

Impact sound insulation according ISO 10140-1

Annex TS - ΔLw

Laboratory measurements of the reduction of transmitted impact noise by floor coverings on a heavyweight reference floor

Annex TS – Impact sound insulation

Date of test: 07.06.2019

Product name: see main report
 Construction: Prefab tapis
 (from top to bottom) Jumpax Nature 14,5 mm
 CocoFloor 4 mm

Remarks: The floor has been glued to the underlay.

Receiving room:

Volume: 53,6 m³

Source room:

Volumen: 52,1 m³

Temperatur: 58,0 m³

Rel. Luftfeuchtigkeit: 19,1 %

Boundary conditions:

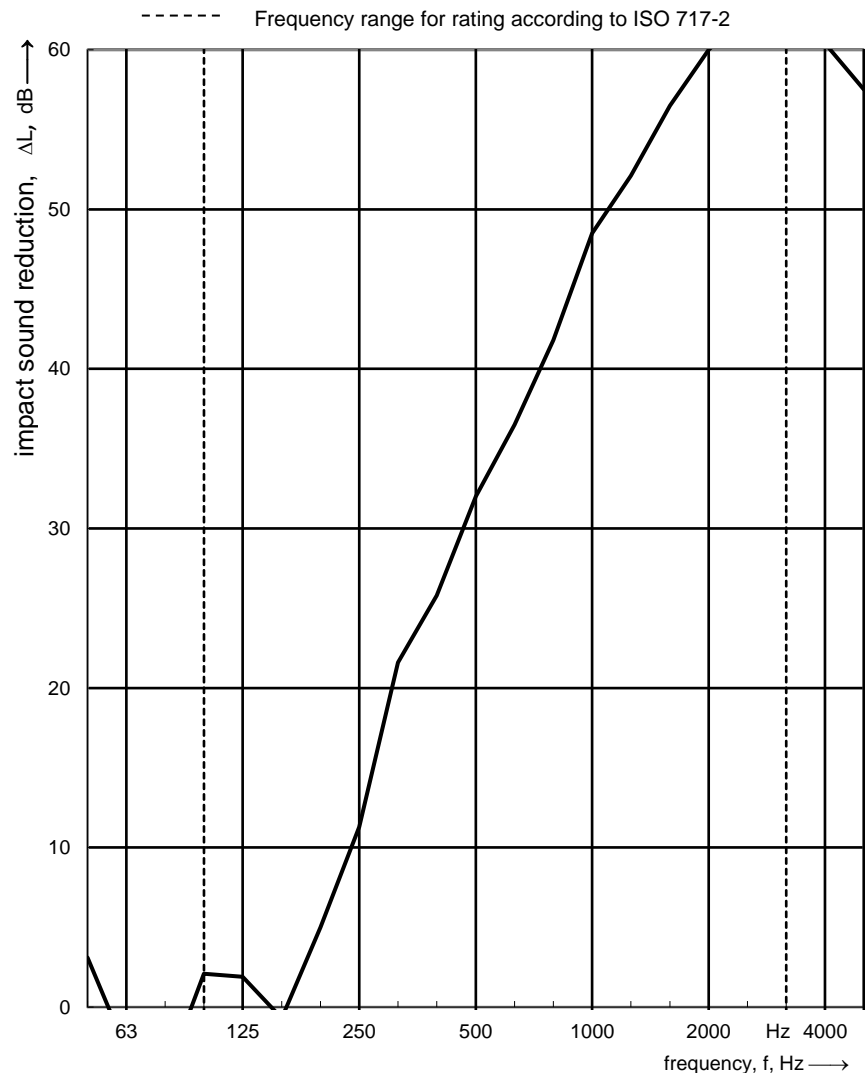
Hammerwerkspositionen: 4

Mikrofonpositionen: 4

Category / sample area: II / ~ 10 m²

Type of reference floor: Heavyweight

Frequency f [Hz]	$L_{n,0}$ 1/3 oct. [dB]	ΔL 1/3 oct. [dB]
50	54,9	3,1
63	60,6	-2,7
80	59,4	-4,4
100	61,8	2,1
125	67,1	1,9
160	62,7	-0,7
200	64,7	5,0
250	68,4	11,3
315	68,8	21,6
400	67,4	25,8
500	68,7	32,0
630	68,9	36,5
800	69,5	41,8
1000	70,8	48,5
1250	71,1	52,1
1600	71,9	56,5
2000	71,9	60,0
2500	71,0	62,3
3150	71,3	62,4
4000	69,8	60,4
5000	66,0	57,5



Evaluation according to ISO 717-2

$\Delta L_w = 22$ dB

$C_{i,\Delta} = -12$ dB

$C_{i,r} = 1$ dB

$\Delta L_{in} = 10$ dB

The results are based on measurements, which were performed under laboratory conditions with artificial excitation (standard procedure).

Test report no.: A-2019-118



Impact Insulation Class according ASTM E492

Annex TS - IIC

Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine

Date of test: 07.06.2019

Product name: see main report
 Construction: Prefab tapis
 (from top to bottom) Jumpax Nature 14,5 mm
 CocoFloor 4 mm

Remarks: The floor has been glued to the underlay.

Receiving room:

Volume: 53,6 m³

Source room:

Volume: 52,1 m³

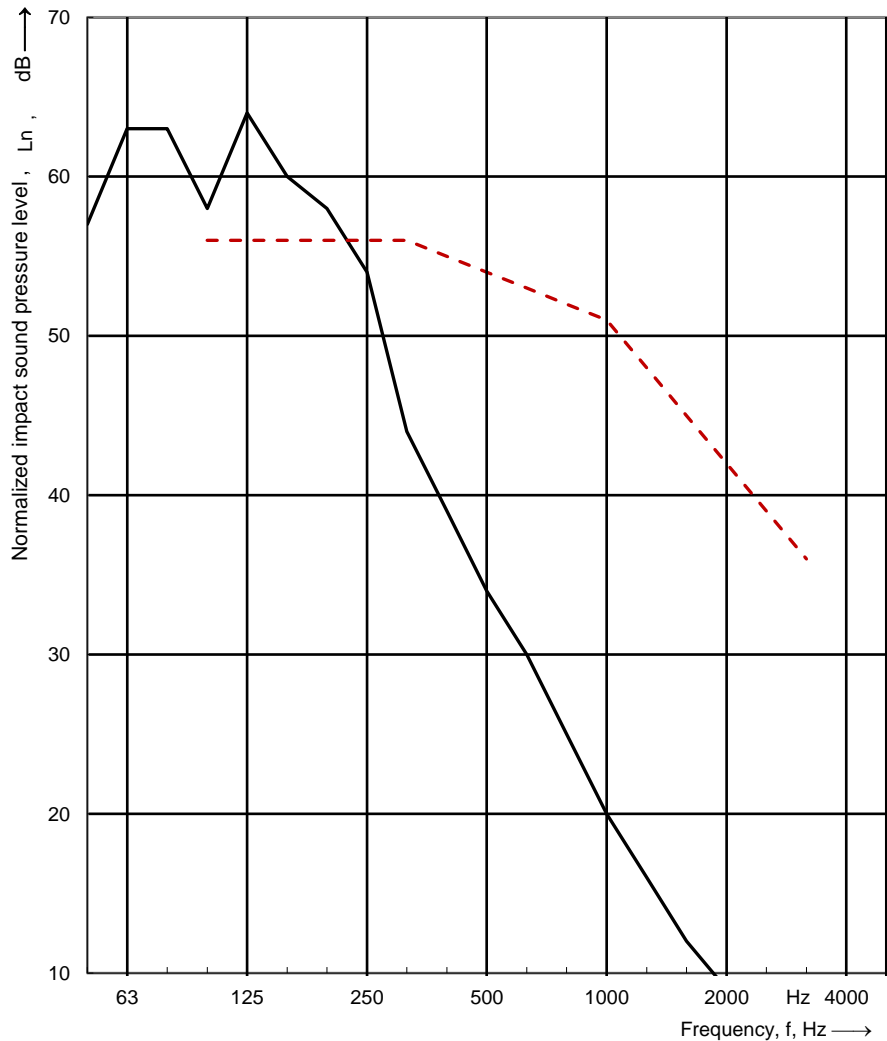
Air temperature: 0,0 °C

Relative air humidity: 63,0 %

Floor Type: 140 mm concrete slab with 330 kg/m²

— Ln
 - - - IIC Contour

Frequency f [Hz]	Ln 1/3 octave [dB]
50	57
63	63
80	63
100	58
125	64
160	60
200	58
250	54
315	44
400	39
500	34
630	30
800	25
1000	20
1250	16
1600	12
2000	9
2500	5
3150	5
4000	6
5000	5



Impact insulation class IIC = 56 dB
 Measurement according DIN EN ISO 10140
 Evaluation according to ASTM E989

Test report no.: A-2019-118



Delta Impact Insulation Class according ASTM E 2179

Annex TS - ΔIIC

Laboratory Measurement of the Effectiveness of Floor Coverings in Reducing Impact Sound Transmission Through Concrete Floors

Date of test: 07.06.2019

Product name: see main report
 Construction: Prefab tapis
 (from top to bottom) Jumpax Nature 14,5 mm
 CocoFloor 4 mm

Remarks: The floor has been glued to the underlay.

Receiving room:

Volume: 53,6 m³

Source room:

Volume: 52,1 m³

Air temperature: 19,1 °C

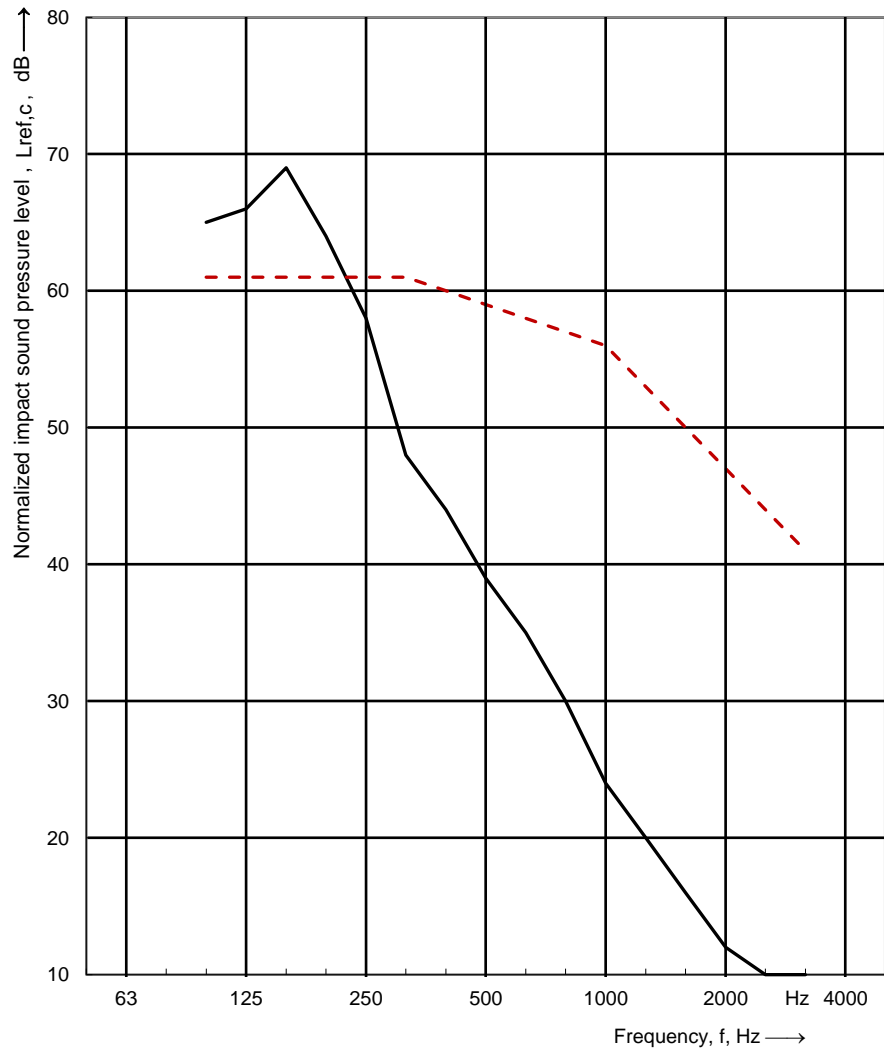
Relative air humidity: 58,0 %

Floor Type: 140 mm concrete slab with 330 kg/m²

— Lref,c
 - - - IIC Contour

$$L_{ref,c} = L_{ref} - L_d$$

Frequency f [Hz]	Lref,c 1/3 octave [dB]
50	-
63	-
80	-
100	65
125	66
160	69
200	64
250	58
315	48
400	44
500	39
630	35
800	30
1000	24
1250	20
1600	16
2000	12
2500	10
3150	10
4000	-
5000	-



Increase in Impact Insulation Class ΔIIC = 23 dB
 Measurement according DIN EN ISO 10140
 Evaluation according ASTM E 2179 / ASTM E 989

Test report no.: A-2019-118

