
				Tester:	Cristi Vasilache
				Site type:	Material Change of Use
Postcode:	NW2 1NR	Postcode:	NW2 1NR	Site Build:	Dwelling-House/Flat
	Source Room:	Partition:	Receiver Room:		
Description:	Flat top flat Bedroom 2	FT0001**	Flat bottom flat Bedroom 2		
Volume / Area	33.0m ³	11.0m ²	22.0m ³		

Frequency (Hz)	L _{nT} 1/3 Octave (dB)	Correction
50	59	
63	71.1	
80	68.9	
100	59.1	
125	62.6	
160	55.7	
200	53.6	
250	51.5	
315	48.5	
400	45.9	
500	37.9	
630	31.6	X
800	28.6	X
1	26.5	X
1.25	21.5	X
1.6	21.3	X
2	25.9	
2.5	21.3	X
3.15	16.4	X
4	0	
5	0	

Evaluation based on field measurement using results obtained by an engineering method



1/3rd Octave Band Frequency (Hz)

*Outside scope of accreditation

Above graph shows frequency range according to the curve of reference values within BS EN ISO 717-2

L_{nT,w} (CI) [dB]: 49 (1) dB
Maximum Pass Level [dB]: 64 dB

PASS
Adverse Aggregated Deviations [dB]: 27.5

Partition Detail: suspended timber floor

Test Exceptions (if any): Receive Room under 25m³, 6dB Rule not met

IMPACT SOUND INSULATION TEST: Approved Document E (2003) including 2004, 2010, 2013, and 2015 Amendments
BS EN ISO 140 - Part 7:1998: Acoustics - measurement of sound in buildings and of building elements
BS EN ISO 717 - Part 2:1997: Acoustics - rating of sound in buildings and of building elements

Appendix B – UKAS Calibration Certificates