





SOUND INSULATION TEST REPORT

Sound Insulation testing in accordance with Test Standards BS EN ISO 140-4 & BS EN ISO 140-7

Report Reference Number: 30670

Report Date: 02/10/2023

Abstract

Sound Insulation Testing is the process of measuring how much noise a building element, normally a wall or a floor, stops from travelling through to a neighbouring property.

This report describes the process taken and the results obtained from the sound insulation testing at 141-147 High Street, Brentwood, Essex, CM14 4SA.

Competent Tester

Testing was conducted by Shams Ahmadi who is a member of the SITMA Sound Insulation Testing Registered Testers Scheme, Registration Number: 7143

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The SITMA Registered Testers' Scheme

This report was conducted by a tester that is registered with the SITMA Registered Testers' Scheme for Sound Insulation Testers. More information on the scheme, the lodgement system, quality control and auditing are discussed below.

Scheme Member Conducting this test

| The tester that conducted your testing was: | Shams Ahmadi | |
|---|--|--|
| Linked to: | Eecobuild Ltd, C/O Project H Ltd Beadle House, Bull Plain, Hertford, SG14 1DT. | |

Entry Requirements

In order to enter the SITMA Registered Testers' Scheme, testers are required to either:

- Have completed the Institute of Acoustics Certificate of Competence in Building Acoustics Measurements (CCBAM), or
- \cdot Have been assessed by SITMA to hold suitable, demonstrable evidence of competence in sound insulation testing

Audit Requirements

Each tester is audited at least once per year, which may be unannounced in accordance with SITMA Document PUS012. This is achieved by the tester logging their job onto the SITMA portal **in advance** of testing taking place.

Audits are carried out by independent SITMA employees who have been trained in accordance with BS EN ISO 19011:2018 and have extensive background in Sound Insulation Testing. Each 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 take pre-calculated information, it takes the raw data from the sound level meter and calculates each individual test itself, before producing this report. This ensures that no test data has been amended by any tester prior to the information being uploaded.

SITMA Accreditation

SITMA will shortly have achieved BS EN ISO/IEC 17024:2012 accreditation from UKAS (Application number 10579). SITMA has completed the Initial Audit and is awaiting final confirmation.

Calibration Requirements

SITMA holds some of the strictest calibration requirements in the world for sound insulation testing, with each sound level meter and tapping machine requiring UKAS calibration every 2 years and the microphone calibrator requiring calibration every 12 months. If the tester does not hold correctly calibrated equipment, the SITMA portal will not let them produce this report.

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 registered testers' scheme in line with our complaints process PUS013.



TO CHECK THIS REPORT IS VALID

- Head to this site: 1. https://sitma.bcta.group/
- 2. Use these credentials:
 - a. Report Reference Number:
 - i. 30670 b.
 - Job Postcode:
 - i. CM14 4SA



Simplified Test Results

| Certificate | Plot & | Plot & | Target | Result | Pass / Fail |
|-------------|-------------|------------------|----------------------|-------------------|--------------|
| Number | Source | Receive Room | $D_{n\tau,w}+C_{tr}$ | $D_{nT,w}+C_{tr}$ | 1 455 / 1 41 |
| Ramoor | Room | | or L'nT,w(dB) | or L'nT,w(dB) | |
| 130155 | Flat 5 | Flat 4 Kitchen / | >= 45 | 56 | PASS |
| | Kitchen / | Dining Room | | | |
| | Dining Room | 5 | | | |
| 130156 | Flat 16 | Flat 17 | >= 45 | 57 | PASS |
| | Kitchen / | Bedroom 2 | | | |
| | Dining Room | | | | |
| 130157 | Flat 3 | Flat 4 Bedroom | >= 45 | 54 | PASS |
| | Kitchen / | 1 | | | |
| | Dining Room | | | | |
| 130158 | Flat 15 | Flat 16 | >= 45 | 57 | PASS |
| | Bedroom 2 | Bedroom 2 | | | |
| 130159 | Flat 16 | Flat 12 Kitchen | >= 45 | 56 | PASS |
| | Kitchen / | / Dining Room | | | |
| | Dining Room | | | | |
| 130160 | Flat 17 | Flat 13 Kitchen | >= 45 | 60 | PASS |
| | Kitchen / | / Dining Room | | | |
| | Dining Room | | | | |
| 130161 | Flat 8 | Flat 3 Kitchen / | >= 45 | 57 | PASS |
| | Kitchen / | Dining Room | | | |
| | Dining Room | | | | |
| 130162 | Flat Room | Flat 3 Kitchen / | >= 45 | 56 | PASS |
| | Commercial | Dining Room | | | |
| | Space | | | | |
| 130163 | Flat 17 | Flat 13 Kitchen | <= 62 | 42 | PASS |
| | Kitchen / | / Dining Room | | | |
| | Dining Room | | | | |
| 130164 | Flat 9 | Flat 4 Kitchen / | <= 62 | 45 | PASS |
| | Kitchen / | Dining Room | | | |
| 100107 | Dining Room | | | | |
| 130165 | Flat 16 | Flat 12 Kitchen | <= 62 | 41 | PASS |
| | Kitchen / | / Dining Room | | | |
| 100100 | Dining Room | | | | 5100 |
| 130166 | Flat 8 | Flat 3 Kitchen / | <= 62 | 41 | PASS |
| | Kitchen / | Dining Room | | | |
| 400407 | Dining Room | | 45 | | D 400 |
| 130167 | Flat Room | Flat 4 Kitchen / | >= 45 | 55 | PASS |
| | Commercial | Dining Room | | | |
| 400470 | Space | | | | DAGO |
| 130170 | Flat 9 | Flat 4 Kitchen / | >= 45 | 54 | PASS |
| | Kitchen / | Dining Room | | | |
| | Dining Room | | | | |

Testing Methodology

Airborne Sound Insulation Tests

Measurements of Standardised Level Difference $(D_n r)$ were conducted in accordance with BS EN ISO 140-4:1998.

Level measurements in the Source & Receive Rooms (L1 & L2)

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



The noise level was measured in both the source room and receive room, sampling as much of the room as possible. 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 average time of 30 seconds The speaker was then moved to a corner junction on two internal walls and the measurements were repeated. The measurements in each room were arithmetically averaged. For separating walls the speaker should be in a corner opposite the test wall.

Background Measurements in Receive Room (L_b)

Where noise levels were measured in the receive room, the background noise level was also measured with the source room speaker turned off 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 (T2, T20)

A minimum of 6 reverberation time measurements were also taken in the receive room to accurately define the level of influence the diffuse field has on the microphone, ensuring that an increase in soft or hard surfaces does not impact the overall test result.

A minimum of 6 reverberation times were measured in each room using a minimum of 3 microphone positions at each of 2 loudspeaker positions in accordance with BS EN ISO 354:2003 (also complies with BS EN 20354:1993)

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 steel hammers to produce impact noise 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 2 microphone positions at one-third octave band intervals from 100 to 3150 Hertz using an average time of at least 6 seconds for each of 4 tapping machine positions, creating 8 individual measurement readings.

Measurements were always taken at least 0.7m away from any reflective or absorptive surfaces.

Background Measurements in Receive Room (L_b)

Where noise levels were measured in the receive room, the background noise level was also 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 (T2, T20)

A minimum of 6 reverberation times were measured in each room using a minimum of 3 microphone positions at each of 2 loudspeaker positions in accordance with BS EN ISO 354:2003 (also complies with BS EN 20354:1993)

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.



Calculation Methodology

Airborne Sound Insulation Tests

Background Noise Correction ('Corrected L₂')

Any receive room noise measurements (L2) that are within 6dB of the background measurements (Lb) are corrected by adding 1.3 to receive room noise measurement.

Where the background measurement is less than 6dB but greater than 10dB of the receive room noise measurement, a correction is applied as per BS EN ISO 140-4:1998 section 6.6 for airborne tests and/or BS EN ISO-7:1998 Section 5.6 for impact tests.

Level Difference ('D')

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

Standardised Level Difference ('*D*_n*r*')

The result is 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 (DnT) at each frequency. These are calculated separately for Speaker Position 1 and Speaker Position 2 and are arithmetically averaged to produce the final DnT.

Weighted Standardized Level Difference ('*D*_{n*T*,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_{n7,w} + C;C_w')

The spectrum adaptation terms (C;C_{ir}) 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

Background Noise Correction ('Corrected L₂')

Any receive room noise measurements (L 2) that are within 6dB of the background measurements (Lb) are corrected by adding 1.3 to receive room noise measurement. The correction is applied up to 10dB, where a maximum correction of 1.6dB is applied. Any background noise level greater than 10dB over the L_2 measurement will appear to reduce the sound insulation at that frequency.

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

The result is standardized by adding 10 times the logarithm the reverberation time at each frequency, divided by 0.5 to the 'corrected' L2 to give the Standardized Impact Sound Pressure Level (L'_{nT}) at each frequency.

Weighted Standardized Impact Sound Pressure Level ('L'_{n7}')

The L'_{n7} are then compared to the standard reference curve as defined in BS EN ISO 717-2:1997 to give a single figure result.

Precision

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



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.

ADE requires that sets of tests are carried out on one in ten of each construction type or sub-group. Each set of tests on houses is made up of two airborne sound insulation tests (Two Tests). Each set of tests on flats is made up of two airborne tests on walls and two airborne and two impact tests on floors (Six Tests).

The location of the sets of tests are selected at random by the tester except where specifically requested the Approved Inspector or specialist input from Robust Details.

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 testers 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 EN ISO 140-14:2004 which all testers hold a copy of as a mandatory entry requirement into the SITMA 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.

Calibration

Calibration

The calibration certificates are appended to this report under Appendix B. The summary of calibrated equipment used is shown below:

| Item | Calibration from | Calibration expiry | Certificate Number |
|----------|------------------|--------------------|--------------------|
| Kit 2.2 | 20 Apr 2022 | 19 Apr 2024 | U40756 |
| Kit 2.22 | 02 Mar 2023 | 02 Mar 2024 | UCRT23/1275 |
| Kit 2.2 | 19 Apr 2022 | 18 Apr 2024 | U40752 |



Test Results

Airborne Wall Tests – New Build by Shams Ahmadi

| Certificate Number | Plot & Source Room | Source Room Volume | Plot & Receive Room | Receive Room Volume | Target Dո⊤,ա+Cւ | Result D _{n7,w} +Ctr | Pass / Fail | | | | |
|-----------------------|---|--------------------------|---------------------------------------|---------------------------|--------------------|----------------------------------|-------------|--|--|--|--|
| 130155 | Flat 5 Kitchen / Dining Room | 55.0m ³ | Flat 4 Kitchen / Dining Room | 55.0m³ | >= 45 dB | 56 dB | Pass | | | | |
| | Construction: Generic Masonary Block: WB0001** : Generic Masonary Block Deviations: | | | | | | | | | | |
| 130156 | 6dB Rule no Flat 16 Kitchen / Dining Room | 55.0m ³ | Flat 17 Bedroom 2 | 27.0m ³ | >= 45 dB | 57 dB | Pass | | | | |
| | Construction: Generic Masonary Block: WB0001** : Generic Masonary Block Deviations: | | | | | | | | | | |
| 130157 | Flat 3 Kitchen / Dining Room | 55.0m³ | Flat 4 Bedroom 1 | 27.0m ³ | >= 45 dB | 54 dB | Pass | | | | |
| | Construction: Generic Masonary Block: WB0001** : Generic Masonary Block | | | | | | | | | | |
| | Deviations: 6dB Rule not met | | | | | | | | | | |
| 130158 | Flat 15 Bedroom 2 | 29.0m ³ | Flat 16 Bedroom 2 | 29.0m ³ | >= 45 dB | 57 dB | Pass | | | | |
| | Construction Generic Ma | sonary Block | : WB0001** | : Generic Ma | sonary Block | | | | | | |
| | 6dB Rule no | | | | | | | | | | |



Airborne floor Tests – New Build by Shams Ahmadi

| Certificate Number | Plot & Source Room | Source Room Volume | Plot & Receive Room | Receive Room Volume | Target Dn7,w+Ctr | Result D₀ _{7,w} +Ctr | Pass / Fail | | | | | |
|-----------------------|--|--------------------------|--|---------------------------|---------------------|----------------------------------|-------------|--|--|--|--|--|
| 130159 | Flat 16 Kitchen / Dining Room | 55.0m³ | Flat 12 Kitchen / Dining Room | 55.0m ³ | >= 45 dB | 56 dB | Pass | | | | | |
| | Construction: | | | | | | | | | | | |
| | Generic Concrete: FC0001** : Generic Concrete Deviations: | | | | | | | | | | | |
| 130160 | Flat 17 Kitchen / Dining Room | 55.0m³ | Flat 13 Kitchen / Dining Room | 55.0m³ | >= 45 dB | 60 dB | Pass | | | | | |
| | Construction: | | | | | | | | | | | |
| | Generic Concrete: FC0001** : Generic Concrete Deviations: | | | | | | | | | | | |
| | Deviations: | | | | | | | | | | | |
| 130161 | Flat 8 Kitchen / Dining Room | 55.0m³ | Flat 3 Kitchen / Dining Room | 55.0m ³ | >= 45 dB | 57 dB | Pass | | | | | |
| | Constructio | on: | | 1 | | | | | | | | |
| | | | 01** : Gener | ic Concrete | | | | | | | | |
| | Deviations: | | | | | | | | | | | |
| 130162 | Flat Room Commercia | | Flat 3 Kitchen / Dining | 55.0m ³ | >= 45 dB | 56 dB | Pass | | | | | |
| | Space | | Room | | | | | | | | | |
| | Construction: Generic Concrete: FC0001** : Generic Concrete | | | | | | | | | | | |
| | Deviations: | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 130167 | | 820.0m ³ | Flat 4 Kitchen / | 55.0m ³ | >= 45 dB | 55 dB | Pass | | | | | |
| | Commercia | | Dining | | | | | | | | | |
| | Space Room Construction: | | | | | | | | | | | |
| | | | 01** : Gener | ic Concrete | | | | | | | | |
| | Generic Concrete: FC0001** : Generic Concrete Deviations: | | | | | | | | | | | |
| 130170 | Flat 9 Kitchen / Dining | 55.0m ³ | Flat 4 Kitchen / Dining | 55.0m ³ | >= 45 dB | 54 dB | Pass | | | | | |
| | Room Constructio | n. | Room | | | | | | | | | |
| | | | 01** : Gener | ic Concrete | | | | | | | | |
| | Deviations: | | | | | | | | | | | |
| | | | | | | | | | | | | |



Impact floor Tests – New Build by Shams Ahmadi

| Certificate Number | Plot & Source Room | Source Room Volume | Plot & Receive Room | Receive Room Volume | Target <i>L</i> ΄ _{nτ,w} | Result L′ոτ,w | Pass / Fail | | | | |
|-----------------------|--|---|--|---------------------------|--------------------------------------|------------------|-------------|--|--|--|--|
| 130163 | Flat 17 Kitchen / Dining Room | 55.0m³ | Flat 13 Kitchen / Dining Room | 55.0m³ | <= 62 dB | 42 dB | Pass | | | | |
| | Constructi Generic Co Deviations | ncrete: FC00 |)01** : Gener | ic Concrete | | | | | | | |
| | Deviations | • | | | | | | | | | |
| 130164 | Flat 9 Kitchen / Dining Room | 55.0m ³ | Flat 4 Kitchen / Dining Room | 55.0m ³ | <= 62 dB | 45 dB | Pass | | | | |
| | Constructi | - | | | | | · | | | | |
| | | Generic Concrete: FC0001** : Generic Concrete Deviations: | | | | | | | | | |
| | | | | | | | | | | | |
| 130165 | Flat 16 Kitchen / Dining Room | 55.0m ³ | Flat 12 Kitchen / Dining Room | 55.0m ³ | <= 62 dB | 41 dB | Pass | | | | |
| | Construction: Generic Concrete: FC0001** : Generic Concrete | | | | | | | | | | |
| | Deviations | : | | | | | | | | | |
| 130166 | Flat 8 Kitchen / Dining Room | 55.0m³ | Flat 3 Kitchen / Dining Room | 55.0m³ | <= 62 dB | 41 dB | Pass | | | | |
| | Constructi | - | | ! | | -! | | | | | |
| | | | 01** : Gener | ic Concrete | | | | | | | |
| | Deviations | : | | | | | | | | | |



Appendix A – Individual Certificates

| Test Type | Source Room | Partition | Receiver Room |
|------------------------------|----------------------------------|-----------|----------------------------------|
| Airborne sound insulation | Flat 5 Kitchen / Dining Room | WB0001** | Flat 4 Kitchen / Dining Room |
| Airborne sound insulation | Flat 16 Kitchen / Dining Room | WB0001** | Flat 17 Bedroom 2 |
| Airborne sound insulation | Flat 3 Kitchen / Dining Room | WB0001** | Flat 4 Bedroom 1 |
| Airborne sound insulation | Flat 15 Bedroom 2 | WB0001** | Flat 16 Bedroom 2 |
| Airborne sound insulation | Flat 16 Kitchen / Dining Room | FC0001** | Flat 12 Kitchen / Dining Room |
| Airborne sound insulation | Flat 17 Kitchen / Dining Room | FC0001** | Flat 13 Kitchen / Dining Room |
| Airborne sound insulation | Flat 8 Kitchen / Dining Room | FC0001** | Flat 3 Kitchen / Dining Room |
| Airborne sound insulation | Flat Room Commercial Space | FC0001** | Flat 3 Kitchen / Dining Room |
| Airborne sound insulation | Flat Room Commercial Space | FC0001** | Flat 4 Kitchen / Dining Room |
| Airborne sound insulation | Flat 9 Kitchen / Dining Room | FC0001** | Flat 4 Kitchen / Dining Room |
| Impact sound insulation | Flat 17 Kitchen / Dining Room | FC0001** | Flat 13 Kitchen / Dining Room |
| Impact sound insulation | Flat 9 Kitchen / Dining Room | FC0001** | Flat 4 Kitchen / Dining Room |
| Impact sound insulation | Flat 16 Kitchen / Dining Room | FC0001** | Flat 12 Kitchen / Dining Room |
| Impact sound insulation | Flat 8 Kitchen / Dining Room | FC0001** | Flat 3 Kitchen / Dining Room |

SITNA

Registered Sound Insulation Test Certificate

| Test No: | 13015 | | Test J | ob Ref: | 30670 | | | rg Name: | Eecobu | |
|---|------------|-----------------------------|-------------------|---------|-----------------------------|---------|----------------------|---------------------------|-------------------------|-------------|
| Customer: | YSJ01 | | | | | | Test Ty | | Airborne (Wall) | |
| Address: | | ne Gate, | Job Ad | ddress: | 141-147 | High | Test Da | | 30/09/2 | |
| | Pinne | gh Street, r | | | Street, Brentwo Essex | od, | Tester: Site ty | | Shams New Bu | |
| Postcode: | HA5 5 | δQA | Postco | ode: | CM14 45 | SA | Site Bu | uild: | Dwelling- House/Flat | |
| | | Source | Room: | | Parti | ition: | | Receiv | er Room: | iat |
| Description: | Fla | at 5 Kitchen | / Dinin | g Room | WBOO | 001** | Flat | t 4 Kitcher | n / Dining | Room |
| Volume / Area | | | Dm ³ | 0 | 7.0 |)m² | | | .0m ³ | |
| Frequency | D_{nT} | Correction | 85 | | | 1 | | | | |
| (Hz) 50 | 22.6 | х | - 80 | 1 | | | | | | i |
| 63 | 35.9 | | 00 | | | | | | | |
| 80 | 35.4 | | 75 | | | | | | ~ | |
| 100 | 40.7 | | _ | | | | | | | |
| 125 | 42.2 | | 70 | | | - | | | | |
| 160 | 46.9 | | _ | | | | | | | |
| 200 | 48.2 | | 65 | | | | 1 | | | |
| 250 | 52.9 | | (dB) | | | | 1 | | | |
| 315 | 56.9 | | 8 60 | | | | | | | - |
| 400 | 62.3 | | eren | | | 11 | | | | |
| 500 | 67.2 | | Difference | | 1 | | | | | |
| 630 | 70.1 | Х | - Level 20 | | 1 | | | | | |
| 800 | 71.8 | Х | <mark>ع</mark> 50 | | | | | | | |
| 1 | 73.4 | Х | sed | i., | | | | | | |
| 1.25 | 73.5 | Х | Standardised L | | | | | | | |
| 1.6 | 76 | Х | nda | | 1 | | | | | |
| 2 | 75.3 | Х | _ pj 40 | j j | | | | | | i |
| 2.5 | 71.6 | Х | | | | | | | | i |
| 3.15 | 72 | Х | 35 | | | | | | | |
| 4 | 73.9 | Х | _ | | | | | | | |
| 5 | 72.5 | Х | - 30 | | | | | | | |
| Evaluatio measurem obtained by ar | | results | - 30 | 1 | 25Hz 2 | 250Hz | 500Hz | 1 KHz | 2 K | Ήz |
| | | | | | 1/3rd O | ctave B | and Freat | uency (Hz |) | |
| *0 | utside sco | pe of accred | itation | | Above g | raph sh | ows frequ | uency rang es within l | ge accordi | |
| | | C; Ctr) [dB]: | | | | P | ASS | | | ~ 1 1 7 - 1 |
| Minin | | w+ Ctr [dB]: Level [dB]: | 56 dB 45 dB | | Advers | | egated De]: 27.9 | eviations | | |

Test Exceptions (if any): 6dB Rule not met

Registered Sound Insulation Test Certificate

| Test No: | 1301 | | Test J | ob Ref: | 30670 | | Test Org Name | |
|----------------|------------|--------------------------|-----------------|----------|--------------------|-----------|-----------------------|--|
| Customer: | YSJ0 | | lak A | | 1 4 1 4 4 7 | L Li auto | Test Type: | Airborne (Wall) |
| Address: | | rne Gate, igh Street, | OA GUL | dress: | 141-147 Street, | нıgn | Test Date: Tester: | 30/09/2023 Shams Ahmadi |
| | Pinne | | | | Brentwoo Essex | od, | Site type: | New Build |
| Postcode: | HA5 | 5QA | Postco | ode: | CM14 4S | A | Site Build: | Dwelling- House/Flat |
| | | Source | Room: | | Partit | ion: | Rece | eiver Room: |
| Description: | Fla | at 16 Kitchen | | ng Room | WB00 | | | 7 Bedroom 2 |
| Volume / Area | | 55.0 | | 14 M 20 | 8.5 | m² | | 27.0m ³ |
| Frequency | D_{nT} | Correction | 85 | | | | | |
| (Hz) | 16.2 | Х | | 1 | | | | i |
| 50 | | | - 80 | | | | | |
| 63 | 28.9 | | _ | 1 | | | | |
| 80 | 42.7 | | 75 | | | - | | |
| 100 | 44.5 | | _ | i (| | | | |
| 125 | 45.6 | | 70 | | | | | |
| 160 | 45.1 | | E and A and | | | | | |
| 200 | 48.9 | | - 65 | | | 4 | | |
| 250 | 51.4 | | dB) | | | | -1- | |
| 315 | 53.2 | | Difference (dB) | | | 1 | | |
| 400 | 60.4 | Х | rend | ļ. | | 11 | <i>.</i> | |
| 500 | 65.7 | Х | - JI 55 | i | | | | i |
| 630 | 67.1 | Х | | | 1 | | | |
| 800 | 66.6 | Х | evel 20 | | 11 | | | |
| 1 | 67.1 | Х | Standardised L | | 11 | | | |
| 1.25 | 69.5 | Х | | | | | | |
| 1.6 | 70.8 | Х | lda | | | | | |
| 2 | 70.6 | Х | | <u> </u> | | | | i |
| 2.5 | 72.7 | Х | - | 11 | | | | |
| 3.15 | 71.9 | Х | - 35 | | | | | |
| 4 | 72.9 | Х | - | | | | | |
| 5 | 70.6 | Х | 264 | / i | | | | |
| Evaluatio | | | 30 | | | | | |
| measurem | | | | i | | | | i |
| obtained by ar | n enginee | ring method | 25 | | | | | |
| | | | 25 | 1. | 25Hz 2 | 50Hz | 500Hz 1 H | KHz 2 KHz |
| | | | | | 1/3rd Oc | tave Ba | nd Frequency (I | Hz) |
| *0 | utside sco | ope of accred | itation | | | | | ange according to th in BS EN ISO 717-1 |
| | D.τ | C; Ctr) [dB]: | 64 (-2 | 7) dB | | | ASS | |
| | | ;w+ Ctr [dB]: | 57 dB | , ,, | Advore | | gated Deviations | \$ |
| Minin | | Level [dB]: | 45 dB | | Auvels | | : 28.9 | د |

Partition Detail: WB0001** : Generic Masonary Block

Test Exceptions (if any):

Registered Sound Insulation Test Certificate

| Test No: | 1301 | | Test J | ob Ref: | 306 | 70 | | | Org Nam | | | Id Ltd |
|---------------------------------|---------------------|---------------------------------|-------------------|---------|-------------|---------|----------------|-------------------|-------------------------|--------------------|-------------------|---------------|
| Customer: | | 1 Ltd | 1-1-0 | .1 | | 4 4 7 1 | P | | Type: | | | e (Wall |
| Address: | | rne Gate, igh Street, | Job Ad | ddress: | 141 Stre | -147 H | ligh | Test Test | Date: | | /09/2 | .023 Ahmad |
| | Pinne | | | | | ntwood | , k | | type: | | ew Bu | |
| Postcode: | HA5 | 5QA | Postco | ode: | | 4 4SA | ۱. | Site | Build: | | velling ouse/F | |
| | | Source | Room: | | | Partiti | | | | eiver Ro | | |
| Description: | | lat 3 Kitchen | | g Room | ١ | VB000 | | | Flat | 4 Bedro | | |
| Volume / Area | | | <u>کھ 2</u> کھ | | | 8.5m | ן ² | | | 27.0m ³ | 3 | |
| Frequency (Hz) 50 | D ητ 16.5 | Correction X | | | | | | | | | | |
| 63 | 25.5 | | - 80 | Í | | | | | | | | İ |
| 80 | 41.2 | | 75 | 1 | | | | | | | | |
| 100 | 38 | | _ /5 | 1 | | | | | | | | 1 |
| 125 | 41.3 | | - 70 | į | | | | | | | | |
| 160 | 41.5 | | - 7570 | | | | | | | | | |
| 200 | 50.3 | | - 65 | 1 | | | | | | | _ | |
| 250 | 52.9 | | (dB) | | | | | | and the second | | | |
| 315 | 58.4 | |) ප_ 60 | | | | | | | | | |
| 400 | 61 | | Difference | 1 | | | F | | | | | |
| 500 | 62.3 | | JII 55 | | | | 1 | | | | | |
| 630 | 62.6 | | - level 20 | 1 | | 11 | 1 | | | | | 1 |
| 800 | 62.5 | | ⁵⁰ کے | | 1 | 1 | | | | | | |
| 1 | 64.2 | | lise | 1 | 1 | | | | | | | |
| 1.25 | 64.1 | | - Standardised L | | 1 | \$ | - | | | | | |
| 1.6 | 64.9 | Х | tan | | | | | | | | | |
| 2 | 64.7 | Х | v 40 | N | / | | | | | | | |
| 2.5 | 65.7 | Х | | 11 | | | | | | | | |
| 3.15 | 67.3 | Х | 35 | | | | | | | | | |
| 4 | 67.3 | Х | 2564 | | | | | | | | | |
| 5 | 65.2 | Х | 30 | | | | | | | - | | |
| Evaluatio | | | | / i | | | | | | | | i |
| measurem | | | 25 | . ! | _ | | | | | | | |
| obtained by ar | n enginee | ering method | 25 | | 125Hz | 25 | 0Hz | 500H | lz 1 | KHz | 2 K | Hz |
| | | | | | | | | | and the second second | 11_N | | |
| | | | | | 252 | | | | equency (| 22684 | | |
| *Outside scope of accreditation | | | | | | | | | equency r alues with | | | |
| | | [C; Ctr) [dB]: | | | | | P | ASS | | | | |
| Minin | | r,w+ Ctr [dB]: S Level [dB]: | 54 dB 45 dB | | A | dverse | Aggre | egated]: 28.3 | Deviatior | IS | | |
| | | | | | | | LaD | ∠U.J | | | | |

Test Exceptions (if any): 6dB Rule not met

Registered Sound Insulation Test Certificate

| Test No: | 13015 | | Test Jo | b Ref: | 30670 | | Test Org Nam | | |
|----------------|------------------|-----------------|----------------|------------|---|---------|-----------------------|--|--|
| Customer: | YSJ01 | | 1.01-0-1 | alma c - | 1 / 1 / 1 / - | 1.111- | Test Type: | Airborne (Wall) | |
| Address: | | ne Gate, | Job Ad | dress: | 141-147 Street, | High | Test Date: Tester: | 30/09/2023 Shams Ahmadi | |
| | Pinne | gh Street, r | | | Brentwoo Essex | od, | Site type: | New Build | |
| Postcode: | HA5 5 | δQA | Postco | de: | CM14 4S | A | Site Build: | Dwelling- House/Flat | |
| | | Source | Room: | | Parti | tion: | Rece | eiver Room: | |
| Description: | | Flat 15 Be | edroom | 2 | WB00 | 01** | Flat 1 | 6 Bedroom 2 | |
| Volume / Area | | 29.0 |)m³ | | 9.0 | m² | | 29.0m ³ | |
| Frequency | D_{nT} | Correction | 85 | | | | | | |
| (Hz) | 28.7 | Х | | | | | | | |
| 50 | | | - 80 | 1 | 2 | | | 1 | |
| 63 | 25 | | | i | | | | | |
| 80 | 26.1 | | 75 | | | | | | |
| 100 | 38 | | | | | | | | |
| 125 | 51.3 | | 70 | | 10 | | | | |
| 160 | 49.7 | | | | | | | | |
| 200 | 53.4 | | - 65 | <u> </u> | | | | | |
| 250 | 55.9 | | (dB) | | | 1 | | | |
| 315 | 59 | | 9 60 | | | 11 | | | |
| 400 | 64.1 | Х | Difference (| | 1 | | | | |
| 500 | 66.5 | Х | JU 55 | | | 4 | | | |
| 630 | 68.1 | Х | e | . <u>i</u> | 11 | | | | |
| 800 | 68.8 | Х | Level 1 | | \sim | | | | |
| 1 | 70.2 | Х | ed | - Y | | | | | |
| 1.25 | 70.5 | Х | | | | | | | |
| 1.6 | 72.7 | Х | dai | i/ | | | | | |
| 2 | 73.9 | Х | Standardised I | - i/ | | | | | |
| 2.5 | 72.8 | Х | 0) 40 | 1 | | | | | |
| 3.15 | 70.9 | Х | 25 | k | | | | | |
| 4 | 71.9 | Х | 35 | 1 | | | | | |
| 5 | 69.4 | Х | | /1 | | | | | |
| | on based o | | 30 | | | | | | |
| measurem | | | | / i | | | | | |
| obtained by ar | n engineer | ing method | 25 | | | | | | |
| | | | | 12 | 5Hz 2 | 50Hz | 500Hz 1 | KHz 2 KHz | |
| | | | | | 1/3rd Oc | tave Ba | and Frequency (| Hz) | |
| *0 | utside sco | pe of accred | itation | | | | | ange according to th in BS EN ISO 717-1 | |
| | Dn <i>t.w</i> ((| C; Ctr) [dB]: | 67 (-4 | , -10) dB | | | ASS | | |
| | | w+ Ctr [dB]: | 57 dB | , | Advers | | | s | |
| Minin | | Level [dB]: | 45 dB | | Adverse Aggregated Deviations [dB]: 29.2 | | | | |

Partition Detail: WB0001** : Generic Masonary Block

Test Exceptions (if any): 6dB Rule not met

Registered Sound Insulation Test Certificate

| Test No: | 1301 | | Test J | ob Ref: | 30670 | | Test Org | | Eecobu | |
|-------------------------------|---|-------------------------|-----------------|----------|--------------------|--|---------------------|----------|-------------------------|--------|
| Customer: | YSJ0 | | lat 1 | - | 1 4 4 4 4 7 | 116-01- | Test Typ | | Airborn | |
| Address: | | rne Gate, gh Street, | OA QUL | dress: | 141-147 Street, | нign | Test Dat Tester: | e: | 30/09/ Shams | |
| | Pinne | | | | Brentwo | od, | Site type | : | New Bu | |
| Postcode: | HA5 ! | δQA | Postco | ode: | CM14 45 | ŝA | Site Build: | | Dwelling- House/Flat | |
| | | Source | Room: | | Parti | tion: | | Receiv | eiver Room: | |
| Description: Volume / Area | | at 16 Kitchen 55.(|)m³ | ng Room | FC00 28.0 | 01** Om² | Flat 1 | | n / Dining .0m³ | g Room |
| Frequency | D_{nT} | Correction | 85 | | | | | Ĩ | | Ĩ |
| (Hz) 50 | 22.8 | Х | - 80 | | | | | | | |
| 63 | 38.9 | Х | - 00 | | | | | | | |
| 80 | 42.2 | Х | - | | | | | | | |
| 100 | 43.4 | Х | - 75 | | | | | | | |
| 125 | 40.5 | | - | | | | - | | 1 | |
| 160 | 44.9 | | - 70 | | | | | | | |
| 200 | 51 | | - 65 | | | | 1 | | | |
| 250 | 52.2 | | | | | | | | | |
| 315 | 58 | | 9 60 | | _ | 1 | | | | |
| 400 | 66 | | enc | | | 11 | | | | |
| 500 | 69.3 | | Difference (dB) | | 1 | | | | | |
| 630 | 70.9 | | | | 100 | 1 | | | | |
| 800 | 70.9 | Х | Fevel 20 | | IF | | | | | |
| 1 | 69.8 | Х | ed | | | | | | | |
| 1.25 | 70.8 | Х | - PL 45 | | | | | | | |
| 1.6 | 72.8 | Х | lda | | | | | | | |
| 2 | 72.7 | Х | Standardised I | | V | | | | | |
| 2.5 | 70.7 | Х | - | | | | | | | |
| 3.15 | 68.3 | Х | - 35 | | | | | | | |
| 4 | 68.2 | Х | | | | | | | | |
| 5 | 67.1 | Х | - 255 | <u>i</u> | | | | | | |
| | on based o | | 30 | | | | | | | |
| measurem obtained by ar | | | | | | | | | | |
| | . s. ginou | | 25 | 1 | 25Hz 2 | 250Hz | 500Hz | 1 KHz | 21 | (Hz |
| | | | | | 1/3rd 0 | ctave Ba | and Freque | ncy (Hz |) | |
| *0 | utside sco | pe of accred | itation | | Above g | raph sh | ows freque | ncy rang | je accord | |
| | Dn <i>T</i> ,w (C; Ctr) [dB]: 65 (-3, -9) dB Dn <i>T</i> ,w+ Ctr [dB]: 56 dB Minimum Pass Level [dB]: 45 dB | | | | | curve of reference values within BS EN ISO 717- PASS Adverse Aggregated Deviations | | | | |

Partition Detail: FC0001** : Generic Concrete

Test Exceptions (if any):

Registered Sound Insulation Test Certificate

| Test No: | 130 | | Test J | ob Ref: | 30670 | | Test Org Name: | Eecobuild Ltd |
|----------------|----------------|---------------------------|-----------------------|----------|----------------------|--------|--------------------------------------|----------------------------|
| Customer: | | 01 Ltd | | | | | Test Type: | Airborne (Floor) |
| Address: | | orne Gate, ligh Street | Job Ac | ldress: | 141-147 ⊦ Street, | ligh | Test Date: Tester: | 30/09/2023 Shams Ahmadi |
| | Pinn | ligh Street, er | | | Brentwood Essex | , k | Site type: | New Build |
| Postcode: | HA5 | 5QA | Postco | de: | CM14 4SA | | Site Build: | Dwelling- House/Flat |
| | | Source | Room: | | Partiti | on: | Receiv | ver Room: |
| Description: | FI | at 17 Kitchen | / Dinir | ng Room | FC000 | 1** | Flat 13 Kitche | en / Dining Room |
| Volume / Area | | 55.0 | | | 24.0r | n² | 55 | 5.0m ³ |
| Frequency | D_{nT} | Correction | 85 | | | | | |
| (Hz) 50 | 22.7 | Х | - 80 | i. | | | | |
| 63 | 28.4 | Х | 00 | | | | | |
| 80 | 40.4 | Х | - | | | | | |
| 100 | 43.5 | Х | - 75 | | | | | |
| 125 | 48 | Х | - | | | | [| |
| 160 | 48.6 | | 70 | | | | | |
| 200 | 57 | Х | - | | | 1 | 7 | |
| 250 | 60.2 | Х | 65 | | | 1 | | |
| 315 | 61.2 | | (dB | 1 | | 1 | | |
| 400 | 65.7 | | 00 GO | | 11 | | | |
| 500 | 70.2 | | Level Difference (dB) | | 11 | | | |
| 630 | 72.9 | Х | - <u>J</u> 55 | | | | | |
| 800 | 73.5 | Х | vel | | | | | |
| 1 | 75.4 | Х | | | | | | |
| 1.25 | 73.9 | Х | ised | | | | | |
| 1.6 | 74 | | pre 45 | - i/ | | - | | |
| 2 | 75.5 | | Standardised | <u></u> | | | | |
| 2.5 | 73.3 | | រី 40 | | | | | |
| 3.15 | 71.6 | | | | | | | |
| 4 | 70.9 | | - 35 | | | | | |
| 5 | 68.2 | | 240 | | | | | |
| Evaluatio | n based | on field | - 30 | | | | | |
| measurem | | 0 | | 1 | | | | |
| obtained by ar | n enginee | ering method | 25 | 10 | 547 25 | | 500Hz 1.1/1 | 7 2 1/1/7 |
| | | | | 12 | 5Hz 25 | OHz | 500Hz 1 KH | z 2 KHz |
| | | | | | 1/3rd Oct | ave Ba | and Frequency (Hz | :) |
| *0 | utside sc | ope of accred | itation | | | | ows frequency rangence values within | |
| | Dn <i>t</i> ,w | (C; Ctr) [dB]: | 69 (-3 | , -9) dB | | | ASS | |
| | Dn | τ,w+ Ctr [dB]: | 60 dB | | Adverse | | gated Deviations | |
| Minin | num Pas | s Level [dB]: | 45 dB | | | | : 30.2 | |

Partition Detail: FC0001** : Generic Concrete

Test Exceptions (if any):

Registered Sound Insulation Test Certificate

| Test No: | 1301 | | Test J | ob Ref: | 30670 | | Test Org | | Eecobuil | |
|---|------------|---|--|-----------|-------------------|--------------------|------------------------------|-----------|---------------------|-------|
| Customer: | YSJ0 | rne Gate, | | draca. | 1 1 1 1 1 | 7 1 1 1 0 0 | Test Typ | | Airborne 30/09/2 | |
| Address: | | igh Street, | JOD AC | dress: | 141-14 Street, | 7 High | Test Da Tester: | te: | | |
| | Pinne | 0 | | | Brentw Essex | ood, | Site typ | e: | New Bui | |
| Postcode: | HA5 | 5QA | Postco | ode: | CM14 4 | SA | Site Bui | ld: | Dwelling House/F | |
| | | Source | Room: | | Par | tition: | | Receiv | er Room: | |
| Description: | F | lat 8 Kitchen | / Dinin | g Room | FCO | 001** | Flat | 3 Kitcher | n / Dining | Room |
| Volume / Area | | 55.0 |)m³ | | 28 | .0m² | | 55 | .0m³ | |
| Frequency | D_{nT} | Correction | 85 | | | | 1 | Î | | |
| (Hz) 50 | 19.6 | Х | - 80 | 1 | | | | | | |
| 63 | 29.1 | Х | - 80 | | | | | | | |
| 80 | 40.7 | Х | - | | | | | | | |
| 100 | 37.7 | | - 75 | | | | | | | |
| 125 | 47.4 | Х | 1346 | i (| | | | 1-1-1-1 | | i i |
| 160 | 50.5 | | - 70 | | | | for the state | | | |
| 200 | 54.7 | Х | | 1 | | | | | | - i |
| 250 | 59.6 | | - 65 - (gp) | | | | | | 2 | |
| 315 | 63.7 | | - <mark>9</mark> 60 | | | 1 | | | | |
| 400 | 69.1 | Х | enc | 1 | | | | | | 1 |
| 500 | 72.1 | Х | fer | | 1.1 | | | | | |
| 630 | 72.5 | Х | Difference (| | 11 | | | | | |
| 800 | 74.4 | Х | - For the state of | . i.e | | | | | | 1 |
| 1 | 74.1 | Х | - <u>9</u> 50 | | 1 | | | 1 | | |
| 1.25 | 72.5 | Х | Standardised L | | 1 | | | | | |
| 1.6 | 73.8 | Х | P16 45 | | \vdash | | | | | - |
| 2 | 75.4 | Х | pu | i/ | | | | | | |
| 2.5 | 73.9 | Х | - to 40 | | - | | | | | |
| 3.15 | 72.9 | Х | - | | | | | | | |
| 4 | 71.7 | Х | - 35 | 11 | | | | | | |
| 5 | 68.8 | Х | - | / 1 | | | | | | |
| Evaluatio measurem obtained by ar | nent using | g results | - 30 | | | | | | | |
| | | | 25 | 1 | 25Hz 1/3rd (| 250Hz Octave Ba | 500Hz and Freque | 1 KH2 | | łz |
| *0 | utside sco | ope of accred | itation | | Above | graph sh | ows freque | ency rang | ge accordir | |
| | | | (0 (5 | 10) -15 | curve | | | s within | BS EN ISO | 717-1 |
| N dire in | Dn7 | C; Ctr) [dB]: ,w+ Ctr [dB]: Level [dB]: | 69 (-5 57 dB 45 dB | , -12) dB | Adve | rse Aggre | ASS egated Dev]: 32.0 | viations | | |

Partition Detail: FC0001** : Generic Concrete

Test Exceptions (if any):

Registered Sound Insulation Test Certificate

| Test No: | 1301 | | Test J | ob Ref: | | 30670 | | | t Org Nam | | obuild Lt | |
|--|------------|---------------|-----------------------|----------|-----|----------------------|---------|------------------|--------------------|--------------------|---------------------|-----|
| Customer: Address: | YSJ0 | rne Gate, | Job Ar | dress: | | 1 1 1 1 1 7 1 | liab | | t Type: t Date: | | orne (Fl 09/2023 | |
| Address: | | gh Street, | JOD AC | iuress: | | 141-147 H Street, | lign | Tes | | | ms Ahm | |
| | Pinne | | | | | Brentwood Essex | d, | | e type: | | v Build | |
| Postcode: | HA5 ! | 5QA | Postco | de: | | CM14 4SA | A | Site | e Build: | | elling- ise/Flat | |
| | | Source | Room: | | | Partiti | on: | | | eiver Roo | er Room: | |
| Description: | Fla | at Room Com | | I Space | | FC0001** | | Flat 3 Kitcher | | | ning Roo | m |
| Volume / Area | | 820. | 0m ³ کە | | | 28.0r | m² | 2 | | 55.0m ³ | 22 | |
| Frequency | D_{nT} | Correction | 05 | i | | | | | | | | i |
| (Hz) 50 | 24 | Х | | | 1 | | | | | | | |
| 63 | 37.3 | Х | - 80 | 1 | | | - | | | -8 | 945- 945- | 1 |
| | | | - | 4 | | | | | | | | |
| 80 | 42.7 | Х | - 75 | i | | | | | | | 4 | -j |
| 100 | 44.2 | | _ | | | | | | | _ | 1 | 4 |
| 125 | 45.2 | | - 70 | | 1 | | | | | | | F |
| 160 | 42.6 | | - 70 | į | | | | | / | | | Į. |
| 200 | 46.1 | | - 65 | | | | | | <u> </u> | | | •• |
| 250 | 52.6 | | - | | | | | A | | | | į. |
| 315 | 56.1 | | 9 60 | | : | | 1 | - | | | | |
| 400 | 58.9 | | enc | 1 | | | 1 | | | | | |
| 500 | 65 | | Difference (dB) | | | | 11 | | | | | |
| 630 | 67.7 | Х | | | | 1 | | | | | | |
| 800 | 69.3 | Х | Fevel 20 | | | | | | | | | |
| 1 | 69.4 | Х | Standardised I | | | / / | | | | | | |
| 1.25 | 69.9 | Х | | 1 | | | - | | | | 72 | 1 |
| 1.6 | 71.3 | Х | Ida | | | \sim | | | | | | |
| 2 | 73.5 | Х | | / i | | 242 | | | | | | i |
| 2.5 | 73.9 | Х | - | / ¦ | | | | | | | 10 | 1 |
| 3.15 | 72.6 | Х | - 25 | | | | | | | | | |
| 4 | 71.1 | Х | - 35 | | | | | | | | | |
| 5 | 69.4 | Х | | | | | | | | | | i |
| Evaluatio | n based o | on field | 30 | | | | | | | | | |
| measurem | | | | 1 | | | | | | | | i |
| obtained by ar | n enginee | ring method | 25 | | | | | | | | | 1 |
| | | | 25 | | 125 | Hz 25 | OHz | 500 | Hz 1 | KHz | 2 KHz | |
| | | | | | | 1/3rd Oct | tave Ba | and Fr | equency (| Hz) | | |
| *0 | utside sco | ope of accred | itation | | | Above gra | aph sh | ows fr | equency r | ange acc | | |
| | (| | (2)(2) | | | curve o | | | alues with | in BS EN | 150 71 | /-1 |
| | | C; Ctr) [dB]: | | , -7) dB | | A .! | | ASS | | | | |
| Dnt,w+ Ctr [dB]: 56 dB Minimum Pass Level [dB]: 45 dB | | | | | | Adverse | | egatec]: 25. | l Deviation | S | | |

Partition Detail: FC0001** : Generic Concrete

Test Exceptions (if any):

Registered Sound Insulation Test Certificate

| Test No: | 13016 | | Test J | ob Ref: | 30670 | | | t Org Nam | | uild Lto | |
|-------------------|---------------------|------------------------|--------------------|----------|--------------------|----------|----------|--------------|-----------------|------------------------|-----|
| Customer: | YSJ01 | | م اما | | 1 4 4 4 4 7 | Link | | st Type: | | ne (Flo | or) |
| Address: | | ne Gate, jh Street, | Job Ac | dress: | 141-147 Street, | High | | st Date: | | <u>/2023</u> s Ahma | di |
| | Pinner | | | | Brentwo Essex | od, | | e type: | New E | | |
| Postcode: | HA5 5 | QA | Postco | ode: | CM14 45 | SA | Site | e Build: | Dwelli House | | |
| | | Source | Room: | | Parti | tion: | | Rece | eiver Room | | |
| Description: | Fla | t Room Con | nmercia | al Space | FC00 | 01** | | Flat 4 Kitch | nen / Dinin | g Roon | n |
| Volume / Area | | 820. | 0m³ | | 20.0 | 0m² | | | 55.0m³ | | |
| Frequency (Hz) | D n⊤ 21.5 | Correction | 85 | | | | | <u>`</u> | | | 1 |
| 50 | | | - 80 | i | | | | | | | i |
| 63 | 36.1 | | | | | | | | | | 1 |
| 80 | 39.5 | | 75 | | | | | | | | |
| 100 | 44.3 | | | | | | | | | | |
| 125 | 43.2 | | - 70 | | | | | | | 5 | |
| 160 | 42.1 | | - 25656 | | | | | - | \checkmark | | 7 |
| 200 | 45.4 | | - 65 | | | | | / | | | |
| 250 | 51.6 | | (dB) | | | | 1 | | | | |
| 315 | 54.9 | | - <u>e</u> 60 | i | | | -1 | | | | i |
| 400 | 57.3 | | rend | | | 1 | | | | | i. |
| 500 | 63.9 | | Difference (| | | 11 | <u>.</u> | - | | 1 | - |
| 630 | 66 | | | | 1. | | | | | | į. |
| 800 | 68.1 | Х | - Level 2 | | | \wedge | | | | 1 | ÷ |
| 1 | 68 | Х | sed | 1 | 1 | 6. | | | | | i. |
| 1.25 | 66.8 | | ipue | | | | | | | | ÷ |
| 1.6 | 69.4 | | Standardised L | | | | | | | | |
| 2 | 70.2 | | ี่ 5 40 | | | | | | | 45 | t |
| 2.5 | 71.2 | | - | | | | | | | | į. |
| 3.15 | 68.9 | | 35 | | | | | | 1- | - | |
| 4 | 67.1 | | | | | | | | | | |
| 5 | 65.9 | | - 30 | | | | | | | | 1 |
| Evaluatio | n based or | n field | - | | | | | | | | |
| | nent using | | 25 | | .25Hz 2 | 250Hz | 500 |)Hz 1 | KHz 2 | KHz | - |
| obtained by ar | n engineer | ing method | | 5 | 20112 2 | -50112 | 500 | ///L 11 | N12 2 | | |
| | | | | | 1/3rd O | ctave B | and F | requency (I | Hz) | | |
| *0 | utside scor | be of accred | itation | | Above g | raph sh | ows f | requency ra | ange accor | | |
| | DnT,w (C | ; Ctr) [dB]: | 62 (-2 | , -7) dB | | | ASS | | | | 1 |
| | | v+ Ctr [dB]: | 55 dB | | Adver | | | d Deviations | 5 | | |
| Minin | | Level [dB]: | 45 dB | | | |]: 26. | | - | | |

Test Exceptions (if any):

Registered Sound Insulation Test Certificate

| Test No: | 1301 | | Test J | ob Ref: | | 30670 | | | t Org Name | | uild Ltd | |
|----------------|---|-------------------|------------------|---------------|-----|----------------------|-----------|----------------|------------------|-------------------|-----------|----|
| Customer: | | 1 Ltd | | | | | | | t Type: | | ne (Floo | r) |
| Address: | | orne Gate, | Job Ad | dress: | | 141-147 H | ligh | | t Date: | 30/09 | | 1: |
| | 64 H Pinne | igh Street, ar | | | | Street, Brentwood | 4 | - | ster: e type: | New B | s Ahmad | 11 |
| | r ii ii k | 51 | | | | Essex | , | | | | | |
| Postcode: | HA5 | | Postco | | | CM14 4SA | | Site | e Build: | Dwelli House | /Flat | |
| | | Source | | | | Partiti | | Receiver Room: | | | | |
| Description: | | lat 9 Kitchen | | g Room | | FC0001** | | | Flat 4 Kitche | | g Room | |
| Volume / Area | | 55.0 | <u>)m³</u> 85 | 24 2 2 | | 20.0r | <u>n²</u> | | 5 | 5.0m ³ | | - |
| Frequency | D_{nT} | Correction | 60 | | | | | | | | | ſ |
| (Hz) 50 | 21.4 | Х | | | | | | | | | | į. |
| | | | - 80 | | | | - | | | | | - |
| 63 | 28 | X | - | 1 | | | | | | | | |
| 80 | 37.6 | X | 75 | | | | | | | | | Ĺ |
| 100 | 37.6 | X | - | | | | | | | | | |
| 125 | 46 | Х | 70 | | | | | | | | | |
| 160 | 40.8 | | | i | | | | | | <u> </u> | <u> </u> | |
| 200 | 51.2 | | | | | | | | 1 | | | |
| 250 | 56.1 | | - 65 | | | | | | | | | |
| 315 | 58.8 | | g | | | | 1 | 1 | | | | |
| 400 | 59.8 | | - OOU | | | | 1 | / | | | | Γ |
| 500 | 65.7 | | Difference (dB) | ļ | | | 1 | | | | | İ. |
| 630 | 67.4 | Х | | | | 11 | | | | | | |
| 800 | 72.2 | Х | Fevel 50 | | | 11 | | | | | | ĺ. |
| 1 | 72.5 | Х | - 9 50 | 1 | | / / | | | | | | |
| 1.25 | 69 | Х | dise | i (| 1 | | | | | | | i. |
| 1.6 | 68.3 | Х | Jap 45 | | 7 | | | | | | | |
| 2 | 69.1 | Х | Standardised L | | | V | | | | | | |
| 2.5 | 66.4 | | ún 40 | ý | | | 6 | | | | | |
| 3.15 | 65.3 | | 2.1 | | | | | | | | | |
| 4 | 63.4 | | 35 | 11 | - | | | | | | | |
| 5 | 61.9 | | | / ! | | | | | | | | |
| Evaluatio | n based | on field | - 30 | | | | | | | | | |
| measurem | | | | 1 | | | | | | | i | ĺ. |
| obtained by ar | n enginee | ering method | 25 | | 1.5 | | | | | | | |
| | | | | | 125 | Hz 25 | 0Hz | 500 | Hz 1 KI | Hz 2 | KHz | |
| | | | | | | 1/3rd Oct | ave Ba | and F | requency (H | 7) | | |
| *0 | utsida so | ope of accred | itation | | | | | | requency rar | 1854 | lina to t | h |
| | | | | | | | | | values within | | | |
| | Dn <i>t</i> ,w (C; Ctr) [dB]: 64 (-4, -10) dB | | | | | | | ٩SS | | | | |
| | Dn | r,w+ Ctr [dB]: | 54 dB | | | Adverse | | | d Deviations | | | |
| Minin | num Pass | Level [dB]: | 45 dB | | | | | : 32. | | | | _ |

Partition Detail: FC0001** : Generic Concrete

Test Exceptions (if any):



| Test No: Customer: | <u>13016</u> YSJ01 | | Test J | ob Ref: | | 30670 | | | Org Nam Type: | | build Lt | |
|--------------------------|---|--------------|------------------------------------|---------|---------|--------------------|---------|-----------|-------------------------------|--------------------|---------------------|----|
| Address: | | ne Gate, | Joh A | ddress: | | 141-147 | Hiah | | Date: | | act (Floo 9/2023 | |
| | | gh Street, | 300 A | | | Street, | | Test | | | ns Ahm | |
| | Pinner | | | | | Brentwood Essex | d, | | type: | | Build | |
| Postcode: | HA5 5 | QA | Postco | ode: | | CM14 4SA | ł | Site | Build: | Dwel Hous | lling- se/Flat | |
| | | Source | | | | Partiti | | | | eiver Rooi | | |
| Description: | | t 17 Kitchen | | ng Room | 1 | FC0001** | | | Flat 13 Kitchen / Dining Room | | | |
| Volume / Ar Frequency | <u>rea</u> L'nτ 1/3 | Correction | <u>0m³</u> გე | - T | 1 | 24.0r | 1 | Ť | | 55.0m ³ | ř | 1 |
| (Hz) 50 | Octave (dB) 52 | Correction | | | | | | | | | | |
| 63 | 49.8 | | - 80 | İ | | | | 1 | | 1 | 1 | İ |
| 80 | 47.6 | | - | 1 | | | | | | | | į. |
| 100 | 49.1 | | _ 75 | 1 | | | | | | | | |
| 125 | 51.8 | | - 70 | | | | | | | | | |
| 160 | 54.6 | | - B | i | | | | | | | | i |
| 200 | 49.2 | | - L - 65 | i | | | | | | | | i |
| 250 | 44.4 | | | | | | | | | | | |
| 315 | 40.5 | | Level, | 1 | | | | | | | | - |
| 400 | 35.8 | | sure | | | | | | | | | 1 |
| 500 | 32.7 | | Se 55 | | | ^ | - | | | | | |
| 630 | 25.3 | Х | - d p | - | | | | | | | | |
| 800 | 23.8 | Х | _ 100 50 | | | | | | | | - | |
| 1 | 22 | Х | - t | | | | | | | | | |
| 1.25 | 21.7 | Х | - du 45 | - i | | | | | | | | ÷ |
| 1.6 | 21.5 | Х | - p | | | | | | | | | |
| 2 | 20.4 | Х | - 40 | | | | | | | | 17 | |
| 2.5 | 22.6 | | Standardised Impact Sound Pressure | | | | | | | | | |
| 3.15 | 23.1 | | - ¹ 235 | | | | | | | | | |
| 4 | 23.7 | | - | | | | | | | | | |
| 5 | 24.2 | - Call | 30 | | | | 6 | | 1 | | 1 | 1 |
| | ation based o rement using | | | | | | | | | | | 1 |
| | / an engineer | | 25 | | 125 | Hz 25 | i0Hz | 500H | z 1 | KHz | 2 KHz | |
| 2 | - | | | | | | | | | | | |
| | | | | | | 1/3rd Oct | tave Ba | and Fre | equency (| Hz) | | |
| | *Outside sco | pe of accred | litation | | | | | | equency ra alues with | | | |
| | 1'- | | 12 (1) | N dB | | | | ASS | | | | |
| Ma | L'n≢,w (CI) [dB]: 42 (1) dB laximum Pass Level [dB]: 62 dB | | | | Adverse | e Aggre | | Deviation | S | | | |

Test Exceptions (if any):



| Customer: Address: | YSJ01 | 1 101 | Test Job Ref | | | | Test Org Name: Test Type: | | e: Eecobuild Ltd Impact (Floor) | | |
|-------------------------|--|-----------------|------------------------------------|----------|------------------|----------|------------------------------|-----------------------------|------------------------------------|----------------------|--|
| nuui 633. | Elthor | ne Gate, | | dress: | 141-147 | High | | t Type: t Date: | 30/09/ | | |
| | | h Street, | JOD AC | 101622: | Street, | nign | | ter: | | Ahmadi | |
| | Pinner | | | | Brentwo Essex | od, | | e type: | New B | | |
| Postcode: | HA5 50 | AC | Postco | ode: | CM14 45 | SA | Site | e Build: | Dwellir House/ | | |
| | | Source | Room: | | Parti | tion: | Receiver Room: | | | | |
| Description: | | t 9 Kitchen | | g Room | | | | Flat 4 Kitche | | g Room | |
| Volume / Are | | 55.0 | | | 20.0 | 0m² | | 5 | 5.0m ³ | 13 92 | |
| Frequency (Hz) 50 | L'n7 1/3 Octave (dB) 50.8 | Correction X | 85 | | | | | | | | |
| 63 | 47.8 | Х | - 80 | | | | | | | 1 | |
| 80 | 49.7 | Χ | - | | | | | | | | |
| 100 | 49 | | 75 | | | | _ | | | 1 | |
| 125 | 54.4 | | - | | | | | | | | |
| 120 | 57.3 | | - (gp) ⁷⁰ | | | | | | | | |
| 200 | 55.8 | | Ē | | | | | | | | |
| 250 | 49.7 | | | | | | | | | 1 | |
| 315 | 42.2 | | Level, | | | | | | | | |
| 400 | 38.3 | | | | | | | | | | |
| 500 | 32.3 | | - Inss | | | | | | | 1 | |
| 630 | 26.2 | X | - Pre | | | | | | | | |
| 800 | 22.7 | X | - pun 50 | 1/ | | | | | | | |
| 1 | 21.6 | Х | So | \sim | | | | | | | |
| 1.25 | 21.6 | Х | ped 45 | | | 1. | - | | | 1 | |
| 1.6 | 21 | Х | II | | | | | | | 1 | |
| 2 | 19.5 | Х | 40 | <u>i</u> | | | - | | <u> </u> | i | |
| 2.5 | 21 | | Standardised Impact Sound Pressure | | | | | | 1 | | |
| 3.15 | 21.4 | Х | - pue 35 | | | | | | | | |
| 4 | 21.2 | Х | St | | | | | | | | |
| 5 | 21.4 | Х | - 30 | | | | 1 | | | N | |
| | tion based or | | 750 7 0 | | | | | No. | | 1 | |
| | ement using an engineeri | | | | | | | 1 | | | |
| Solumed by | an engineen | ng methou | 25 | | 125Hz 2 | 250Hz | 500 | Hz 1 KH | Hz 2 | KHz | |
| | | | | | 1/2-1 0 | ctave P | and E | | -) | | |
| | * Outoida an | o of grant - | Itatiar | | | | | equency (H | 1.0054 | ling to th | |
| | *Outside scop | e or accred | itation | | g evoda svruc | of refer | ows fr ence v | equency rar alues within | BS EN IS | ong to th 0 717-2 | |
| | 'n τ w | (CI) [dB]· | 45 (1) | dB | | P | ASS | | | | |
| Max | L'n _{T,w} (CI) [dB]: 45 (1) dB aximum Pass Level [dB]: 62 dB | | | | Advers | | egatec]: 31. | l Deviations 2 | | | |

Test Exceptions (if any):



| Test No: Customer: | <u>13016</u> YSJ01 | | Test J | OD RET: | 30670 | | | Org Name: | | uild Ltd | |
|-------------------------|--|-----------------|-----------------------|------------|---|-----------------|--------|-----------------------------|-------------------|--------------------|--|
| Address: | | Ltd ne Gate, | loh Ar | dress: | 141-147 | 7 High | | : Type: : Date: | 30/09/ | t (Floor) /2023 | |
| nuu 033. | | h Street, | 300 A(| 101 033. | Street, | riigii | Test | | | Ahmad | |
| | Pinner | | | | Brentwo Essex | | - | type: | New B | uild | |
| Postcode: | HA5 5 | AC | Postco | ode: | CM14 4 | SA | Site | Build: | Dwellir House | | |
| | | Source | | | Partition: | | | | er Room: | | |
| Description | | 16 Kitchen | | ng Room | | | | lat 12 Kitch | | g Room | |
| Volume / A | L'n7 1/3 | Correction | <u>3 סא</u> מא | | 28. | 0m ² | Ť | 5 | 5.0m ³ | 1 | |
| Frequency (Hz) 50 | Octave (dB) 47 | Correction | | | | | | | | | |
| 63 | 42.3 | | - 80 | 1 | | | 1 | | | | |
| 80 | 45.3 | | - | | | | | | | | |
| 100 | 49.2 | | _ 75 | | | | | | | | |
| 125 | 47.6 | | _ | | | | | | | | |
| 160 | 50.4 | | - (gp) ⁷⁰ | 1 | | | | | | | |
| 200 | 49.1 | | - Lu - 65 | | | | | | | | |
| 250 | 46.1 | | | | | | | | | | |
| 315 | 44.2 | | Level, | | | | | | | | |
| 400 | 37.5 | | Impact Sound Pressure | | | | | | | | |
| 500 | 31.1 | | - IS 55 | | | | | | | | |
| 630 | 23.6 | Х | - d P | | | | | | | | |
| 800 | 23.6 | Х | uno 50 | | | | | | | - | |
| 1 | 23.9 | Х | Lt S | /i` | \checkmark \checkmark | | | | | | |
| 1.25 | 22.1 | Х | _ 45 | | | | | | | | |
| 1.6 | 20.9 | Х | 비 | / <u> </u> | | ••••• | - | | | | |
| 2 | 21.6 | Х | 04 N | | | _ | | | | | |
| 2.5 | 24.9 | Х | Standardised | | | | | | | | |
| 3.15 | 25 | Х | - pu 35 | | | | | | 1 | | |
| 4 | 25.1 | Х | St | | | | | | | | |
| 5 | 24.2 | X | - 30 | | | | | | | | |
| | ation based or rement using | | | | | | | | | A | |
| | y an engineeri | | | | | | | | | 1 | |
| estanica by | , an engineen | | 25 | 1 | 25Hz | 250Hz | 500 | Hz 1 KH | lz 2 | KHz | |
| | | | | | | | | | | | |
| | | | | | 1/3rd C | ctave B | and Fr | equency (H | z) | | |
| | *Outside scop | e of accred | itation | | | | | equency rar alues within | | | |
| - | 1'- | | <i>A</i> 1 (0) | dB | | | ASS | | | | |
| Ma | L'n7,w (CI) [dB]: 41 (0) dB aximum Pass Level [dB]: 62 dB | | | | Adverse Aggregated Deviations [dB]: 30.6 | | | | | | |

Test Exceptions (if any):



| Test No: | 130166 | | Test J | ob Ref: | 30670 | | | org Name: | | uild Ltd |
|-------------------------|--|-----------------|---------------------------|-----------|---------------------|---------------|-------------------|-------------------------|-------------------------|-------------------|
| Customer: | YSJ01 | | | | | | Test T | | | t (Floor) |
| Address: | | ne Gate, | Job Ac | ldress: | 141-147 | High | Test D | | 30/09/ | |
| | 64 Higi Pinner | h Street, | | | Street, Brentwoo | od, | Tester Site ty | | New B | <u>Ahmad</u> uild |
| Postcode: | HA5 50 | 2A | Postco | de: | Essex CM14 4S | A | Site B | uild: | Dwellin | |
| | | Source | Room: | | Partit | ion: | | Receiv | House/Flat ver Room: | |
| Description: | Flat | t 8 Kitchen | | a Room | FC000 | | Fla | it 3 Kitche | | |
| Volume / Ar | | | 0m ³ | 9 1100111 | 28.0 | | | | 5.0m ³ | 9 |
| Frequency (Hz) 50 | L'n <i>t</i> 1/3 Octave (dB) 49.3 | Correction X | 85 | | | | | | | |
| 63 | 49.4 | Х | - 80 | 1 | 63 | | | | | |
| 80 | 49.2 | | - 75 | | | | | | | |
| 100 | 51.4 | | - 75 | 1 | | | | | | |
| 125 | 47.9 | | - | 5 | | - | | | | |
| 160 | 50.3 | | - 'nT (dB) - 'n' - '0' | | | | | | | |
| 200 | 45.1 | | 65 | | | | | | | |
| 250 | 36.3 | Х | <u> </u> | | | | | | | |
| 315 | 34.7 | | Level, | | | | | | | |
| 400 | 28.2 | | Pressure | | | | | | | |
| 500 | 22.8 | Х | ISSS 55 | i | | | | | | |
| 630 | 21.3 | Х | Pre | | | | | | | |
| 800 | 20.6 | Х | Impact Sound | | - | | | | | |
| 1 | 21.4 | Х | So | - I V | \mathbf{v} | | | | | |
| 1.25 | 21 | Х | - 45 | 1 | | | | | | |
| 1.6 | 20.8 | Х | _ Tmp | L., | 1 | | | | | |
| 2 | 22.1 | Х | eq | | | | | | | |
| 2.5 | 26 | Х | - sip | | | | | 100 | | |
| 3.15 | 26.5 | Х | Standardised | į. | | | | | | |
| 4 | 26.9 | Х | 25an | | | 1 | | | 1 | |
| 5 | 25.6 | Х | | 1 | | | | | N | |
| measur | tion based on ement using r an engineerii | results | 30 | | | | | | | · A we want |
| 5 | 5 | _ | 25 | 1. | | 50Hz | 500Hz and Freq | 1 KH uency (Hz | | KHz |
| د | *Outside scop | e of accred | litation | | | | | uency ran Jes within | | |
| Ma | L'n7,w (CI) [dB]: 41 (-1) dB Maximum Pass Level [dB]: 62 dB | | |) dB | | P. e Aggre | ASS | eviations | | |

Test Exceptions (if any):



Appendix B – UKAS Calibration Certificates



Certificate of Calibration

| Certificate number: | U40756 |
|---------------------|--|
| Test Object: | Sound Level Meter, BS EN IEC 61672-1:2013 Class 1 Associated Frequency Analyser to BS EN IEC 61260:1996 Class 1 |
| Producer: | Svantek |
| Туре: | 977A |
| Serial number: | 92116 |
| Customer: | Eecobuild Ltd |
| Address: | C/O Project H Ltd Beadle House, Bull Plain, |
| | Hertford, Hertfordshire. SG14 1DT. |
| Contact Person: | Shams Ahmadi |
| Order No: | |

Introduction:

Calibration has been performed as set out in CA Technical Procedures which are based on the procedures for periodic verification of sound level meters as per the Test Object listed above. Results and conformance statement are overleaf and detailed results, where appropriate, are provided in the attached Measurement Report.

| Tested: Microphone | Producer ACO | <i>Туре</i> 7052Е | Serial No 77165 | <i>Certificate No</i> 40755 |
|------------------------------|-----------------|----------------------|--------------------|--------------------------------|
| Calibrator* | Svantek | SV33B | 93175 | U40754 |
| Preamplifier | Svantek | SV12L | 95133 | Included |

* The calibrator was complete with any required coupler for the microphone specified.

Additional items that have also been submitted for verification:

| Wind shield | Svantek | SA22 | |
|--|---------|------|--|
| Attenuator | N/A | | |
| Extension cable | N/A | | |
| These items have been taken into account wherever appropriate. | | | |

Instruction Manual: svan 977a man en v03.03 2018-09-18 Firmware Version: v2.02.03 The test object is a single channel instrument.

| Conditions | Pressure kPa | Temperature °C | Humidity %RH |
|------------------------|--------------|----------------|--------------|
| Reference conditions | 101.325 | 23 | 50 |
| Measurement conditions | 101.04 ±0.07 | 21.80 ±0.25 | 41.08 ±3.5 |

Calibration Dates:

| Received date: | 31/03/2022 | Reviewed date: | 20/04/2022 |
|-------------------|------------|----------------|------------|
| Calibration date: | 20/04/2022 | Issued date: | 20/04/2022 |

Technicians: (Electronic certificate)

| Calibrated by: | | |
|----------------|--|--|
| Reviewed by: | | |

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Laboratory Location

Certificate number:

Campbell Associates Ltd

5b Chelmsford Road Industrial Estate GREAT DUNMOW, Essex, GB-CM6 1HD Phone 01371 871030



Certificate of Calibration

| Test Object: | Floor Tapping Machine |
|-----------------|--------------------------------|
| Producer: | Sources Line |
| Туре: | EOS |
| Serial number: | NGE05118 |
| Customer: | EecoBuild LTD |
| Address: | C/O Project H Ltd Beadle House |
| | Bull Plain Hertford SG14 1D |
| Contact Person: | Shams Ahmadi |
| Order No: | ТВА |

U40752

Method :

This certificate is issued against the requirements of Annex A of both BS EN ISO 16283-2:2015 and BS EN ISO 140-6/7:1998 in respect of regular verification and also meet the requirements of UKAS publication LAB23 covering the verification of floor tapping machines used for building acoustics applications.

The machine was inspected for mechanical soundness and tested for electrical safety. It was cleaned and lubricated in accordance with the manufacturers instructions where necessary. The cams and hammer guides were inspected to ensure a free fall of the hammers. The mass of each of the hammers was determined either by measurement or reference to historical data (see Statements overleaf) along with their curvature and diameter of the impact face. The machine was set up as per the manufacturers specification using the calibration gauge provided (where applicable) and checked for level, then the direction of fall of the hammer set was checked against the requirements of the standard. The time between successive hammer impacts was measured over a 30 second period and the mean and range of successive values calculated.

Statements:

A successful calibration indicates that this Tapping Machine meets the requirements of BS EN ISO 16283-2:2015 and BS EN ISO 140 parts 6, 7 & 8 annex A and is therefore suitable for the measurement of impact sound transmission following the procedures set out in their associated standards.

Expanded measurement uncertainties are:- Impact rate 0.25 ms, Hammer mass (mounted) 0.79 g, Hammer mass (demounted) 0.19 g, Hammer diameter 0.03 mm, Radius of curvature 11.0 mm, Hammer impact velocity 0.01 m/s and Hammer angle of fall 0.07 degree.

The mass of each individual hammer was measured in situ and the resulting data has been used in the calculation of the momentum of impact.

| Environmental Conditions | | Temperature | Relative Humidity |
|--|--------------------------|--------------------------------|--------------------------|
| Reference Conditions: | | 23 °C | 50 %RH |
| Measurement Conditions: | | 23.0 °C | 44.3 %RH |
| Calibration Dates: Received date: Calibration date: | 31/03/2022 19/04/2022 | Reviewed date: Issued date: | 20/04/2022 20/04/2022 |

Technicians: (Electronic certificate)

Calibrated by: Reviewed by:



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