Sound Advice
ACOUSTICS LTD
[redacted]
2 West Links, Tollgate, Chandlers Ford, Hampshire, SO53 3TG

Document Reference:	SA.SI.106.10092
Report Date:	28.02.2025
Test Date:	27.02.2025

AIRBORNE & IMPACT SOUND INSULATION TESTS

UKAS TESTING
4035

Client

Landlords Direct

Site Address

3 & 4 Queens Square
Bognor Regis
West Sussex
PO21 1SA

Development Status

The site is a development of Dwelling-houses and Flats Formed by material change of use table 0.1a of Building Regulations Approved Document E 2003 'Resistance to the Passage of Sound'.

Introduction

Sound Advice Acoustics Ltd has been instructed to assess the sound insulation values between the properties within this recently completed site. The development's sound insulation tests are to be carried out and rated in accordance with following British Standards:-

BS EN ISO 140-4:1998 – 'Acoustics – Measurement of Sound Insulation in Buildings and of Building Elements. Part 4 'Field Measurement of Airborne Sound Insulation Between Rooms'

BS EN ISO 140-7:1998 – 'Acoustics – Measurement of Sound Insulation in Buildings and of Building Elements. Part 7 'Field Measurement of Impact Sound Insulation of Floors.

BS EN ISO 717-1:1997 – 'Acoustics - 'Rating of Sound Insulation in Buildings and of Building Elements: Part 1. Airborne Sound Insulation'

BS EN ISO 717-2:1997 – 'Acoustics - 'Rating of Sound Insulation in Buildings and of Building Elements: Part 2. Impact Sound Insulation'.

These results are then assessed generally in accordance with the Building Regulations Approved Document E 2003 'Resistance to the Passage of Sound' in order to indicate compliance. The attached data sheets (figures 1 – 6 inclusive) give details as to the individual performance of each of the elements tested between the properties and should be read in conjunction with this report. Opinions and interpretations contained in this report are clearly marked (by the use blue italic text) and are outside the scope of the organisation's scope of accreditation. Corrections to a report are highlighted in Red.

Criteria

For purpose built dwellings or dwellings formed by material change of use, the Building Regulations Approved Document E 2003 'Resistance to the Passage of Sound' requires separating structures to adhere to the following requirements as detailed in table 0.1a of the below document.

Table 0.1a:	Dwelling-houses and flats – performance standards for separating walls, separating floors, and stairs that have a separating function	
	Airborne Sound insulation $D_{nT'w} + C_{tr}$ dB (Minimum values)	Impact Sound Insulation $L'_{nT'w}$ dB (Maximum values)
Purpose built dwelling-houses and flats		
Walls	45	-
Floors and Stairs	45	62
Dwelling-houses and flats Formed by material change of use		
Walls	43	-
Floors and Stairs	43	64

Authentication Signature

REPORT COMPILED BY

Mr. M Grist
Sound
Technician
[redacted]

Executive Summary

The following tables illustrate the summary of the achieved results carried out by Mr. Mark Grist:

AIRBORNE TEST – FLOOR / WALLS			REQUIRED MIN $D_{nT,w} + C_{tr}$ dB	ACHIEVED $D_{nT,w} + C_{tr}$ dB	RESULT
TEST NO.	FROM	TO			
10092 / 1	1 - Lounge	4 - Lounge	43	44	PASS
10092 / 2	2 - Bedroom	3 - Lounge	43	49	PASS
10092 / 3	2 - Lounge	4b - Lounge	43	53	PASS
10092 / 4	4 - Kitchen	10 - Kitchen	43	52	PASS

IMPACT TEST - FLOOR			REQUIRED MAX $L'_{nT,w}$ dB	ACHIEVED $L'_{nT,w}$ dB	RESULT
TEST NO.	FROM	TO			
10092 / 5	4 - Lounge	1 - Lounge	62	62	PASS
10092 / 6	3 - Lounge	2 - Bedroom	62	38	PASS

Construction Types

FLOOR - Structure unknown

These construction details have been supplied by the client and therefore Sound Advice Acoustics Ltd accepts no responsibility for their accuracy.

Sound Insulation Test Procedure

Sound insulation tests carried out at the above site were conducted in accordance with Sound Advice Acoustics Ltd technical test procedure SA.SI.803. A full copy of this document is available upon request. The procedures stated in Annex B of Building Regulations Approved Document E 2003 'Resistance to the Passage of Sound' have been followed.

Equipment

All the following equipment was calibrated by a UKAS accredited laboratory in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service (UKAS) on the following dates. Calibration schedules are implemented within Sound Advice Acoustics Ltd in accordance with UKAS directive LAB 23.

Description	Make	Type	Serial No.	Calibration Intervals	Uncertainty		Next Due Calibration
Integrated Sound Level Meter	Norsonic	118	28191	2 YEARS	0.0 dB		09.05.2025
Integrated Sound Level Meter (Filters)	Norsonic	118	28191	2 YEARS	2.0 dB		09.05.2025
Integrated Sound Level Meter (RT 60sec)	Norsonic	118	28191	2 YEARS	0.2 dB		09.05.2025
12.5mm Microphone (with windshield)	GRAS	40AF	73337	2 YEARS	0.0 dB		09.05.2025
Microphone Pre – Amplifier	Norsonic	1206	27587	2 YEARS	0.0 dB		09.05.2025
Calibrator	Norsonic	1251	31963	1 YEAR	0.12 dB		05.06.2025
Tapping Machine	ANV	-	TM1001	2 YEARS	Impact Rate Hammer Mass (mounted) Hammer Diameter Radius of Curvature Hammer Impact Velocity Fall Heigh Measurement Hammer Angle of Fall Overall Uncertainty	0.70 m/s 1.61 g 0.04 mm 18.0 mm 0.01 m/s 0.04 mm 0.18 degrees 1.5 dB	16.08.2026

Customer Feedback

Full UKAS calibration data sheets and certificates are available upon request.

Sound Advice Acoustics Ltd welcomes any feedback from our clients. Please email [redacted] with any comments.

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ACOUSTICS LTD

Standardised Level Difference According to ISO 140 Part 4 : 1998
Field Measurement of Airborne Sound Insulation Between Rooms

Please note this data sheet is to be read in conjunction with report SA.SI.106. 10092

Client Details:	BRC Ltd
Site Address:	3 & 4 Queens Square, Bognor Regis

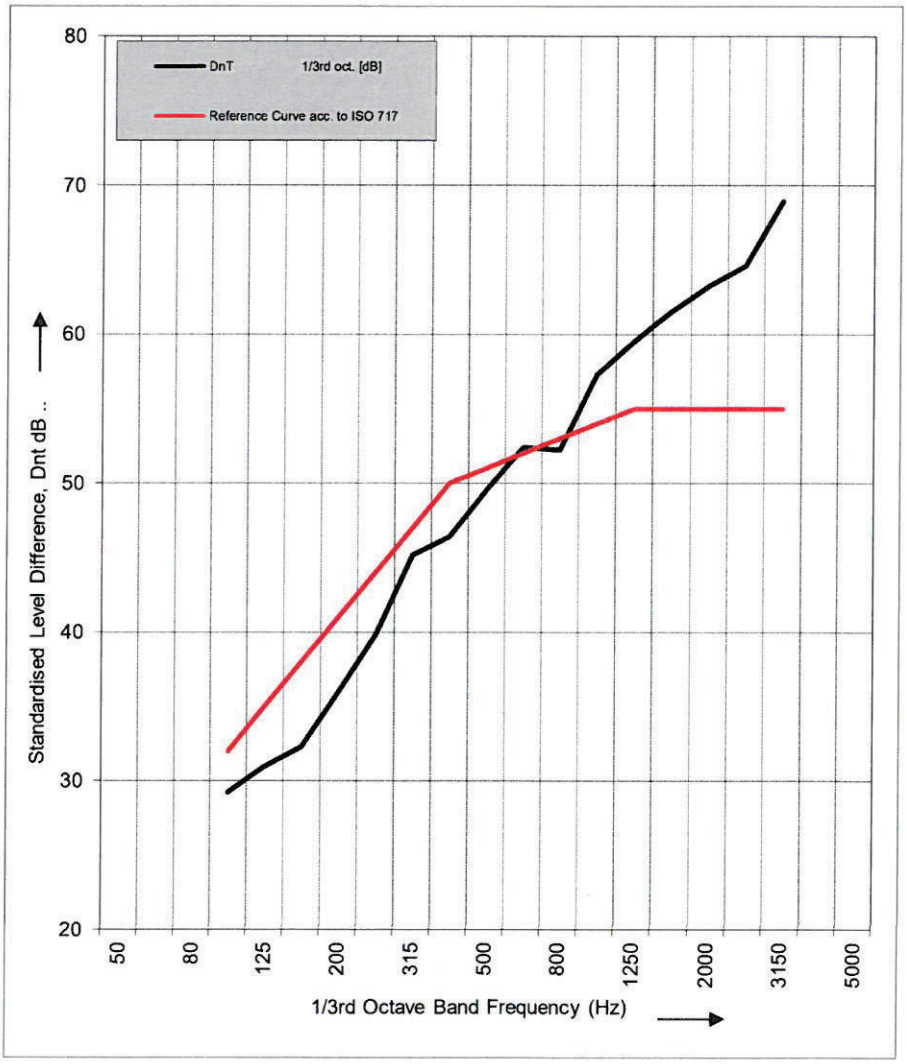
Figure:	1
Test No.:	10092 / 1

Test Location:	From:	1 - Lounge
	To:	4 - Lounge

Test Dated	27.02.2025

Source Room Volume (Approx) 50 m^3
Reciever Room Volume (Approx) 38 m^3

Frequency [Hz]	D_{nT} 1/3rd oct. [dB] B <6
50	
63	
80	
100	29.2
125	30.9
160	32.3
200	36.0
250	39.8
315	45.2
400	46.4
500	49.5
630	52.4
800	52.2 B
1000	57.3 B <6
1250	59.5 B <6
1600	61.5 B <6
2000	63.2 B
2500	64.6 B <6
3150	68.9 B <6
4000	
5000	



Rating According to ISO 717 1997 Part 1. Airborne Sound Insulation

$D_{nT,w\ (C,Ctr)}$ **51 (-2 ; -7) dB**

$D_{nT,w} + C_{tr}$ 44 dB

B = Background Corrected Sample Level
<6 = Limit Of Measurement

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

Authentication Signature

Mr. M Grist
Sound
Technician

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Standardised Level Difference According to ISO 140 Part 4 : 1998
Field Measurement of Airborne Sound Insulation Between Rooms

Please note this data sheet is to be read in conjunction with report SA.SI.106. 10092

Client Details:	BRC Ltd
Site Address:	3 & 4 Queens Square, Bognor Regis

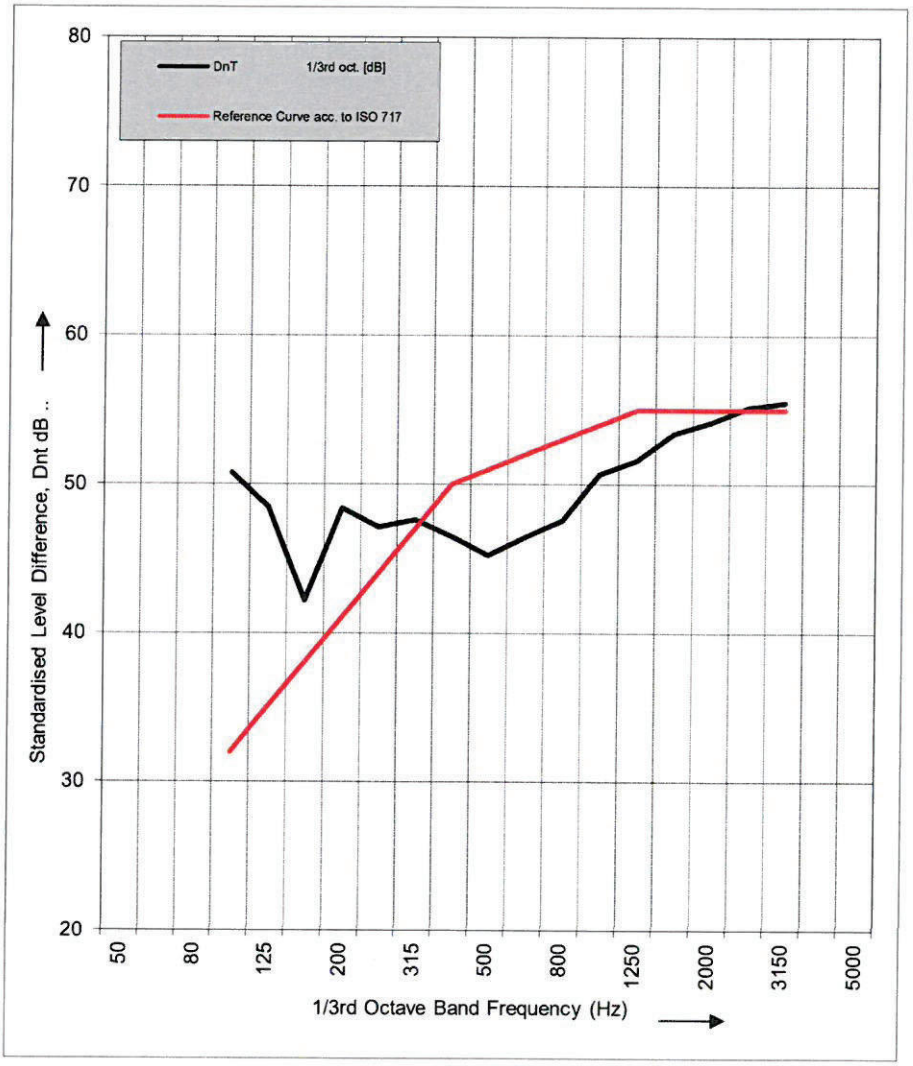
Figure:	2
Test No.:	10092 / 2

Test Location:	From:	2 - Lounge
	To:	3 - Lounge

Test Dated	27.02.2025

Source Room Volume (Approx) 54 m^3
Reciever Room Volume (Approx) 58 m^3

Frequency [Hz]	D_{nT} 1/3rd oct. [dB] B <6
50	
63	
80	
100	50.7 B <6
125	48.4 B <6
160	42.2 B <6
200	48.4 B <6
250	47.1 B <6
315	47.6 B <6
400	46.5 B <6
500	45.2 B <6
630	46.4 B <6
800	47.5 B <6
1000	50.7 B <6
1250	51.6 B <6
1600	53.4 B <6
2000	54.2 B <6
2500	55.1 B <6
3150	55.5 B <6
4000	
5000	



Rating According to ISO 717 1997 Part 1. Airborne Sound Insulation

$D_{nT,w\ (C,Ctr)}$ **51** (-1 ; -2) **dB**

$D_{nT,w} + C_{tr}$ 49 dB

B = Background Corrected Sample Level
<6 = Limit Of Measurement

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

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Standardised Level Difference According to ISO 140 Part 4 : 1998
Field Measurement of Airborne Sound Insulation Between Rooms

Please note this data sheet is to be read in conjunction with report SA.SI.106. 10092

Client Details:	BRC Ltd
Site Address:	3 & 4 Queens Square, Bognor Regis

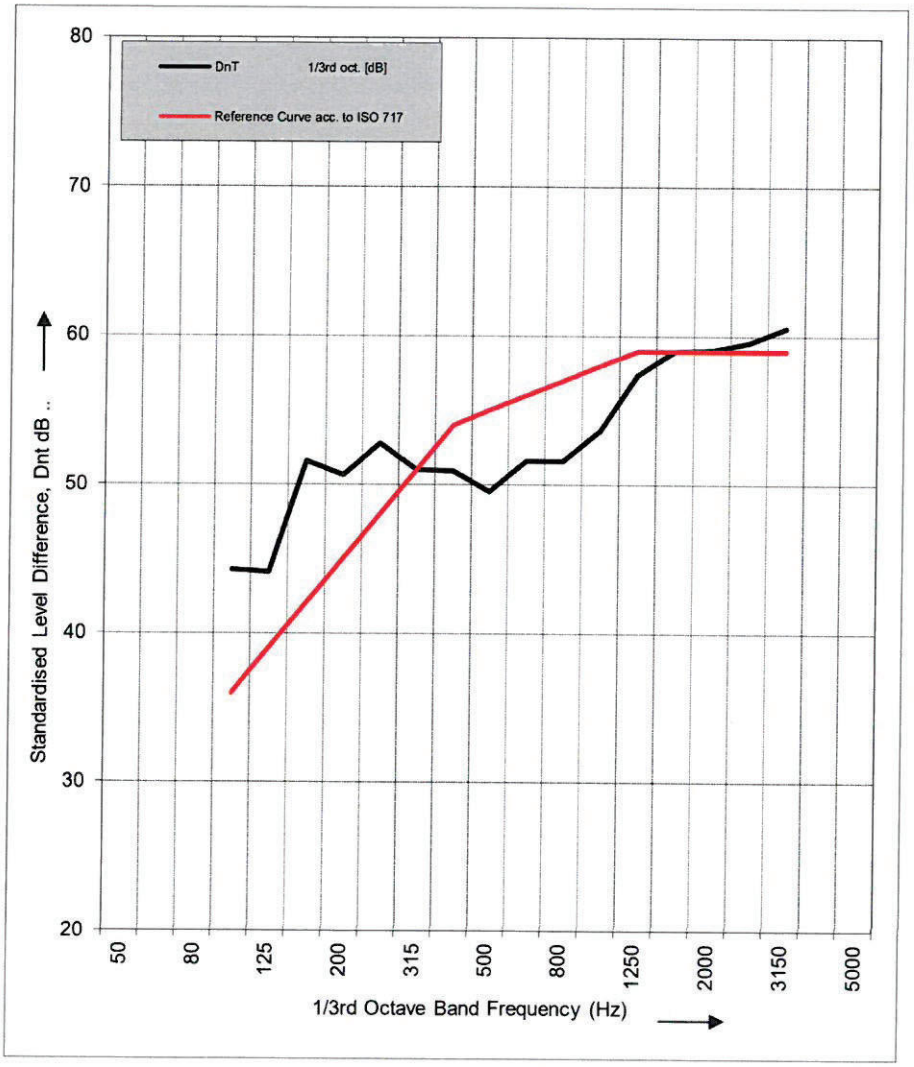
Figure:	3
Test No.:	10092 / 3

Test Location:	From:	2 - Lounge
	To:	4b - Lounge

Test Dated	27.02.2025

Source Room Volume (Approx) 54 m^3
Reciever Room Volume (Approx) 58 m^3

Frequency [Hz]	D_{nT} 1/3rd oct. [dB] B <6
50	
63	
80	
100	44.2
125	44.1
160	51.6
200	50.6 B
250	52.8
315	51.0
400	50.9
500	49.5
630	51.6
800	51.6 B
1000	53.6 B
1250	57.4 B
1600	58.9 B
2000	59.0 B
2500	59.5 B
3150	60.5 B
4000	
5000	



Rating According to ISO 717 1997 Part 1. Airborne Sound Insulation

$D_{nT,w\ (C,Ctr)}$ 55 (0 ; -2) dB

$D_{nT,w} + C_{tr}$ 53 dB

B = Background Corrected Sample Level
<6 = Limit Of Measurement

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

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Standardised Level Difference According to ISO 140 Part 4 : 1998
Field Measurement of Airborne Sound Insulation Between Rooms

Please note this data sheet is to be read in conjunction with report SA.SI.106. 10092

Client Details:	BRC Ltd
Site Address:	3 & 4 Queens Square, Bognor Regis

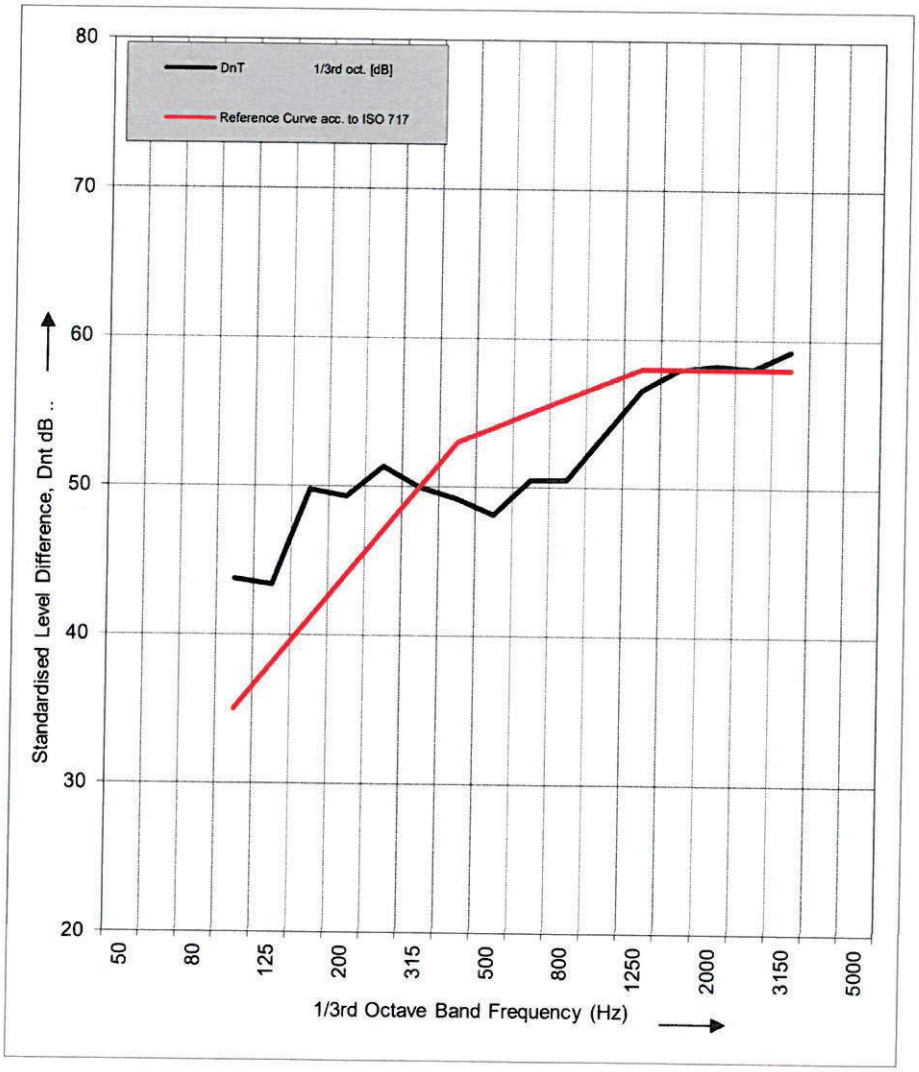
Figure:	4
Test No.:	10092 / 4

Test Location:	From:	4 - Lounge
	To:	1 - Lounge

Test Dated	27.02.2025

Source Room Volume (Approx) 38 m^3
Reciever Room Volume (Approx) 50 m^3

Frequency [Hz]	D_{nT} 1/3rd oct. [dB] B <6
50	
63	
80	
100	43.7
125	43.4
160	49.7
200	49.3 B
250	51.3
315	49.9
400	49.2
500	48.1
630	50.5
800	50.5 B
1000	53.5 B
1250	56.5 B
1600	57.9 B
2000	58.2 B
2500	58.0 B
3150	59.2 B
4000	
5000	



Rating According to ISO 717 1997 Part 1. Airborne Sound Insulation

$D_{nT,w\,(C,Ctr)}$ **54 (-1 ; -2) dB**

$D_{nT,w} + C_{tr}$ 52 dB

B = Background Corrected Sample Level
<6 = Limit Of Measurement

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

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Standardised Impact Sound Pressure Level According to ISO 140 Part 7 : 1998
Field Measurement of Impact Sound Insulation of Floors

Please note this data sheet is to be read in conjunction with report SA.SI.106. 10092

Client Details:	BRC Ltd
Site Address:	3 & 4 Queens Square, Bognor Regis

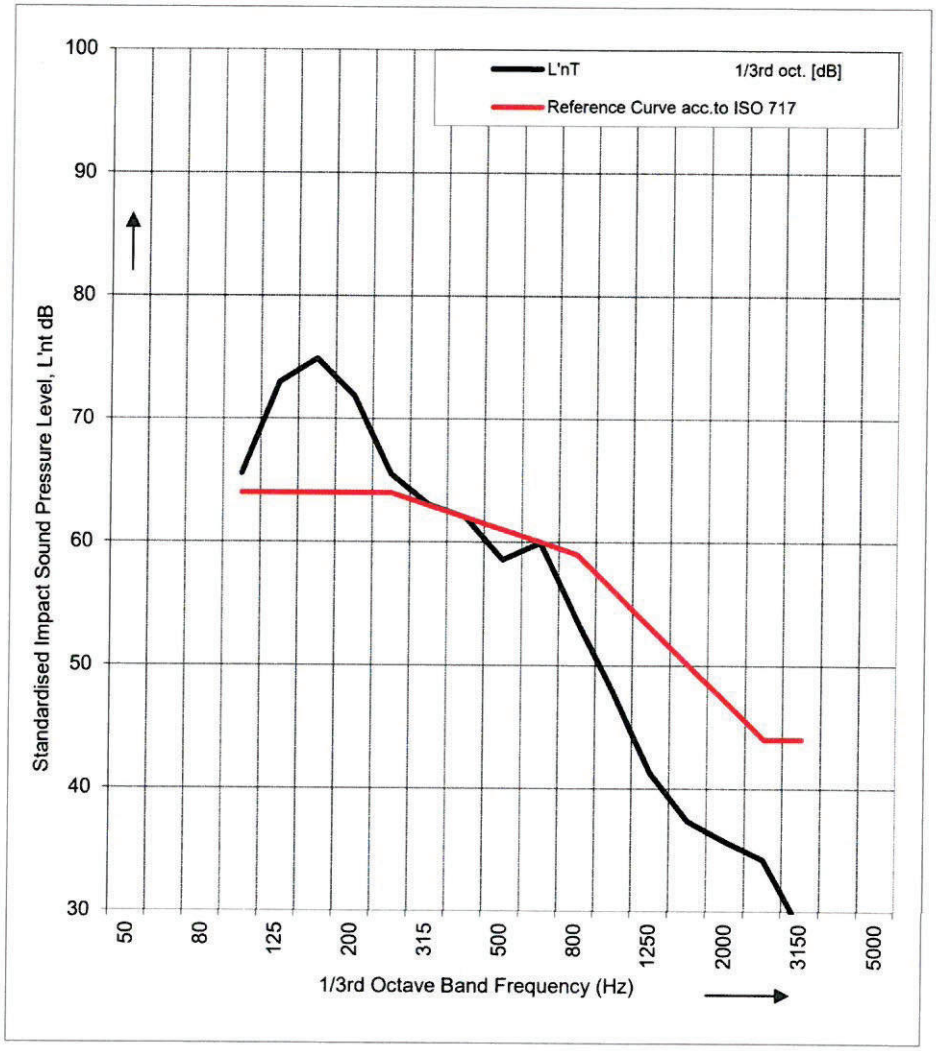
Figure:	5
Test No.:	10092 / 5

Test Location:	From:	4 - Lounge
	To:	1 - Lounge

Test Dated	27.02.2025

Source Room Volume (Approx) 38 m^3
Reciever Room Volume (Approx) 50 m^3

Frequency [Hz]	L'_{nT} 1/3rd oct. [dB] B <6
50	
63	
80	
100	65.6
125	73.0
160	74.9
200	71.9
250	65.5
315	63.1
400	62.0
500	58.6
630	59.9
800	53.7
1000	47.8
1250	41.3
1600	37.3
2000	35.7
2500	34.2 B
3150	28.8 B
4000	
5000	



Rating According to ISO 717 1997 Part 2. Impact Sound Insulation

$L'_{nT,w}$ (C_I) 62 (2) dB

$L'_{nT,w}$ 62 dB

B = Background Corrected Sample Level

<6 = Limit Of Measurement

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

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Standardised Impact Sound Pressure Level According to ISO 140 Part 7 : 1998
Field Measurement of Impact Sound Insulation of Floors

Please note this data sheet is to be read in conjunction with report SA.SI.106. 10092

Client Details:	BRC Ltd
Site Address:	3 & 4 Queens Square, Bognor Regis

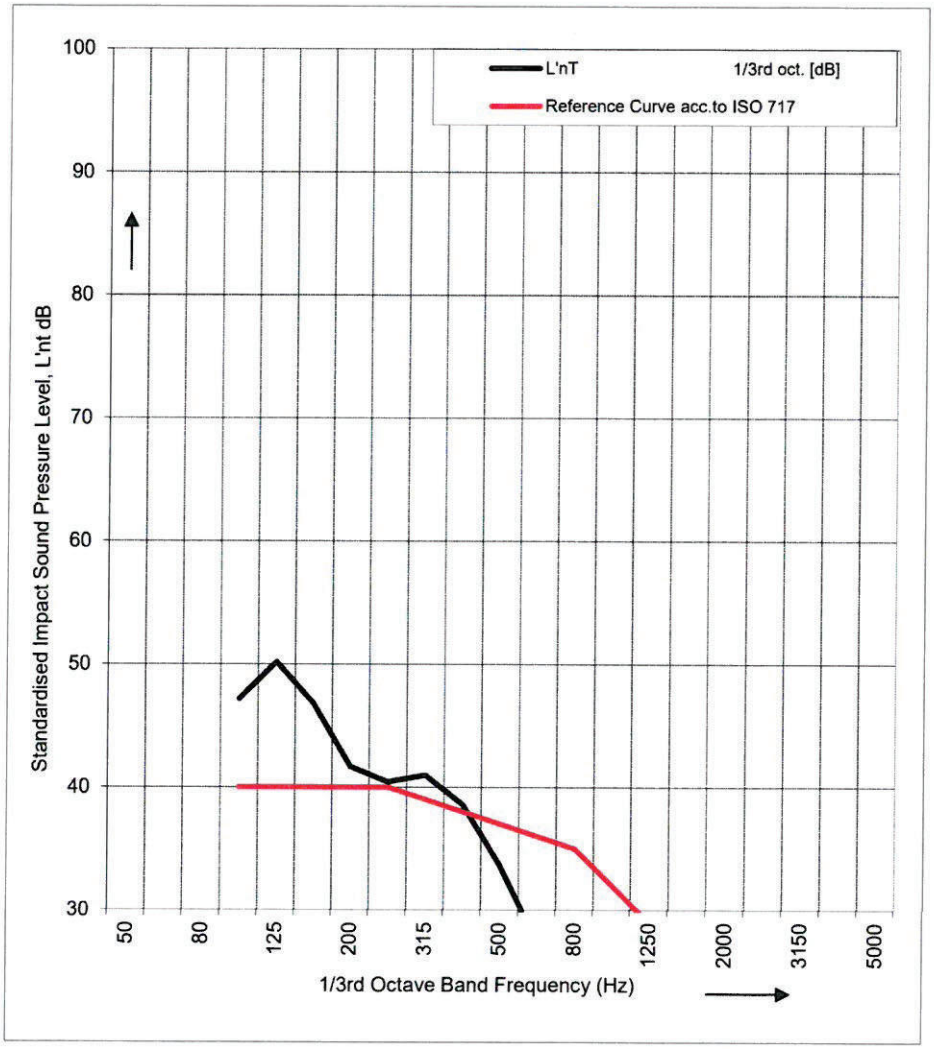
Figure:	6
Test No.:	10092 / 6

Test Location:	From:	3 - Lounge
	To:	2 - Bedroom

Test Dated	27.02.2025

Source Room Volume (Approx) 40 m^3
Reciever Room Volume (Approx) 42 m^3

Frequency [Hz]	L'_{nT} 1/3rd oct. [dB] B <6
50	
63	
80	
100	47.2
125	50.2
160	46.8
200	41.7
250	40.4
315	41.0
400	38.6
500	33.7
630	27.4
800	23.2
1000	20.8
1250	15.5
1600	14.9
2000	12.1
2500	10.6 B
3150	8.7 B
4000	
5000	



Rating According to ISO 717 1997 Part 2. Impact Sound Insulation

$L'_{nT,w}$ (C_I) 38 (1) dB

$L'_{nT,w}$ 38 dB

B = Background Corrected Sample Level

<6 = Limit Of Measurement

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

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