



128 MILTON ROAD,
GRAVESEND

Sound Insulation Test Report

Reference: 11366.RP01.PCT.0

Prepared: 14 March 2022

Revision Number: 0

Paul Jordan

Maison Build

105 Brent Lane

Dartford

DA1 1QT

Sound Insulation Test Report



128 MILTON ROAD, GRAVESEND

Reference: 11366.RP01.PCT.0

Prepared: 14 March 2022

Revision	Comment	Date	Prepared By	Approved By
0	First issue of report	14 March 2022	Matt Wildman	Andrew Heath

Terms of contract:

RBA Acoustics Ltd have prepared this report in accordance with our scope of work, agreed on 24 September 2021. RBA Acoustics Ltd shall not be responsible for any use of the report or its contents for any purpose other than that for which it was provided. Should the Client require the distribution of the report to other parties for information, the full report should be copied. No professional liability or warranty shall be extended to other parties by RBA Acoustics Ltd without written agreement from RBA Acoustics Ltd.

The recommendations within this report relate to acoustics performance only and will need to be integrated within the overall design by the lead designer to incorporate all other design disciplines such as fire, structural integrity, setting-out, etc. Similarly, any sketches appended to this report illustrate acoustic principles only and will need to be developed into full working drawings by the lead designer to incorporate all other design disciplines.



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Notice to Building Control Officer

Certification of Test Results

ANC operates an online, secure, paperless certification system for sound insulation tests.

The online verification (certification) system means that Building Control Bodies will need to follow the steps below to verify the results quoted in the relevant test report:

1. Go to the ANC secure server at www.theanc.co.uk
2. Navigate to the ADvANCE page which links to the ANC site available for use by BCOs.
3. Enter the following in the spaces provided:

Task Number: 74242 Task Password: 4TOU7X

4. Select role "Building Control Officer" and press "Login"
5. You will then see a summary list of results of all the Tests undertaken to date for this project (Task) as held on the secure primary server and you can print this table for your records.

1. GENERAL DETAILS

Testing undertaken for:	Paul Jordan Maison Build 105 Brent Lane Dartford DA1 1QT
Site Address:	128 Milton Road Gravesend DA12 2PG
Principal Tester:	Andrew Heath
Additional Testers:	Robert Harris-Marshall
Test Dates:	Wednesday 6 January & Monday 7 March 2022
Building type:	Dwelling-houses and flats formed by material change of use
Areas Tested:	Separating walls between flats (see Section 4)
<i>Constructions Tested:</i>	
Separating Floors:	1No. layer of dB Cement Panel acoustic floor 28 Plywood floor deck 300mm timber Posi-Joists with dense plasterboard 2No. layers of 12.5mm Fireline Gyproc boards Service void with acoustic insulation 1No. layer of 15mm dense plasterboard
Separating Walls:	1No. layer of 15mm acoustic board to both sides 1No. layer of 20mm shaftwall board to both sides 1No. layer of 12mm plywood board to both sides Timber studs w/ 50mm separation gap
Accreditation:	RBA Acoustics Limited are registered with the Association of Noise Consultants (ANC) Registration Scheme. This is an ANC Registered Report with the unique registration number 113/74242. The results detailed within this report should be verified online.

2. ACOUSTIC TESTS

2.1 General

Acoustic testing of separating floor and wall structures at 128 Milton Road, Gravesend was undertaken on Wednesday 6 January & Monday 7 March 2022. Four separating floors were tested for both airborne and impact sound insulation, and four separating walls were tested for airborne sound insulation.

The site measurements and analyses were undertaken in full accordance with the following British Standards as required by Approved Document E of the Building Regulations:

Airborne Sound: BS EN ISO 140-4:1998 "Acoustics – Measurement of sound insulation in buildings and of building elements – Part 4: Field measurements of airborne sound insulation between rooms"

Impact Sound: BS EN ISO 140-7:1998 "Acoustics – Measurement of sound insulation in buildings and of building elements – Part 7: Field measurements of impact sound insulation of floors"

The results of the measurements have subsequently been analysed and presented in accordance with the following:

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

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

All the procedures in Annex B of Approved Document E of the Building Regulations have been followed and carried out in full accordance with ISO 140-4 and/or ISO 140-7. Commonly encountered deviations from the standards are described in the notifications detailed in Section 2.5.

2.2 Instrumentation

The following equipment was used for the measurements.

Table 1 – Equipment Details

Manufacturer	Model Type	Serial No.	Calibration	
			Certificate No.	Valid Until
01dB A&V Type 1 Sound Level Meter	Black Solo 01	65687	21/34505302 -V	2 February 2023
01dB A&V Pre Amplifier	PRE 21 S	20398		
01dB A&V ½" Microphone	MCE 212	67439		
01dB-Stell Calibrator	Cal 21	50441910	21/34505303	2 February 2023
01dB A&V Type 1 Sound Level Meter	Black Solo 01	65630	U35189	10 July 2022
01dB A&V Pre Amplifier	PRE 21 S	16254		
01dB A&V ½" Microphone	MCE 212	333463	35188	10 July 2022
01dB-Stell Calibrator	Cal 21	50241574	U35187	10 July 2022
JBL Loudspeaker	515XT	VTP1124-18980	N/A	N/A
NTI Minirator	MR2	G2L-RAAAX-F2	N/A	N/A
ANV	TM-02	TM02027	UCRT19/2313	30 November 2023
Norsonic Tapping Machine	211A	29697	U35394	5 August 2022

The equipment was calibrated prior to and on completion of the testing. No calibration drifts were observed.

2.3 Airborne Sound Insulation Test Method

The airborne sound insulation test method used was undertaken in general accordance with Airborne test procedure 2 as described in the Association of Noise Consultants (2018) *Practice Guidance for sound insulation testing in dwellings*.

The airborne sound insulation performance of the structures was determined by generating a broadband, random diffuse sound field in the source room and measuring the spatially averaged 1/3 octave band sound pressure levels in both the source and receive areas. The receive room levels were corrected for background noise in accordance with the procedure detailed in BS EN ISO 140-4 and then subtracted from the source levels to determine the level difference, D , over the frequency range 100-3150 Hz. These 1/3 octave band values were then standardised to a reference of 0.5 seconds using the measured reverberation time of the receive room.

For each test two separate source positions were used and spatially averaged noise levels within both the source and receive room were measured by means of a moving microphone over a sample period of 30 seconds for each source position. A single background noise level was measured in the receive room using the same procedure.

Reverberant decays were also recorded in the receive room using the interrupted noise method, with the sound source at a single position, to determine the reverberation times, T , over the same frequency range. Six decays in total were recorded at three different positions within the receive room and subsequently averaged.

The 1/3 octave band results were then compared with a standard curve, using the method described in BS EN ISO 717-1: 1997 to determine the single-figure descriptor of airborne sound insulation, the Weighted Standardised Level Difference, $D_{nT,w}$, and the spectrum adaptation term, C_{tr} .

Our methodology allows for one representative background noise measurement to be made in the receive room, with this used to correct both receive room measurements. In the event that background noise levels change noticeably between the first and second receive measurements, testing is repeated once the background levels have stabilised and can be considered representative.

2.4 Impact Sound Insulation Test Method

The impact sound insulation test method used was undertaken in general accordance with Impact test procedure 6 as described in the Association of Noise Consultants (2018) *Practice Guidance for sound insulation testing in dwellings*.

A tapping machine (meeting the requirements of BS EN ISO 140-7) was located within the source room. The machine generated a sound field in the room beneath (receive room) by means of dropping five 500g hammers in sequence onto the floor at 0.1 second intervals. The machine was positioned at 45 degrees to the direction of any floor beams or ribs.

The resultant spatially averaged sound pressure levels in the receive room were recorded in 1/3 octaves over the frequency range 100-3150Hz. The levels were corrected for background noise where applicable and the receive room reverberation time.

For each test four separate source positions were used and spatially averaged noise levels within the receive room were measured by means of a moving microphone over a sample period of 30 seconds for each source position. A single background noise level was measured in the receive room using the same procedure.

Reverberant decays were also recorded in the receive room using the interrupted noise method, with the sound source at a single position, to determine the reverberation times, T , over the same frequency

range. Six decays in total were recorded at three different positions within the receive room and subsequently averaged.

The 1/3 octave band results were then compared with a standard curve using the method described in BS EN ISO 717-2: 1997 to determine the single figure descriptor of impact sound insulation, the Weighted Standardised Impact Sound Pressure level, $L'_{nT,w}$.

The comments in Section 2.3 regarding background noise measurements also apply to the impact sound insulation test method.

2.5 Notifications

All efforts were made to ensure procedures in the above standards and regulations were followed. The following sections describe any deviations from the guidance and provide a commentary on our procedures in relation to each.

Background Noise Levels

BS EN ISO 140-4:1998 and BS EN ISO 140 -7: 1998 expect the following correction to be made if the difference between the background noise and receive room noise levels are less than 10dB or more than or equal to 6dB in any frequency band:

$$L = 10\log(10^{L_R/10} - 10^{L_B/10})$$

Where

L is the adjusted signal level, in dB

L_R is the receive noise level, in dB

L_B is the background noise level, in dB

If the difference between the background and receive room noise levels are less than 6dB then the above calculation is replaced by a 1.3dB correction which is subtracted from the receive level. These values are considered the limit of measurement (i.e. limited by high background noise levels on site).

Background noise during testing was dominated by DESCRIBE. Every effort was made to minimise the effect of background noise, however in some cases background noise corrections have been made. Such corrections are indicated on the attached Figures X-X and in Table 5, Table 6 and Table 7. The actual performance of the structure is likely to be better than that measured and shown in the applicable graphs.

We consider the notifications described above to have had an insignificant effect on pass or fail results presented within this report.

3. SOUND INSULATION CRITERIA

3.1 Building Regulations

Approved Document E (2003 Edition incorporating 2004, 2010 and 2015 amendments) sets the following requirements for the sound insulation performance of separating walls and floors within dwelling-houses and flats formed by material change of use:

Airborne

A minimum weighted standardised level difference plus spectrum adaptation term ($D_{nT,w} + C_{tr}$) of 43dB.

Impact

A maximum weighted standardised impact sound pressure level ($L'_{nT,w}$) of 64dB.

4. MEASUREMENTS

Measurements were undertaken between the following rooms:

Table 2 – Separating Wall Measurement Room Details (Airborne)

Test	Test Type	Source Room			Receive Room			Structure Tested
		Plot	Room	Vol (m ³)	Plot	Room	Vol (m ³)	
1	Airborne	7	Kitchen/Living/Dining	55	8	Kitchen/Living/Dining	55	Wall
2	Airborne	7	Bedroom	46	8	Bedroom	46	Wall
3	Airborne	4	Kitchen/Living/Dining	53	5	Kitchen/Living/Dining	48	Wall
4	Airborne	5	Bedroom	26	4	Bedroom	24	Wall

Table 3 – Separating Floor Measurement Room Details (Airborne)

Test	Test Type	Source Room			Receive Room			Structure Tested
		Plot	Room	Vol (m ³)	Plot	Room	Vol (m ³)	
5	Airborne	8	Kitchen/Living/Dining	53	2	Kitchen/Living/Dining	53	Floor
6	Airborne	8	Bedroom	27	2	Bedroom	25	Floor
7	Airborne	7	Kitchen/Living/Dining	55	1	Kitchen/Living/Dining	55	Floor
8	Airborne	10	Bedroom	50	4	Bedroom	24	Floor

Table 4 – Separating Floor Measurement Room Details (Impact)

Test	Test Type	Source Room			Receive Room			Structure Tested
		Plot	Room	Vol (m ³)	Plot	Room	Vol (m ³)	
9	Impact	8	Kitchen/Living/Dining	53	2	Kitchen/Living/Dining	53	Floor
10	Impact	8	Bedroom	27	2	Bedroom	25	Floor
11	Impact	7	Kitchen/Living/Dining	55	1	Kitchen/Living/Dining	55	Floor
12	Impact	10	Bedroom	50	4	Bedroom	24	Floor

5. RESULTS

The results of the airborne sound insulation and impact sound transmission measurements made are presented on the attached Figures 1-12.

For summary purposes the single figure $D_{nT,w} + C_{tr}$ and $L'_{nT,w}$ values are given below:

Table 5 – Separating Wall Airborne Sound Insulation

Test	Source Room		Receive Room		$D_{nT,w} + C_{tr}$ (dB)	Minimum Requirement	Comment
	Plot	Room	Plot	Room			
1	7	Kitchen/Living/Dining	8	Kitchen/Living/Dining	53*	43	Pass
2	7	Bedroom	8	Bedroom	46	43	Pass
3	4	Kitchen/Living/Dining	5	Kitchen/Living/Dining	54*	43	Pass
4	5	Bedroom	4	Bedroom	55*	43	Pass

Table 6 – Separating Floor Airborne Sound Insulation

Test	Source Room		Receive Room		$D_{nT,w} + C_{tr}$ (dB)	Minimum Requirement	Comment
	Plot	Room	Plot	Room			
5	8	Kitchen/Living/Dining	2	Kitchen/Living/Dining	53*	43	Pass
6	8	Bedroom	2	Bedroom	52	43	Pass
7	7	Kitchen/Living/Dining	1	Kitchen/Living/Dining	53*	43	Pass
8	10	Bedroom	4	Bedroom	52*	43	Pass

Table 7 – Separating Floor Impact Sound Transmission

Test	Source Room		Receive Room		$L'_{nT,w}$ (dB)	Maximum Requirement	Comment
	Plot	Room	Plot	Room			
9	8	Kitchen/Living/Dining	2	Kitchen/Living/Dining	52	64	Pass
10	8	Bedroom	2	Bedroom	53	64	Pass
11	7	Kitchen/Living/Dining	1	Kitchen/Living/Dining	55*	64	Pass
12	10	Bedroom	4	Bedroom	54	64	Pass

* Results at the limit of measurement, i.e. limited by high background noise levels on site. The actual performance of the structure is likely to be greater than that measured and shown in the attached graph.

6. DISCUSSION

The levels of airborne sound insulation measured across the separating walls and floors meet and exceed the requirements of the Building Regulations and, as such, should be considered acceptable.

Similarly, the levels of impact sound insulation measured across the separating floors meet and exceed the requirements of the Building Regulations and, as such, should be considered acceptable.

7. CONCLUSIONS

RBA Acoustics have undertaken sound insulation testing of the separating wall and floor constructions at 128 Milton Road, Gravesend. This report details the results of the measurements and provides comparisons with the performance standards for dwelling houses and flats formed by material change of use within Approved Document E (2003 Edition incorporating 2004, 2010 and 2015 amendments) and the enhanced project requirements.

We are pleased to conclude that all tests meet and exceed the airborne and impact sound insulation standards detailed within Approved Document E.

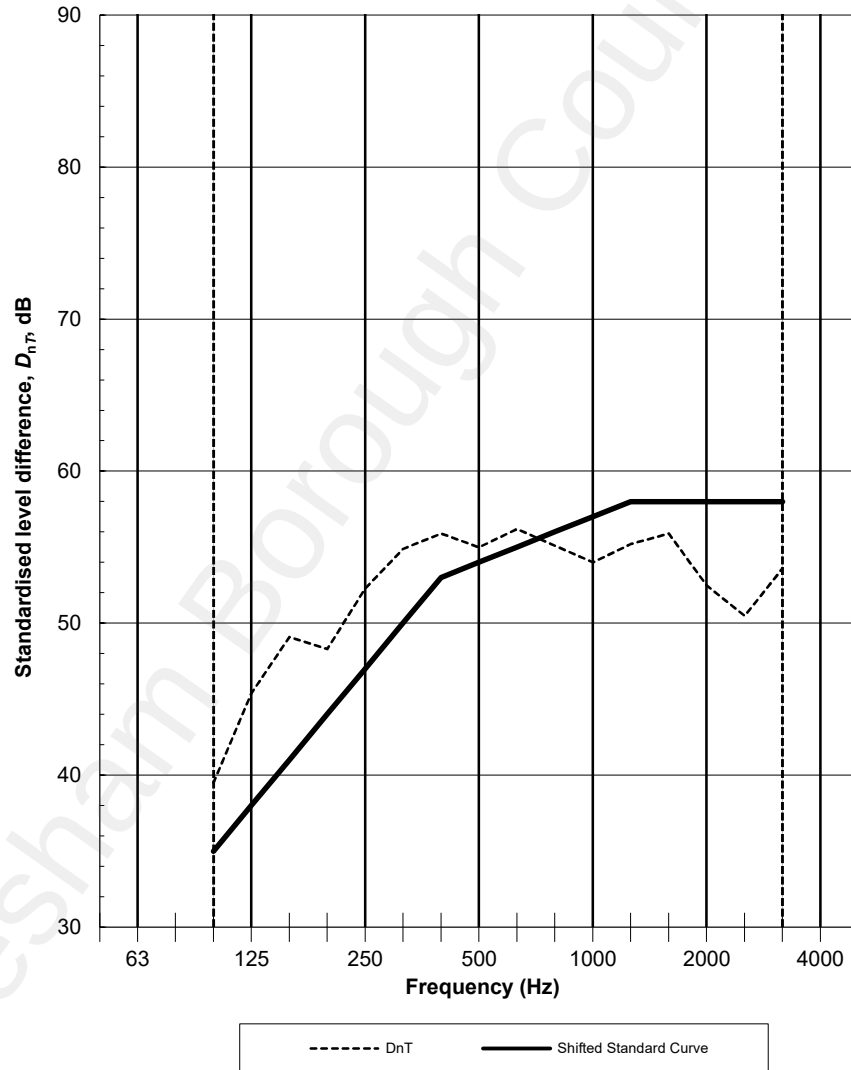
128 Milton Road, Gravesend
7 Kitchen/Living/Dining to 8 Kitchen/Living/Dining

Standardised Level Difference According to ISO 140-4
Field Measurement of Airborne Sound Insulation Between Rooms

Construction Under Test:

1No. layer of 15mm acoustic board to both sides
1No. layer of 20mm shaftwall board to both sides
1No. layer of 12mm plywood board to both sides
Timber studs w/ 50mm separation gap

Frequency f (Hz)	D_{nT} (dB)
50	
63	
80	
100	39.5
125	45.4
160	49.1
200	48.3
250	52.3
315	54.9
400	55.9
500	55.0
630	56.2
800	55.1
1000	≥ 54.0
1250	≥ 55.2
1600	≥ 55.9
2000	52.5
2500	50.5
3150	53.6
4000	
5000	



* Performance limited
by background noise level

Rating according to
BS EN ISO 717-1

$D_{nT,w} (C; C_{tr})$ 54 (-1; -1) dB

Evaluation based on field measurement results obtained in one-third-octave bands by an engineering method

Test undertaken by:

Source Room Volume: 55 m³

Receiving Room Volume: 55 m³

Client: Maison Build

Test Date: 06/01/2022

ANC Task No.: 113/74242

RBA Acoustics

Project 11366

Figure 1

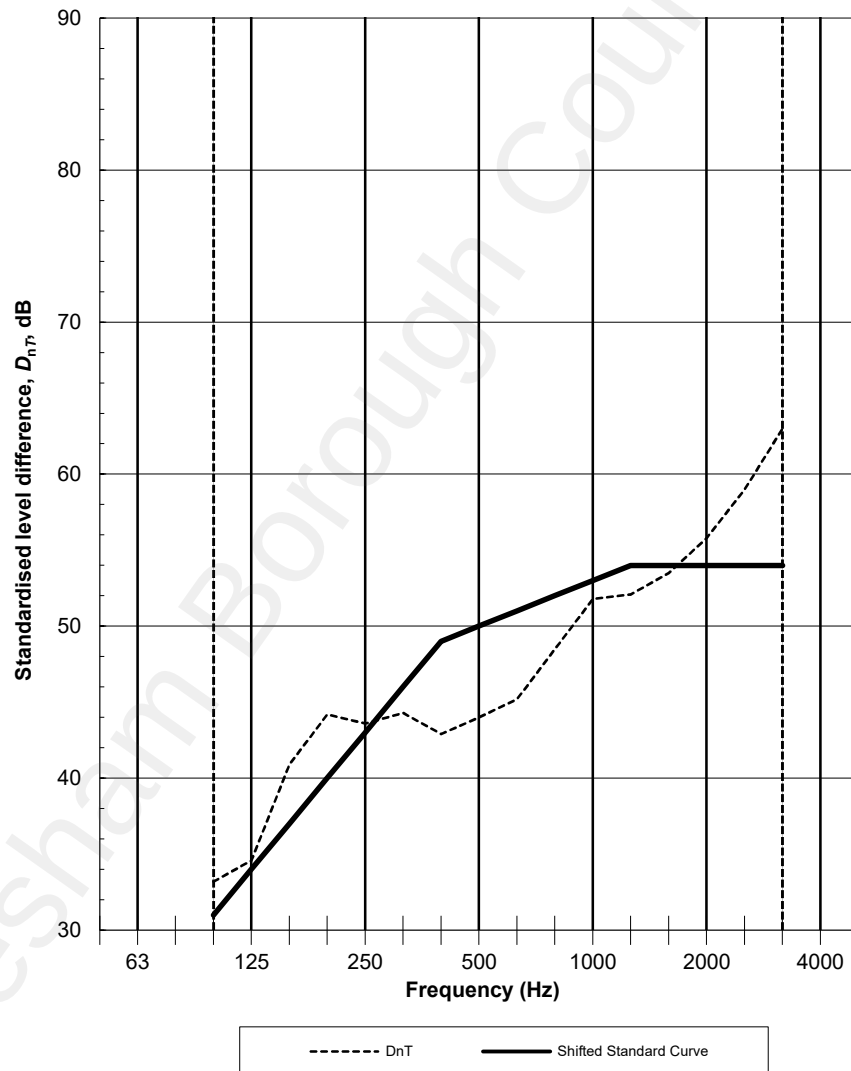
128 Milton Road, Gravesend
7 Bedroom to 8 Bedroom

Standardised Level Difference According to ISO 140-4
Field Measurement of Airborne Sound Insulation Between Rooms

Construction Under Test:

1No. layer of 15mm acoustic board to both sides
1No. layer of 20mm shaftwall board to both sides
1No. layer of 12mm plywood board to both sides
Timber studs w/ 50mm separation gap

Frequency f (Hz)	D_{nT} (dB)
50	
63	
80	
100	33.2
125	34.6
160	40.9
200	44.2
250	43.6
315	44.3
400	42.9
500	44.0
630	45.2
800	48.5
1000	51.8
1250	52.1
1600	53.5
2000	55.8
2500	59.0
3150	63.0
4000	
5000	



Rating according to
BS EN ISO 717-1

$D_{nT,w}$ (C; C_{tr}) 50 (-1; -4) dB

Evaluation based on field measurement results obtained in one-third-octave bands by an engineering method

Test undertaken by:

R. Ashall

Source Room Volume: 46 m³

Receiving Room Volume: 46 m³

Client: Maison Build

Test Date: 07/03/2022

ANC Task No.: 113/74242

RBA Acoustics

Project 11366

Figure 2

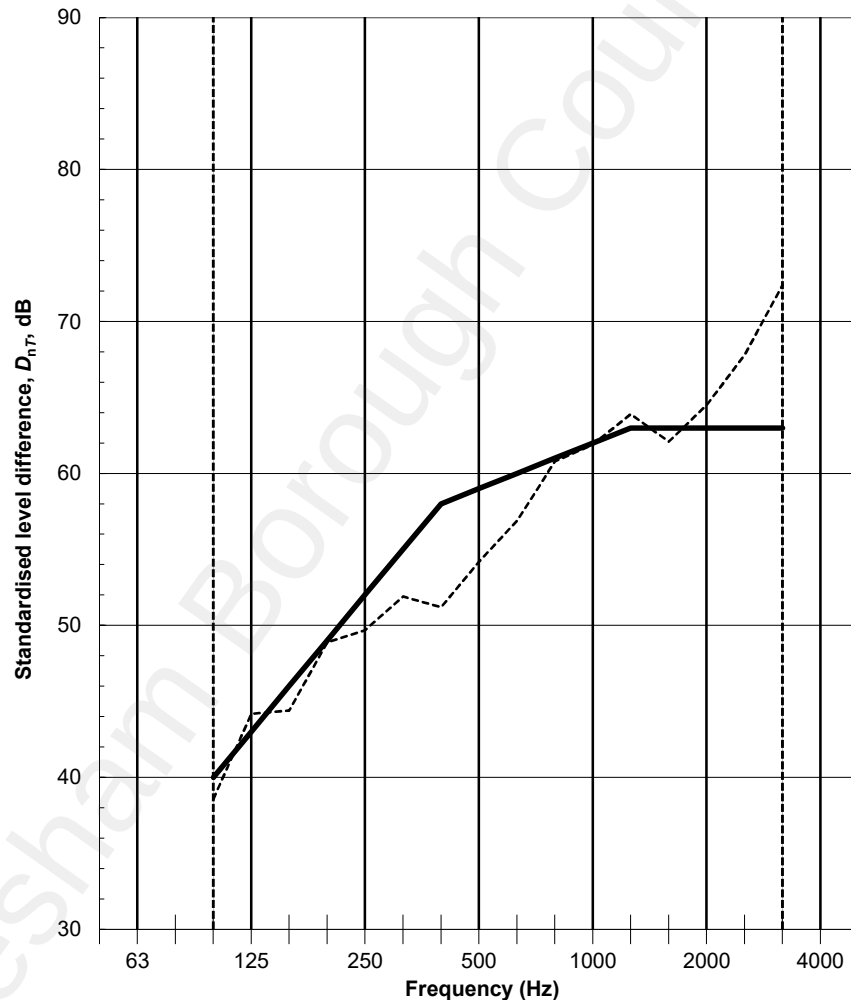
128 Milton Road, Gravesend
4 Kitchen/Living/Dining to 5 Kitchen/Living/Dining

Standardised Level Difference According to ISO 140-4
Field Measurement of Airborne Sound Insulation Between Rooms

Construction Under Test:

1No. layer of 15mm acoustic board to both sides
1No. layer of 20mm shaftwall board to both sides
1No. layer of 12mm plywood board to both sides
Timber studs w/ 50mm separation gap

Frequency f (Hz)	D_{nT} (dB)
50	
63	
80	
100	38.6
125	44.2
160	44.4
200	48.9
250	49.7
315	51.9
400	51.2
500	54.2
630	56.9
800	60.8
1000	61.9
1250	63.9
1600	≥ 62.1
2000	≥ 64.5
2500	67.8
3150	≥ 72.4
4000	
5000	



* Performance limited
by background noise level

Rating according to
BS EN ISO 717-1

$D_{nT,w} (C; C_{tr})$ 59 (-1; -5) dB

Evaluation based on field measurement results obtained in one-third-octave bands by an engineering method

Test undertaken by:

R. Ashwell

Source Room Volume: 53 m³

Receiving Room Volume: 48 m³

Client: Maison Build

Test Date: 07/03/2022

ANC Task No.: 113/74242

RBA Acoustics

Project 11366

Figure 3

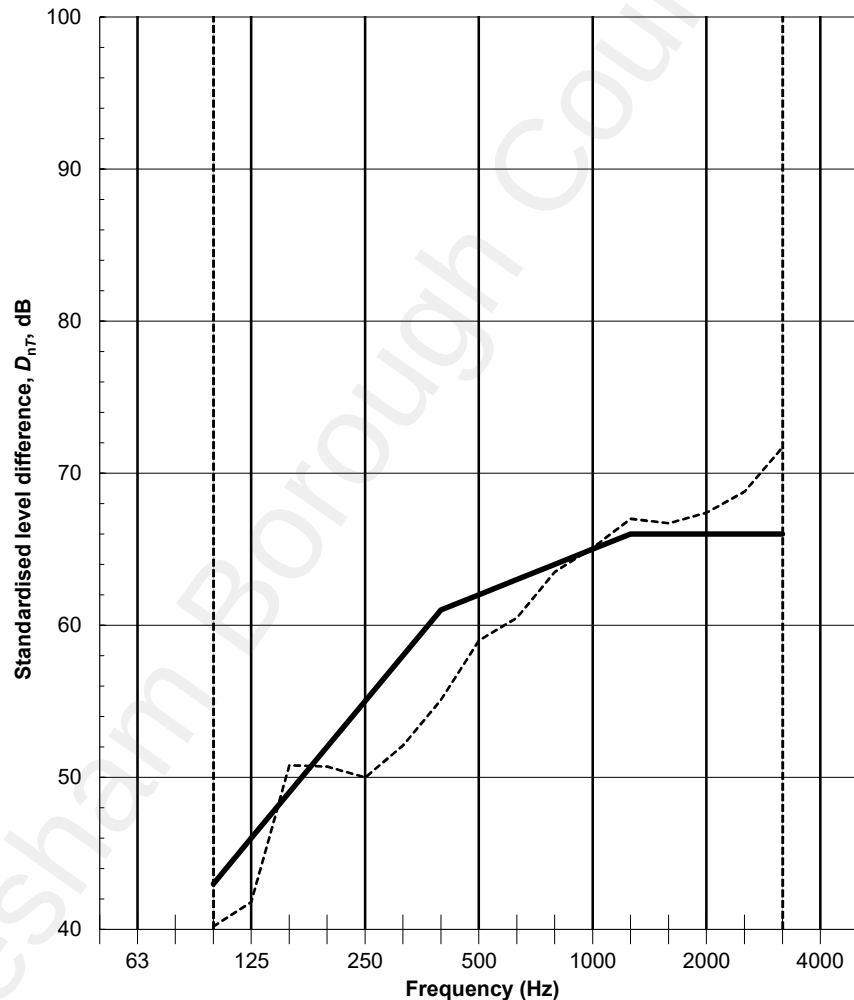
**128 Milton Road, Gravesend
5 Bedroom to 4 Bedroom**

**Standardised Level Difference According to ISO 140-4
Field Measurement of Airborne Sound Insulation Between Rooms**

Construction Under Test:

**1No. layer of 15mm acoustic board to both sides
1No. layer of 20mm shaftwall board to both sides
1No. layer of 12mm plywood board to both sides
Timber studs w/ 50mm separation gap**

Frequency <i>f</i> (Hz)	<i>D</i> _{nT} (dB)
50	
63	
80	
100	40.2
125	41.8
160	50.8
200	50.7
250	50.0
315	52.1
400	55.1
500	59.0
630	60.5
800	63.5
1000	65.1
1250	67.0
1600	≥66.7 *
2000	67.4
2500	68.8
3150	71.7
4000	
5000	



* Performance limited
by background noise level

Rating according to
BS EN ISO 717-1

***D*_{nT,w} (*C*; *C*_{tr}) 62 (-2; -7) dB**

Evaluation based on field measurement results obtained in one-third-octave bands by an engineering method

Test undertaken by:

R. Ashwell

Source Room Volume: 26 m³

Receiving Room Volume: 24 m³

Client: Maison Build

Test Date: 07/03/2022

ANC Task No.: 113/74242

RBA Acoustics

Project 11366

Figure 4

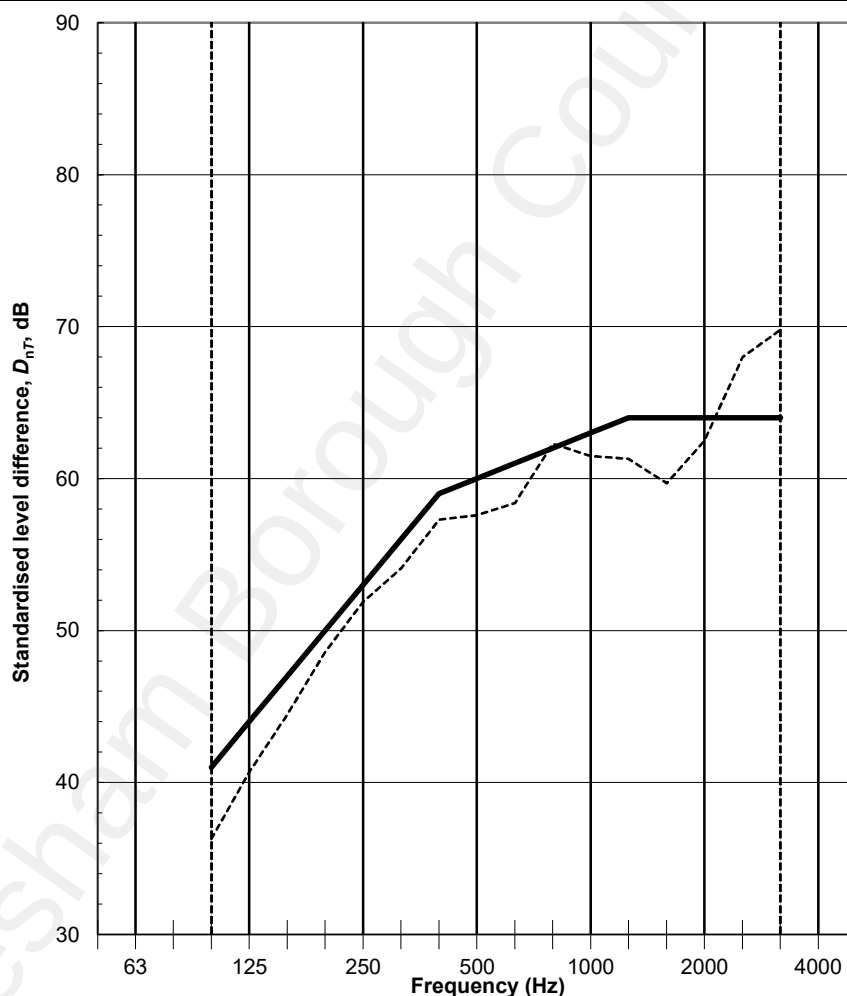
128 Milton Road, Gravesend
8 Kitchen/Living/Dining to 2 Kitchen/Living/Dining

Standardised Level Difference According to ISO 140-4
Field Measurement of Airborne Sound Insulation Between Rooms

Construction Under Test:

1No. layer of dB Cement Panel acoustic floor 28
 Plywood floor deck
 300mm timber Posi-Joists with dense plasterboard
 2No. layers of 12.5mm Fireline Gyproc boards
 Service void with acoustic insulation
 1No. layer of 15mm dense plasterboard

Frequency f (Hz)	D_{nT} (dB)
50	
63	
80	
100	36.3
125	40.7
160	44.5
200	48.6
250	51.9
315	54.1
400	57.3
500	57.6
630	58.4
800	≥62.3
1000	≥61.5
1250	≥61.3
1600	≥59.7
2000	≥62.5
2500	≥68.0
3150	≥69.8
4000	
5000	



* Performance limited
 by background noise level

Rating according to
 BS EN ISO 717-1

$D_{nT,w}$ (C; C_{tr}) 60 (-2; -7) dB

Evaluation based on field measurement results obtained in one-third-octave bands by an engineering method

Test undertaken by:

[Signature]

Source Room Volume: 53 m³

Receiving Room Volume: 53 m³

Client: Maison Build

Test Date: 06/01/2022

ANC Task No.: 113/74242

RBA Acoustics

Project 11366

Figure 5

128 Milton Road, Gravesend

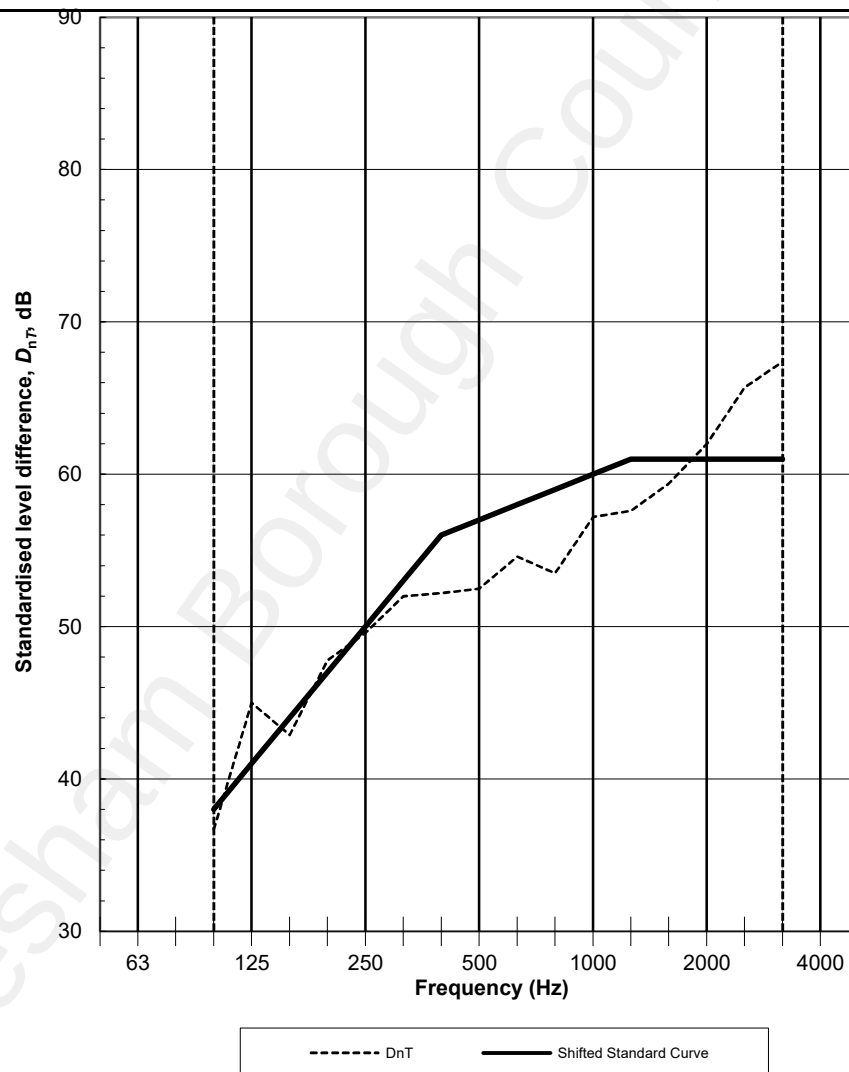
8 Bedroom to 2 Bedroom

Standardised Level Difference According to ISO 140-4 Field Measurement of Airborne Sound Insulation Between Rooms

Construction Under Test:

1No. layer of dB Cement Panel acoustic floor 28
Plywood floor deck
300mm timber Posi-Joists with dense plasterboard
2No. layers of 12.5mm Fireline Gyproc boards
Service void with acoustic insulation
1No. layer of 15mm dense plasterboard

Frequency f (Hz)	D_{nT} (dB)
50	
63	
80	
100	36.7
125	45.0
160	42.9
200	47.8
250	49.6
315	52.0
400	52.2
500	52.5
630	54.6
800	53.5
1000	57.2
1250	57.6
1600	59.4
2000	62.0
2500	65.7
3150	67.4
4000	
5000	



Rating according to
BS EN ISO 717-1

$D_{nT, w} (C; C_{tr})$ 57 (-1; -5) dB

Evaluation based on field measurement results obtained in one-third-octave bands by an engineering method

Test undertaken by:

AK Red

Source Room Volume: 27 m³

Receiving Room Volume: 25 m³

Client: Maison Build

Test Date: 06/01/2022

ANC Task No.: 113/74242

RBA Acoustics

Project 11366

Figure 6

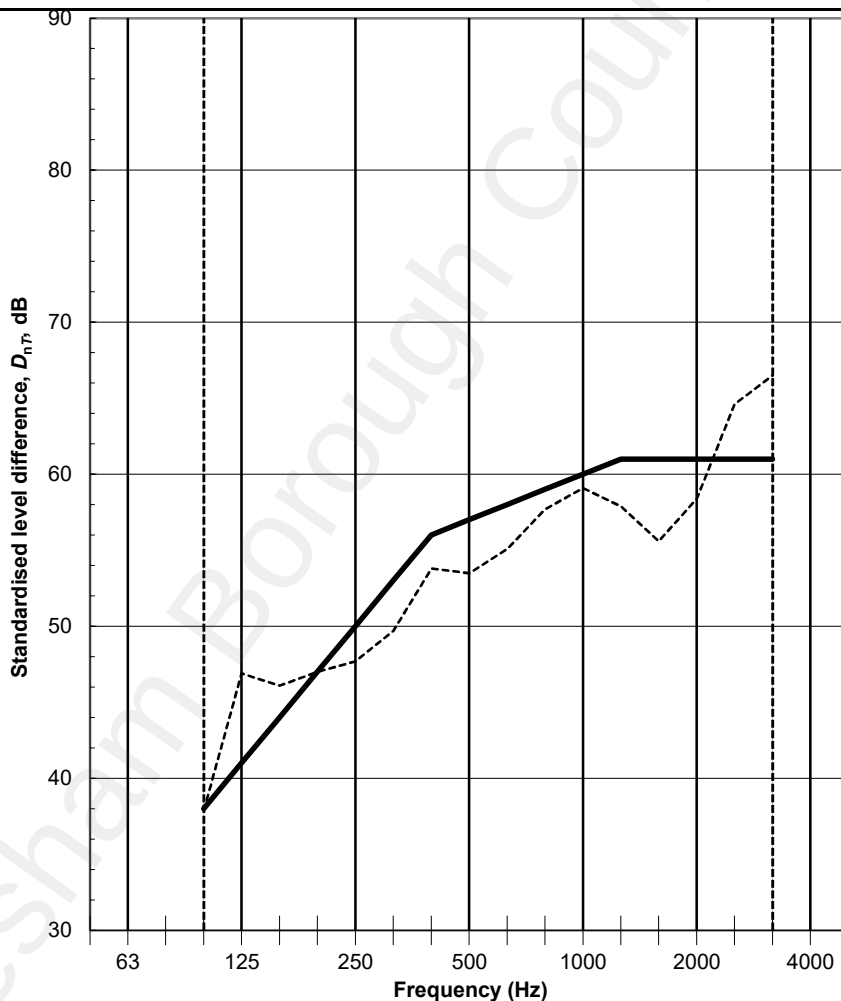
128 Milton Road, Gravesend
7 Kitchen/Living/Dining to 1 Kitchen/Living/Dining

Standardised Level Difference According to ISO 140-4
Field Measurement of Airborne Sound Insulation Between Rooms

Construction Under Test:

1No. layer of dB Cement Panel acoustic floor 28
 Plywood floor deck
 300mm timber Posi-Joists with dense plasterboard
 2No. layers of 12.5mm Fireline Gyproc boards
 Service void with acoustic insulation
 1No. layer of 15mm dense plasterboard

Frequency <i>f</i> (Hz)	<i>D_{nT}</i> (dB)
50	
63	
80	
100	37.9
125	46.9
160	46.1
200	47.0
250	47.7
315	49.7
400	53.8
500	53.5
630	55.1
800	57.7
1000	≥59.1 *
1250	≥57.9 *
1600	≥55.6 *
2000	≥58.4 *
2500	≥64.6 *
3150	≥66.5 *
4000	
5000	



* Performance limited
 by background noise level

Rating according to
 BS EN ISO 717-1

***D_{nT,w}* (*C*; *C_{tr}*) 57 (-1; -4) dB**

Evaluation based on field measurement results obtained in one-third-octave bands by an engineering method

Test undertaken by:

AKed

Source Room Volume: 55 m³

Receiving Room Volume: 55 m³

Client: Maison Build

Test Date: 06/01/2022

ANC Task No.: 113/74242

RBA Acoustics

Project 11366

Figure 7

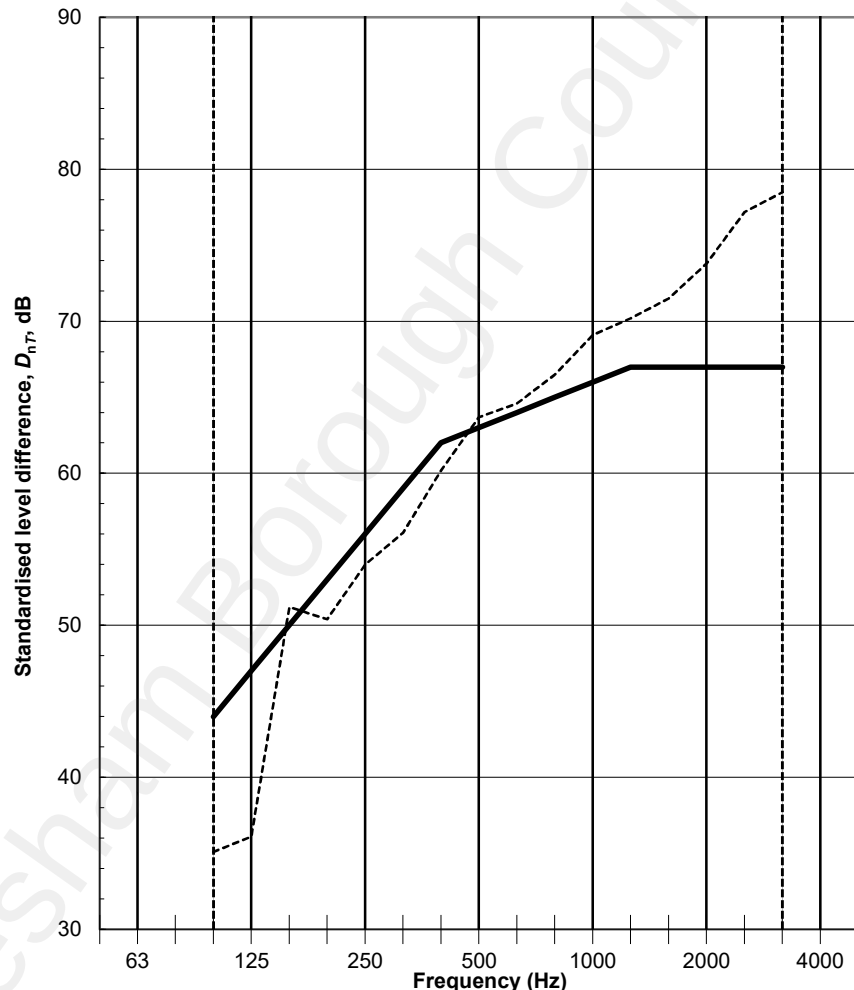
**128 Milton Road, Gravesend
10 Bedroom to 4 Bedroom**

**Standardised Level Difference According to ISO 140-4
Field Measurement of Airborne Sound Insulation Between Rooms**

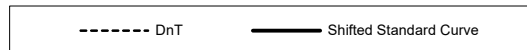
Construction Under Test:

1No. layer of dB Cement Panel acoustic floor 28
Plywood floor deck
300mm timber Posi-Joists with dense plasterboard
2No. layers of 12.5mm Fireline Gyproc boards
Service void with acoustic insulation
1No. layer of 15mm dense plasterboard

Frequency <i>f</i> (Hz)	<i>D_{nT}</i> (dB)
50	
63	
80	
100	35.1
125	36.1
160	51.2
200	50.4
250	54.0
315	56.1
400	60.2
500	63.7
630	64.6
800	66.5
1000	69.1
1250	≥70.2
1600	≥71.5
2000	≥73.8
2500	≥77.2
3150	≥78.5
4000	
5000	



* Performance limited
by background noise level



Rating according to
BS EN ISO 717-1

***D_{nT,w}* (C; C_{tr}) 63 (-4; -11) dB**

Evaluation based on field measurement results obtained in one-third-octave bands by an engineering method

Test undertaken by:

R. Ashwell

Source Room Volume: 50 m³

Receiving Room Volume: 24 m³

Client: Maison Build

Test Date: 07/03/2022

ANC Task No.: 113/74242

RBA Acoustics

Project 11366

Figure 8

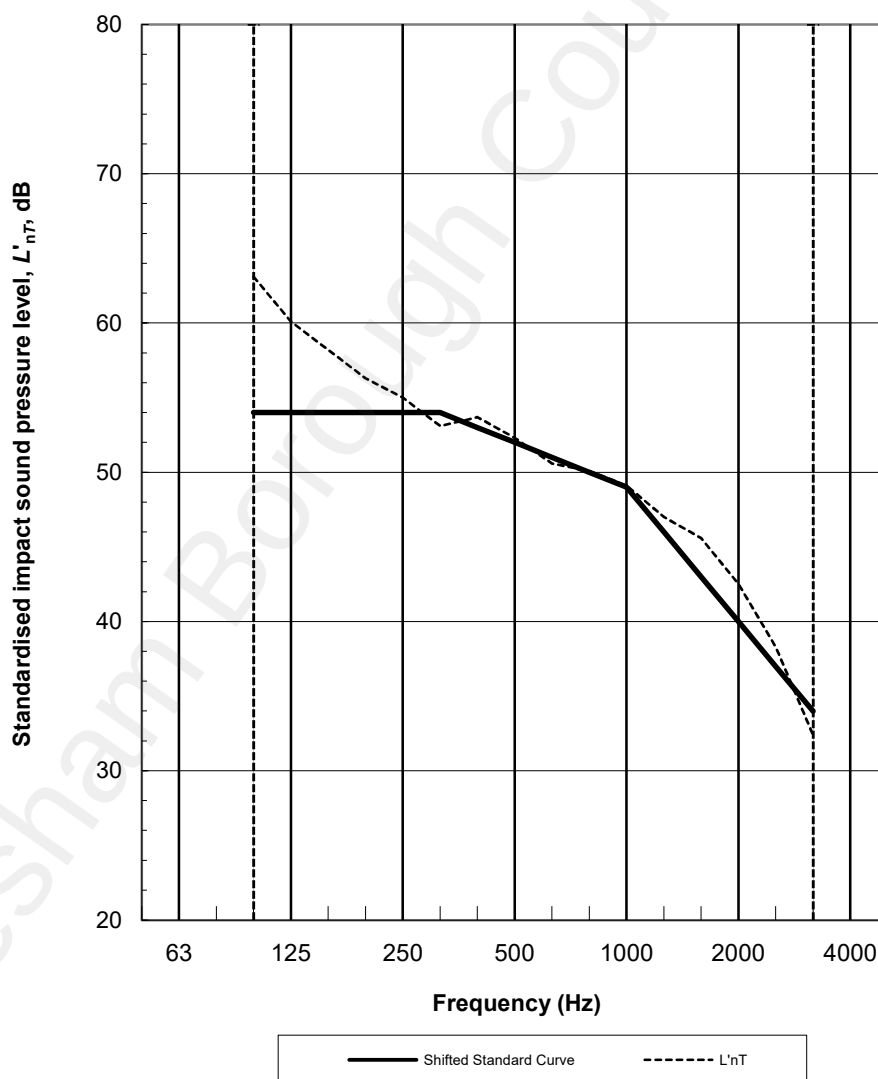
128 Milton Road, Gravesend
8 Kitchen/Living/Dining to 2 Kitchen/Living/Dining

Standardised Impact Sound Pressure Levels According to ISO 140-7
Field Measurements of Impact Sound Insulation of Floors

Construction Under Test:

1No. layer of dB Cement Panel acoustic floor 28
 Plywood floor deck
 300mm timber Posi-Joists with dense plasterboard
 2No. layers of 12.5mm Fireline Gyproc boards
 Service void with acoustic insulation
 1No. layer of 15mm dense plasterboard

Frequency f (Hz)	L'_{nT} (dB)
50	
63	
80	
100	63.1
125	60.1
160	58.2
200	56.3
250	55.0
315	53.1
400	53.7
500	52.3
630	50.6
800	50.1
1000	49.1
1250	47.0
1600	45.6
2000	42.5
2500	38.3
3150	32.4
4000	
5000	



Rating according to
 BS EN ISO 717-2

$L'_{nT,w}$ (C_I) 52 (0) dB

Evaluation based on field measurement results obtained in one-third-octave bands by an engineering method

Test undertaken by:

[Signature]

Receiving Room Volume: 53 m³

Client: Maison Build

Test Date: 06/01/2022

ANC Task No.: 113/74242

RBA Acoustics

Project 11366

Figure 9

128 Milton Road, Gravesend

8 Bedroom to 2 Bedroom

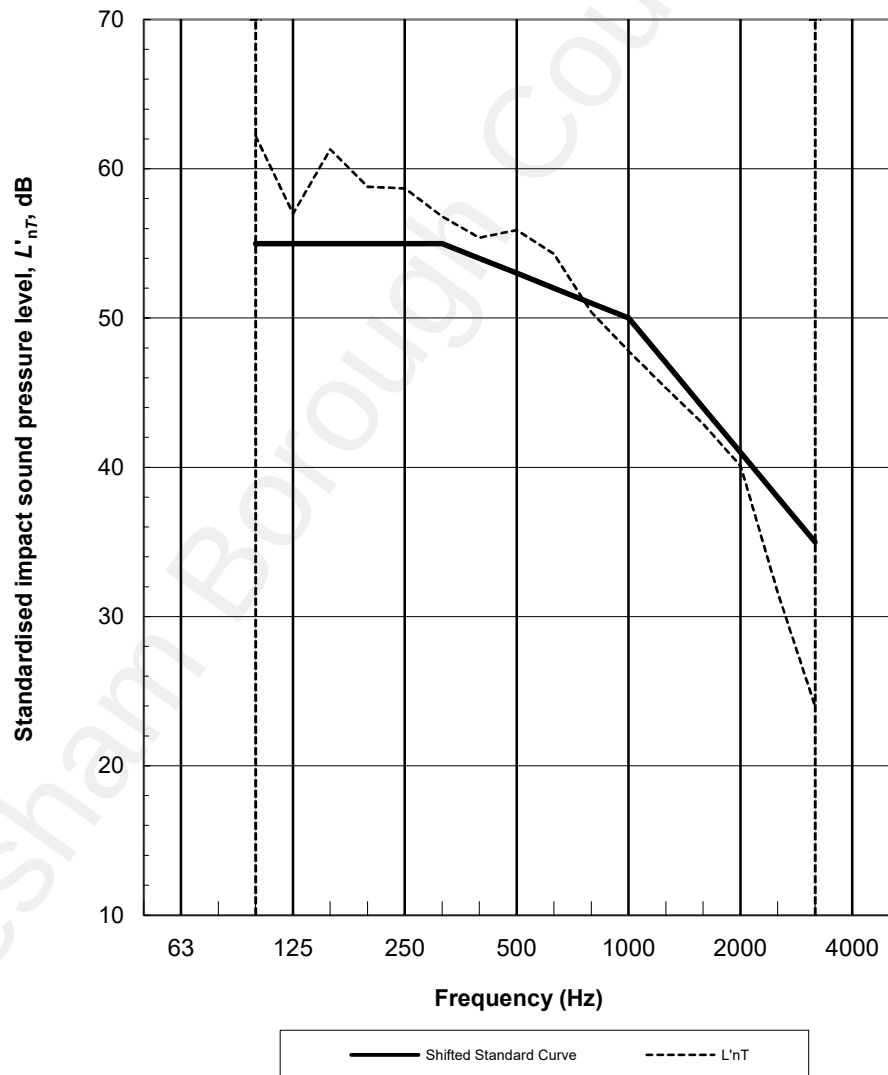
Standardised Impact Sound Pressure Levels According to ISO 140-7

Field Measurements of Impact Sound Insulation of Floors

Construction Under Test:

1No. layer of dB Cement Panel acoustic floor 28
Plywood floor deck
300mm timber Posi-Joists with dense plasterboard
2No. layers of 12.5mm Fireline Gyproc boards
Service void with acoustic insulation
1No. layer of 15mm dense plasterboard

Frequency f (Hz)	L'_{nT} (dB)
50	
63	
80	
100	62.2
125	57.0
160	61.3
200	58.8
250	58.7
315	56.8
400	55.4
500	55.9
630	54.3
800	50.4
1000	47.8
1250	45.3
1600	42.9
2000	40.1
2500	31.6
3150	24.0
4000	
5000	



Rating according to
BS EN ISO 717-2

$L'_{nT,w} (C_I)$ **53 (0) dB**

Evaluation based on field measurement results obtained in one-third-octave bands by an engineering method

Test undertaken by:

Receiving Room Volume: 25 m³

Client: Maison Build

Test Date: 06/01/2022

ANC Task No.: 113/74242

RBA Acoustics

Project 11366

Figure 10

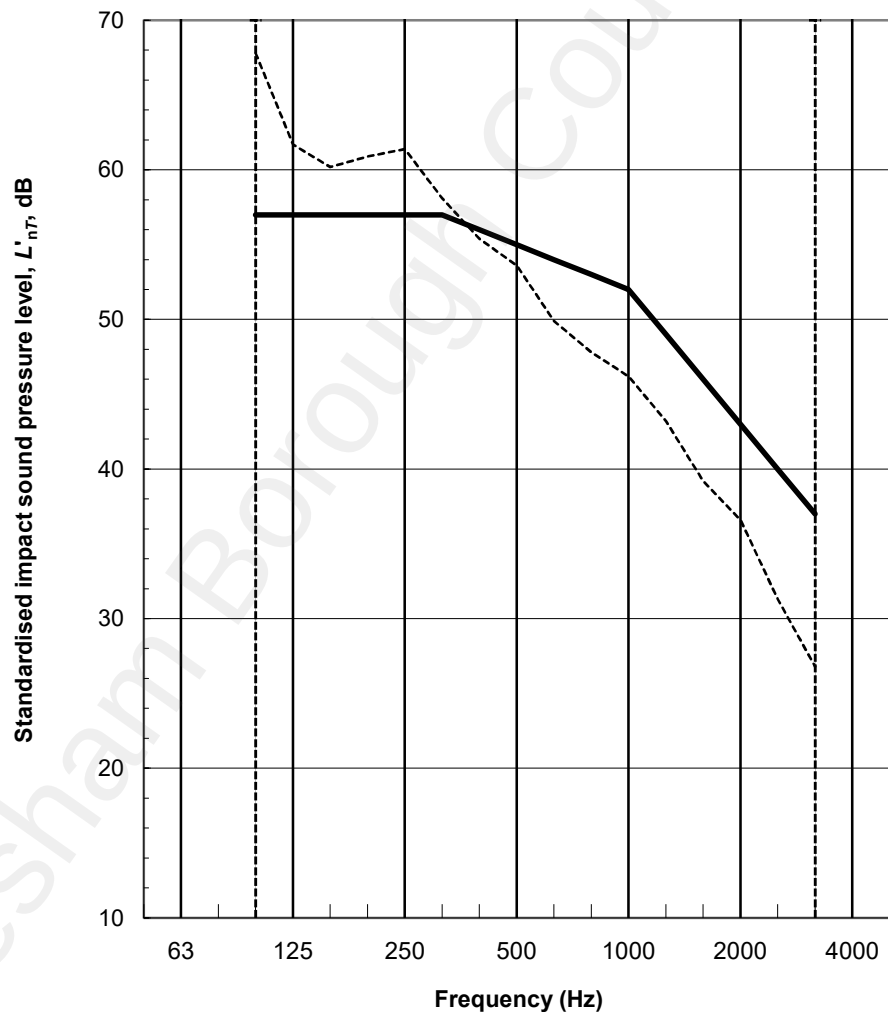
128 Milton Road, Gravesend
7 Kitchen/Living/Dining to 1 Kitchen/Living/Dining

Standardised Impact Sound Pressure Levels According to ISO 140-7
Field Measurements of Impact Sound Insulation of Floors

Construction Under Test:

1No. layer of dB Cement Panel acoustic floor 28
 Plywood floor deck
 300mm timber Posi-Joists with dense plasterboard
 2No. layers of 12.5mm Fireline Gyproc boards
 Service void with acoustic insulation
 1No. layer of 15mm dense plasterboard

Frequency f (Hz)	L'_{nT} (dB)
50	
63	
80	
100	67.8
125	61.7
160	60.2
200	60.9
250	61.4
315	58.1
400	55.4
500	53.6
630	49.9
800	47.8
1000	46.2
1250	43.2
1600	≤39.2
2000	≤36.6
2500	31.3
3150	≤26.8
4000	
5000	



* Performance limited
by background noise level

Rating according to
BS EN ISO 717-2

$L'_{nT,w} (C_I)$ 55* (1) dB

Evaluation based on field measurement results obtained in one-third-octave bands by an engineering method

Test undertaken by:

Handwritten signature

Receiving Room Volume: 55 m³

Client: Maison Build

Test Date: 06/01/2022

ANC Task No.: 113/74242

RBA Acoustics

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Figure 11

128 Milton Road, Gravesend

10 Bedroom to 4 Bedroom

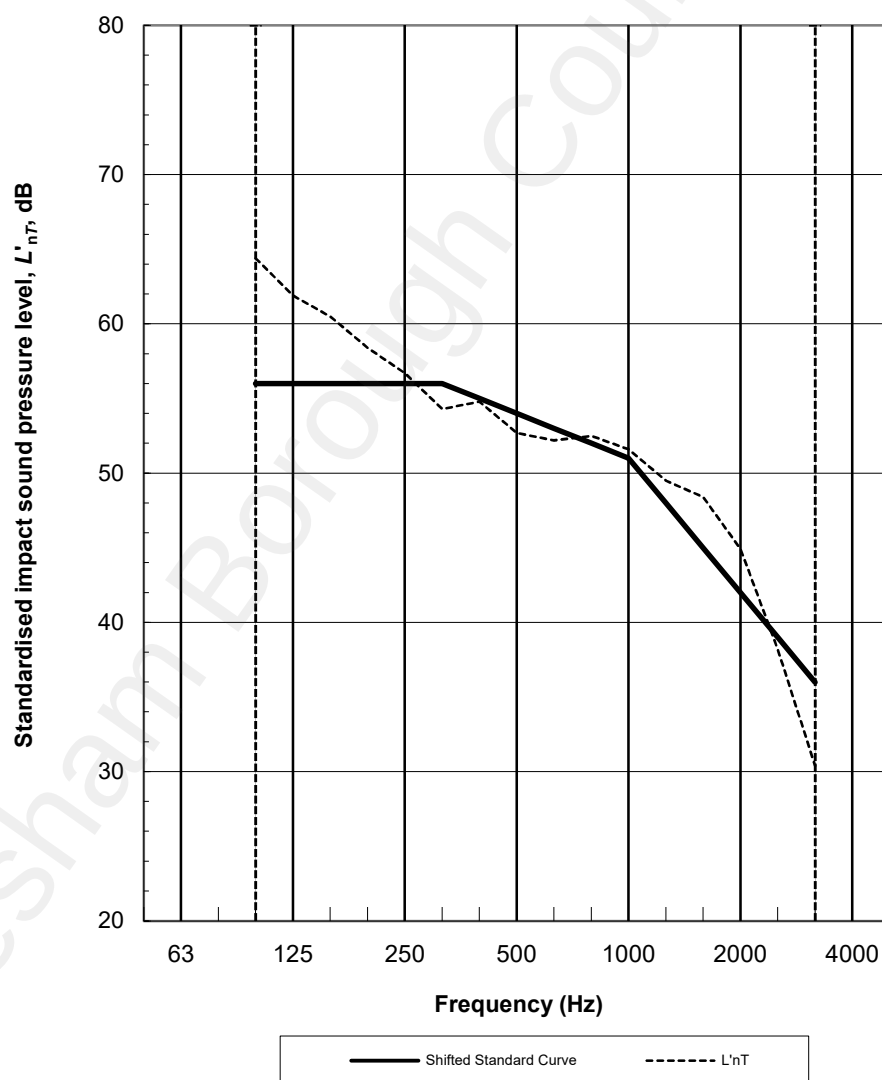
Standardised Impact Sound Pressure Levels According to ISO 140-7

Field Measurements of Impact Sound Insulation of Floors

Construction Under Test:

1No. layer of dB Cement Panel acoustic floor 28
Plywood floor deck
300mm timber Posi-Joists with dense plasterboard
2No. layers of 12.5mm Fireline Gyproc boards
Service void with acoustic insulation
1No. layer of 15mm dense plasterboard

Frequency f (Hz)	L'_{nT} (dB)
50	
63	
80	
100	64.4
125	61.9
160	60.5
200	58.4
250	56.7
315	54.3
400	54.8
500	52.7
630	52.2
800	52.5
1000	51.6
1250	49.5
1600	48.4
2000	44.9
2500	38.2
3150	30.4
4000	
5000	



Rating according to
BS EN ISO 717-2

$L'_{nT,w} (C_I)$ **54 (0) dB**

Evaluation based on field measurement results obtained in one-third-octave bands by an engineering method

Test undertaken by:

R. Ashall

Receiving Room Volume:

24 m³

Client: Maison Build

Test Date: 07/03/2022

ANC Task No.: 113/74242

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Figure 12

RBA ACOUSTICS

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