

Impact sound insulation according ISO 10140-1

Annex TS - ΔL_w

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: Duoplank
 (from top to bottom) Jumpax Nature 14,5 mm
 CocoFloor 4 mm

Remarks: none

Receiving room:

Volume: 53,6 m³

Source room:

Volumen: 52,1 m³

Temperatur: 58,0 m³

Rel. Luftfeuchtigkeit: 19,1 %

Boundary conditions:

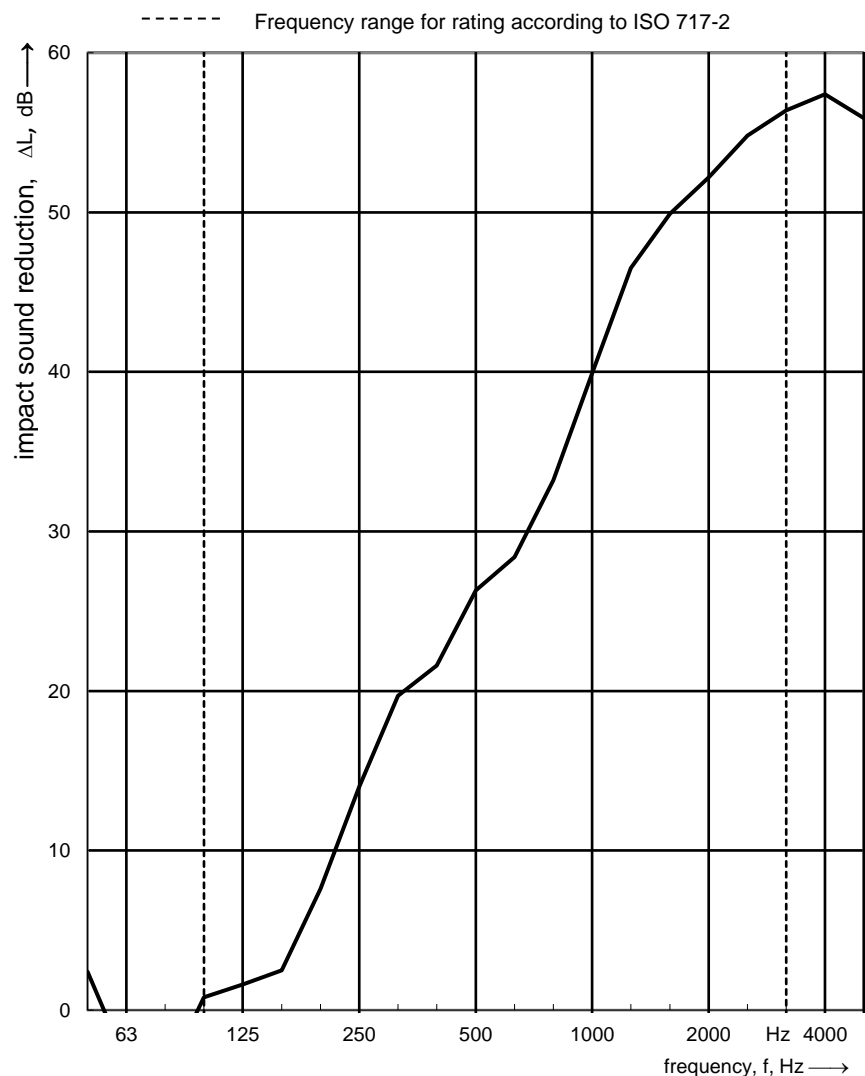
Hammerwerkspositionen: 4

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	2,4
63	60,6	-3,3
80	59,4	-4,3
100	61,8	0,8
125	67,1	1,6
160	62,7	2,5
200	64,7	7,6
250	68,4	14,0
315	68,8	19,7
400	67,4	21,6
500	68,7	26,3
630	68,9	28,4
800	69,5	33,2
1000	70,8	39,9
1250	71,1	46,5
1600	71,9	49,9
2000	71,9	52,2
2500	71,0	54,8
3150	71,3	56,4
4000	69,8	57,4
5000	66,0	55,9



Evaluation according to ISO 717-2

ΔL_w = 23 dB

C_{i,Δ} = -12 dB

C_{i,r} = 1 dB

ΔL_{in} = 11 dB

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

Test report no.: A-2019-117



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: Duoplank
 (from top to bottom) Jumpax Nature 14,5 mm
 CocoFloor 4 mm

Remarks: none

Receiving room:

Volume: 53,6 m³

Source room:

Volume: 52,1 m³

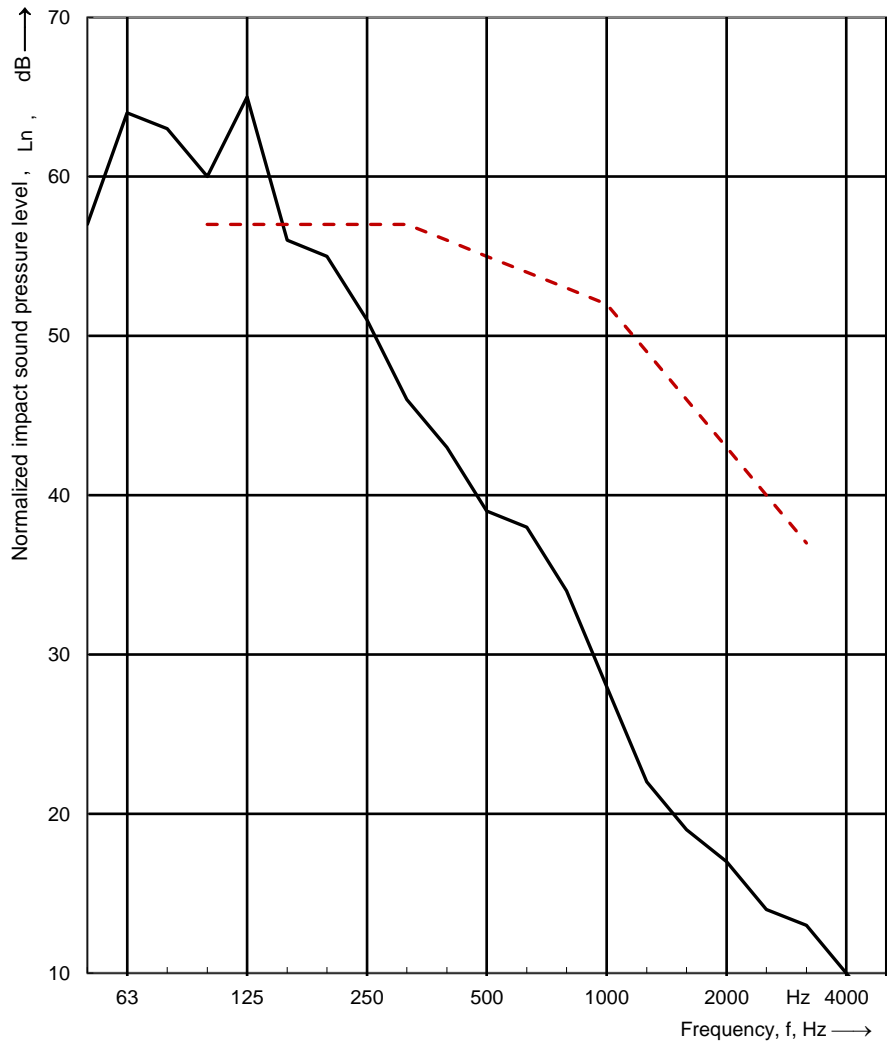
Air temperature: 0,0 °C

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	64
80	63
100	60
125	65
160	56
200	55
250	51
315	46
400	43
500	39
630	38
800	34
1000	28
1250	22
1600	19
2000	17
2500	14
3150	13
4000	10
5000	7



Impact insulation class IIC = 55 dB
 Measurement according DIN EN ISO 10140
 Evaluation according to ASTM E989

Test report no.: A-2019-117



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: Duoplank
 (from top to bottom) Jumpax Nature 14,5 mm
 CocoFloor 4 mm

Remarks: none

Receiving room:

Volume: 53,6 m³

Source room:

Volume: 52,1 m³

Air temperature: 19,1 °C

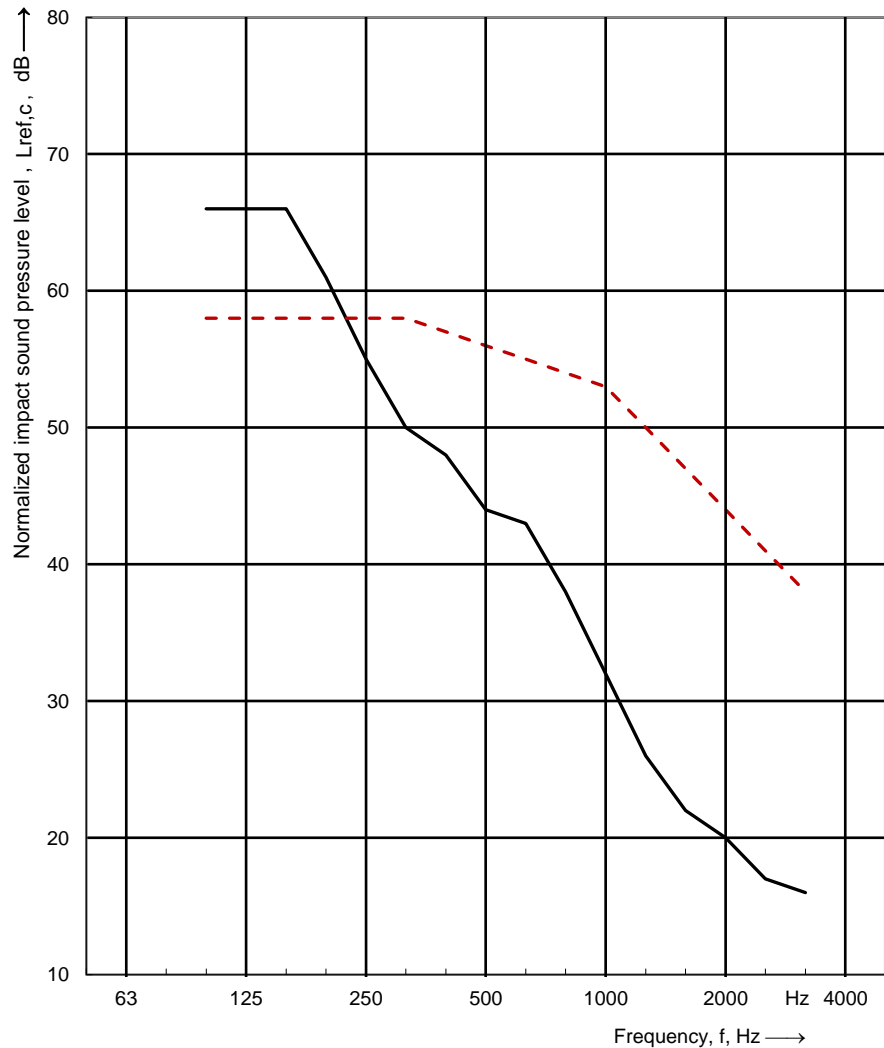
Relative air humidity: 58,0 %

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	66
125	66
160	66
200	61
250	55
315	50
400	48
500	44
630	43
800	38
1000	32
1250	26
1600	22
2000	20
2500	17
3150	16
4000	-
5000	-



Increase in Impact Insulation Class

ΔIIC = 26 dB

Measurement according DIN EN ISO 10140

Evaluation according ASTM E 2179 / ASTM E 989

Test report no.: A-2019-117

