

Description of Test Site:

Revision No. 2

An existing building converted into apartments.

Floor Construction:

Chipboard,
dB Matting 12,
Existing concrete slab,
Independent ceiling,
100mm slab insulation,
2no.12.5mm plasterboard.

Wall Construction:

Skim finish,
2no.15mm Acoustic boards,
Stud partition with Insulation,
9' Solid wall,
Stud partition with Insulation,
2no.15mm Acoustic boards,
Skim finish.

Test Conditions:

Rooms were all complete and ready to test. The impact tests were performed over chipboard.

Building Regulation Performance Requirements:

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"In the secretary of state's view the normal way of satisfying Requirement E1 will be to build separating walls, separating floors, and stairs that have a separating function, together with the associated flanking construction, in such a way that they achieve the sound insulation values for dwelling houses and flats, and the values for rooms for residential purposes"

Purpose built dwelling-houses and flats

Separating walls:	airborne	DnTw + Ctr	= 45dB or higher
Separating floors:	airborne	DnTw + Ctr	= 45dB or higher
Separating floors:	impact	Lntw	= 62dB or lower

Dwelling-houses and flats formed by material change of use.

Separating walls:	airborne	DnTw + Ctr	= 43dB or higher
Separating floors:	airborne	DnTw + Ctr	= 43dB or higher
Separating floors:	impact	Lntw	= 64dB or lower

Purpose built rooms for residential purposes.

Separating walls:	airborne	DnTw + Ctr	= 43dB or higher
Separating floors:	airborne	DnTw + Ctr	= 45dB or higher
Separating floors:	impact	Lntw	= 62dB or lower

Rooms for residential purposes formed by material change of use.

Separating walls:	airborne	DnTw + Ctr	= 43dB or higher
Separating floors:	airborne	DnTw + Ctr	= 43dB or higher
Separating floors:	impact	Lntw	= 64dB or lower

Results:

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Table 1. Vertical (airborne) across separating floors.

Test	Source Room	Volume	Receiver Room	Volume	DnTw+Ctr	Comment
6030S-1	Apartment 6, Kitchen/Living Room	97.3m ³	Apartment 3, Kitchen/Living Room	69.2m ³	57dB	PASS
6030S-3	Apartment 5, Kitchen/Living Room	69.9m ³	Apartment 1, Kitchen/Living Room	67.4m ³	61dB	PASS
To achieve a 'pass' the above DnTw + Ctr values should be 43dB or higher.						

Table 2. Vertical (impact) across separating floors.

Test	Source Room	Volume	Receiver Room	Volume	LnTw	Comment
60302-2	Apartment 6, Kitchen/Living Room	97.3m ³	Apartment 3, Kitchen/Living Room	69.2m ³	41dB	PASS
6030S-4	Apartment 5, Kitchen/Living Room	69.9m ³	Apartment 1, Kitchen/Living Room	67.4m ³	39dB	PASS
To achieve a 'pass' the above LnTw should be 64dB or lower.						

Table 3. Horizontal (airborne) across separating walls.

Test	Source Room	Volume	Receiver Room	Volume	DnTw+Ctr	Comment
6030S-5	Apartment 6, Kitchen/Living Room	97.3m ³	Apartment 7, Kitchen/Living Room	69.9m ³	58dB	PASS
6030S-6	Apartment 4, Kitchen/Living Room	69.8m ³	Apartment 3, Kitchen/Living Room	69.2m ³	59dB	PASS
To achieve a 'pass' the above DnTw + Ctr values should be 43dB or higher.						

ISO 140-4: 1998 Standardised Level Difference.

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Field measurements of airborne sound insulation between rooms.

Client: [REDACTED]

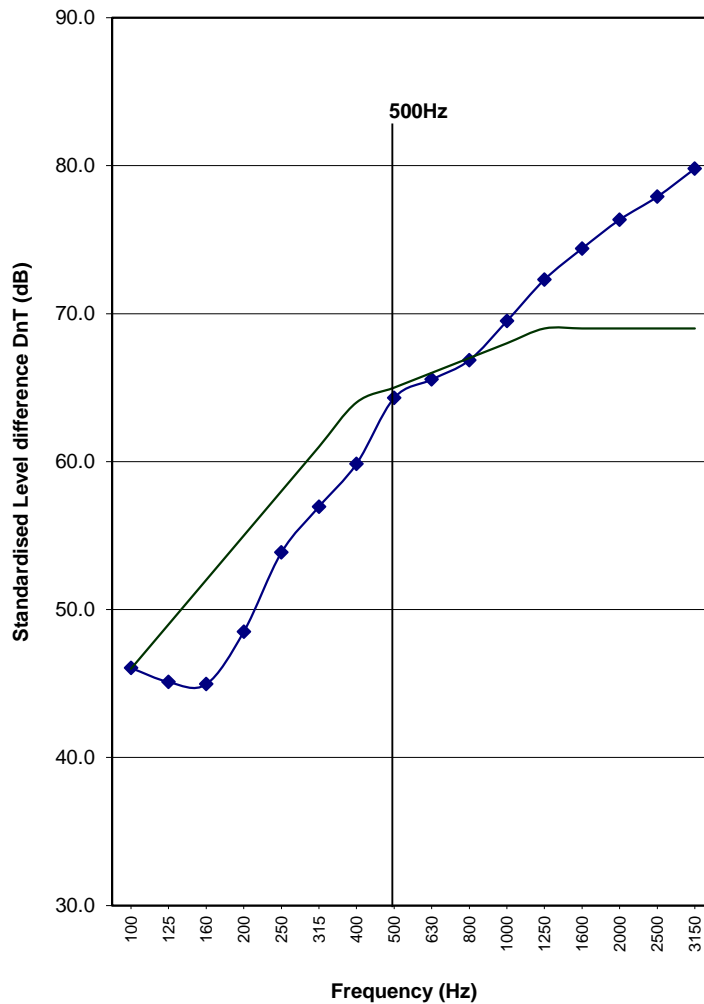
Date of test: 19.11.2013

Description and identification of the building construction and test arrangement, direction of measurement:

Source Room: Apartment 6, Kitchen/Living Room Source room volume: 97.3m³
 Receiver room: Apartment 3, Kitchen/Living Room Receiver room volume: 69.2m³
 Direction of test: Vertical
 Floor Construction: Chipboard, dB Matting 12, Existing concrete slab, Independent ceiling, 100mm slab insulation, 2no.12.5mm plasterboard.

Frequency range according to the curve of reference values (ISO 717-1)

Frequency (Hz)	DnT (1/3 oct) dB
100	46.1
125	45.1
160	45.0
200	48.5
250	53.9
315	57.0
400	59.9
500	64.3
630	65.6
800	66.9
1000	69.5
1250	72.3
1600	74.4
2000	76.4
2500	77.9
3150	79.8



Rating according to ISO 717-1

DnTw (Ctr) = 65 (-8) DnTw + Ctr = 57 dB

Evaluation based on field measurement results obtained by an engineering method

Test report: 6030S-1 Name of test institute: Soundtesting.co.uk Ltd
 Date: 19.11.2013 Signature: [Signature] Engineer: Lee Richardson

ISO 140-7: 1998 Standardised Impact Sound Pressure Level.

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Field measurements of impact isolation of floors.

Client: [REDACTED]

Date of test: 19.11.2013

Description and identification of the building construction and test arrangement, direction of measurement:

Source Room: Apartment 6, Kitchen/Living Room Source room volume: 97.3m³

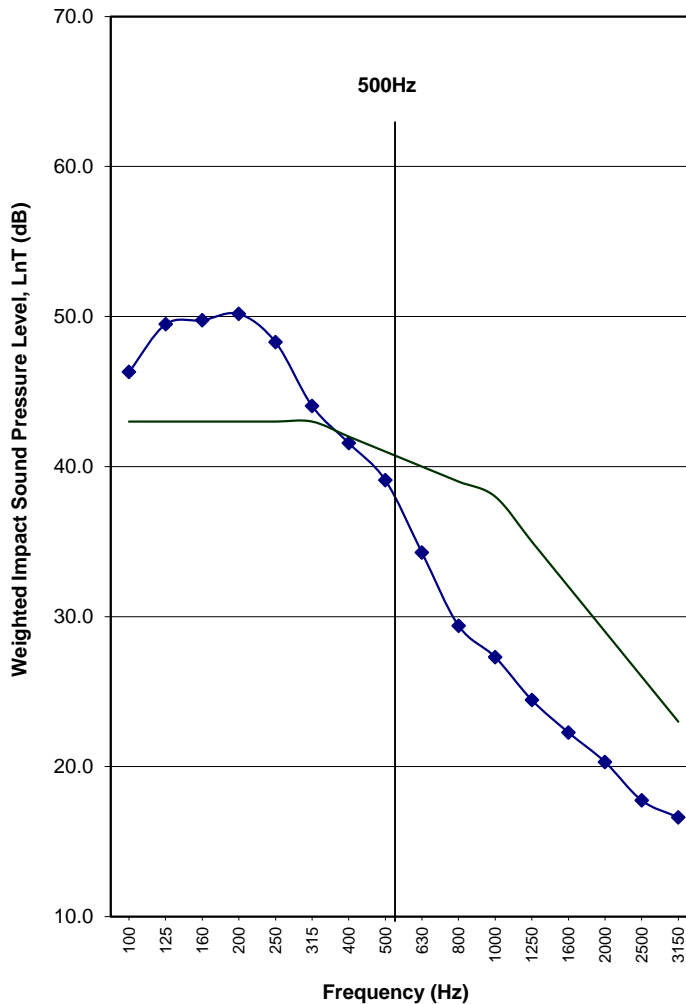
Receiver room: Apartment 3, Kitchen/Living Room Receiver room volume: 69.2m³

Direction of test: Vertical

Floor Construction Chipboard, dB Matting 12, Existing concrete slab, Independent ceiling, 100mm slab insulation, 2no.12.5mm plasterboard.

Frequency range according to the curve of reference values (ISO 717-2)

Frequency (Hz)	LnT (1/3 oct) dB
100	46.3
125	49.5
160	49.7
200	50.2
250	48.3
315	44.0
400	41.6
500	39.1
630	34.3
800	29.4
1000	27.3
1250	24.4
1600	22.3
2000	20.3
2500	17.8
3150	16.6



Rating according to ISO 717-2

LnTw = 41 dB

Evaluation based on field measurement results obtained by an engineering method

Test report: 6030S-2

Name of test institute: Soundtesting.co.uk Ltd

Date: 19.11.2013

Signature: [Signature]

Engineer: Lee Richardson

ISO 140-4: 1998 Standardised Level Difference.

Revision No. 2

Field measurements of airborne sound insulation between rooms.

Client: XXXXXXXXXX

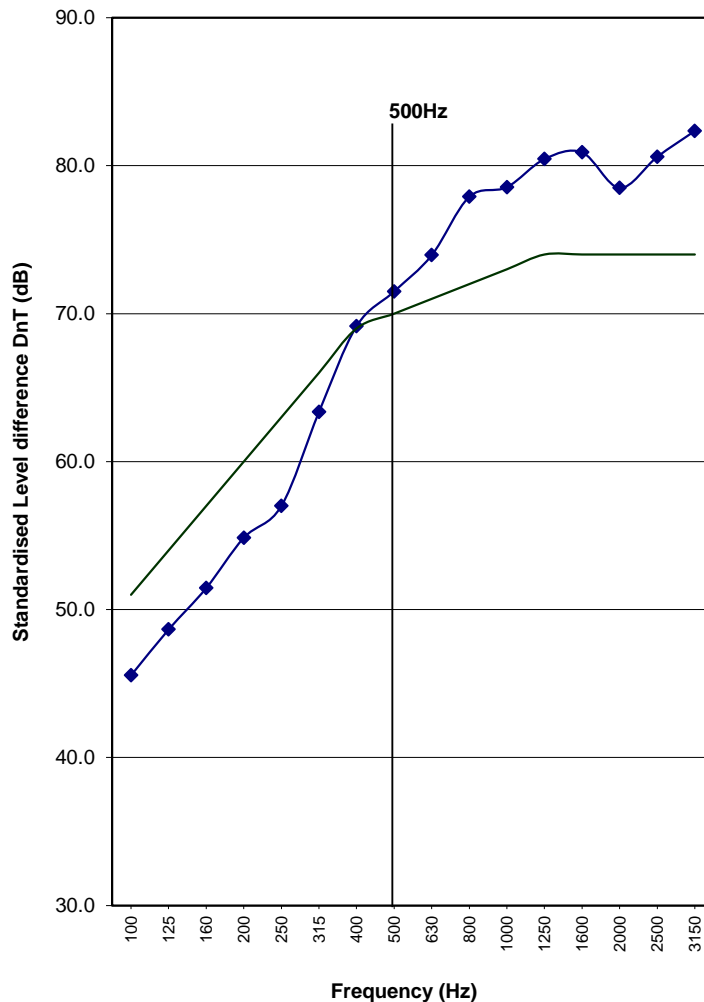
Date of test: 19.11.2013

Description and identification of the building construction and test arrangement, direction of measurement:

Source Room: Apartment 5, Kitchen/Living Room Source room volume: 69.9m³
 Receiver room: Apartment 1, Kitchen/Living Room Receiver room volume: 67.4m³
 Direction of test: Vertical
 Floor Construction: Chipboard, dB Matting 12, Existing concrete slab, Independent ceiling, 100mm slab insulation, 2no.12.5mm plasterboard.

Frequency range according to the curve of reference values (ISO 717-1)

Frequency (Hz)	DnT (1/3 oct) dB
100	45.6
125	48.7
160	51.5
200	54.9
250	57.0
315	63.4
400	69.2
500	71.5
630	74.0
800	77.9
1000	78.6
1250	80.5
1600	80.9
2000	78.5
2500	80.6
3150	82.4



Rating according to ISO 717-1

DnTw (Ctr) = 70 (-9) DnTw + Ctr = 61 dB

Evaluation based on field measurement results obtained by an engineering method

Test report: 6030S-3

Name of test institute: Soundtesting.co.uk Ltd

Date: 19.11.2013

Signature:  Engineer: Lee Richardson

ISO 140-7: 1998 Standardised Impact Sound Pressure Level.

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Field measurements of impact isolation of floors.

Client: [REDACTED]

Date of test: 19.11.2013

Description and identification of the building construction and test arrangement, direction of measurement:

Source Room: Apartment 5, Kitchen/Living Room Source room volume: 69.9m³

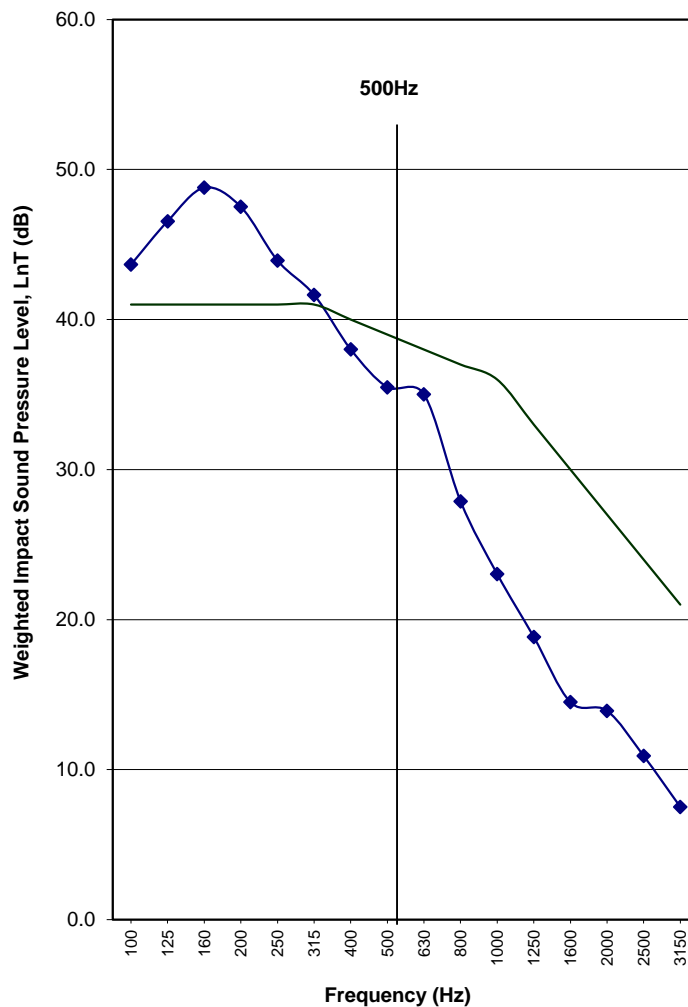
Receiver room: Apartment 1, Kitchen/Living Room Receiver room volume: 67.4m³

Direction of test: Vertical

Floor Construction: Chipboard, dB Matting 12, Existing concrete slab, Independent ceiling, 100mm slab insulation, 2no.12.5mm plasterboard.

Frequency range according to the curve of reference values (ISO 717-2)

Frequency (Hz)	LnT (1/3 oct) dB
100	43.7
125	46.6
160	48.8
200	47.5
250	43.9
315	41.6
400	38.0
500	35.5
630	35.0
800	27.9
1000	23.0
1250	18.8
1600	14.5
2000	13.9
2500	10.9
3150	7.5



Rating according to ISO 717-2

LnTw = 39 dB

Evaluation based on field measurement results obtained by an engineering method

Test report: 6030S-4

Name of test institute: Soundtesting.co.uk Ltd

Date: 19.11.2013

Signature: [Signature] Engineer: Lee Richardson

ISO 140-4: 1998 Standardised Level Difference.

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Field measurements of airborne sound insulation between rooms.

Client: [REDACTED]

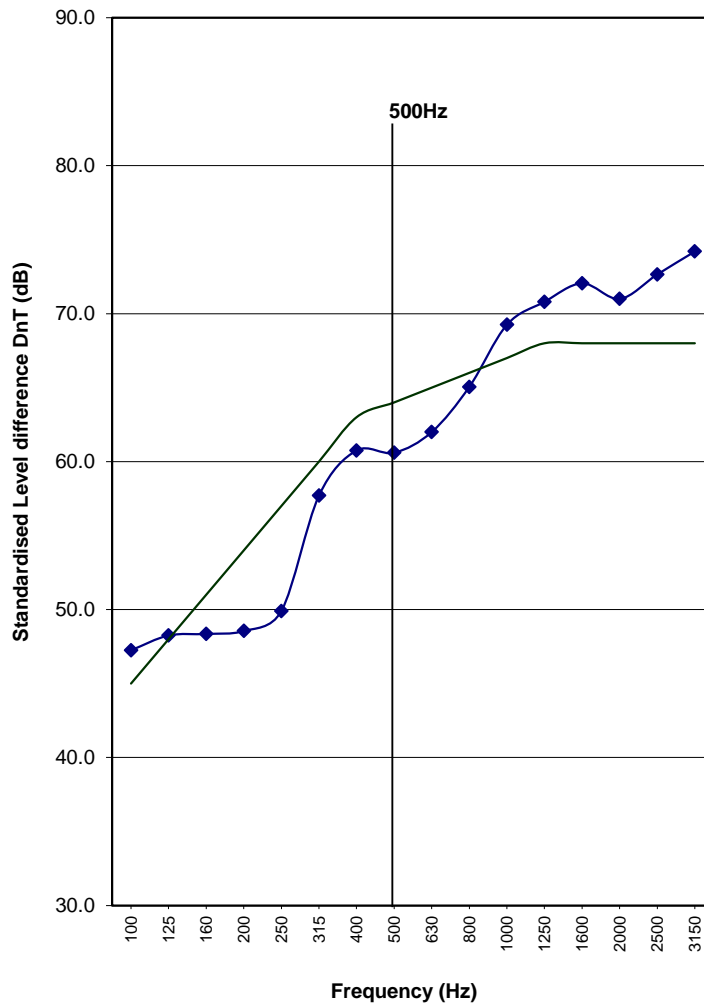
Date of test: 19.11.2013

Description and identification of the building construction and test arrangement, direction of measurement:

Source Room: Apartment 6, Kitchen/Living Room Source room volume: 97.3m³
 Receiver room: Apartment 7, Kitchen/Living Room Receiver room volume: 69.9m³
 Direction of test: Horizontal
 Wall Construction: Skim finish, 2no.15mm Acoustic boards, Stud partition with Insulation, 9' Solid wall, Stud partition with Insulation, 2no.15mm Acoustic boards, Skim finish.

Frequency range according to the curve of reference values (ISO 717-1)

Frequency (Hz)	DnT (1/3 oct) dB
100	47.3
125	48.3
160	48.4
200	48.6
250	49.9
315	57.7
400	60.8
500	60.6
630	62.0
800	65.1
1000	69.3
1250	70.8
1600	72.1
2000	71.0
2500	72.7
3150	74.2



Rating according to ISO 717-1

DnTw (Ctr) = 64 (-6) DnTw + Ctr = 58 dB

Evaluation based on field measurement results obtained by an engineering method

Test report: 6030S-5 Name of test institute: Soundtesting.co.uk Ltd
 Date: 19.11.2013 Signature: [Signature] Engineer: Lee Richardson

ISO 140-4: 1998 Standardised Level Difference.

Revision No. 2

Field measurements of airborne sound insulation between rooms.

Client: [REDACTED]

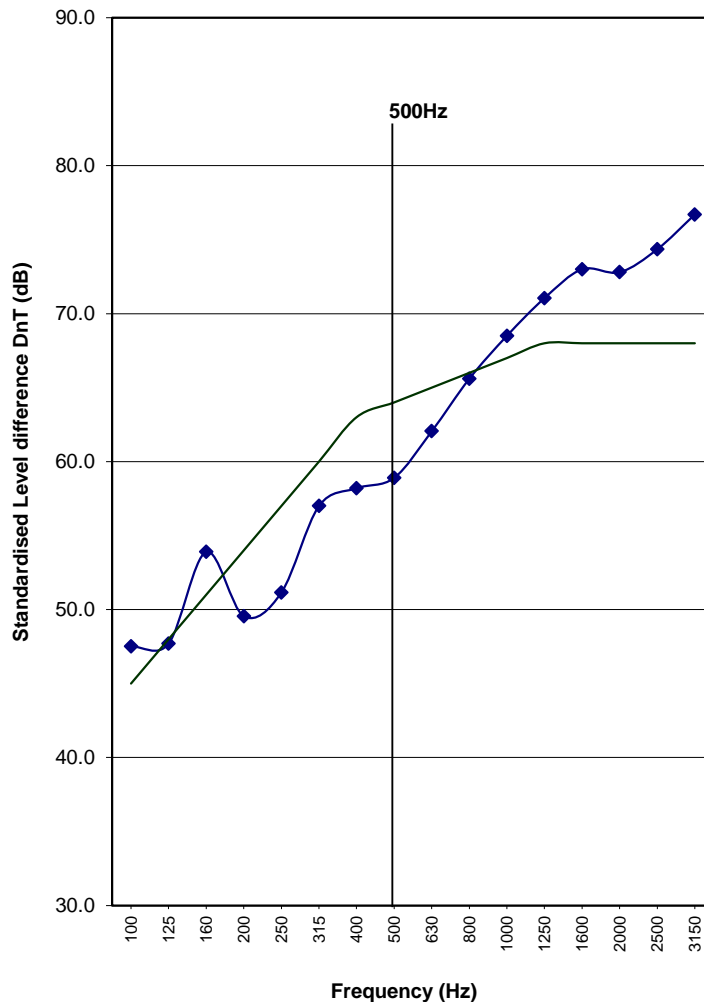
Date of test: 19.11.2013

Description and identification of the building construction and test arrangement, direction of measurement:

Source Room: Apartment 4, Kitchen/Living Room Source room volume: 69.8m³
 Receiver room: Apartment 3, Kitchen/Living Room Receiver room volume: 69.2m³
 Direction of test: Horizontal
 Wall Construction: Skim finish, 2no.15mm Acoustic boards, Stud partition with Insulation, 9' Solid wall, Stud partition with Insulation, 2no.15mm Acoustic boards, Skim finish.

Frequency range according to the curve of reference values (ISO 717-1)

Frequency (Hz)	DnT (1/3 oct) dB
100	47.5
125	47.7
160	53.9
200	49.6
250	51.2
315	57.0
400	58.2
500	58.9
630	62.1
800	65.6
1000	68.5
1250	71.1
1600	73.0
2000	72.8
2500	74.4
3150	76.7



Rating according to ISO 717-1

DnTw (Ctr) = 64 (-5) DnTw + Ctr = 59 dB

Evaluation based on field measurement results obtained by an engineering method

Test report: 6030S-6 Name of test institute: Soundtesting.co.uk Ltd
 Date: 19.11.2013 Signature: [Signature] Engineer: Lee Richardson