

Reduction of impact sound pressure level according to DIN EN ISO 10140-1,2,3,4,5:2021-09

Annex TS - ΔL_w

Laboratory measurement of the reduction of transmitted impact sound by floor coverings on a reference floor

Evaluation according DIN EN ISO 717-2:2021-05

Measurement uncertainty according DIN EN ISO 12999-1:2021-04

Date of test: 18.01.2023

Construction: self leveling screed Knauf FE 50 Largo (78 mm, bonding time 5 days)
(from top to bottom) SONOTIZ AT 12 mm

Test floor: 14 cm concrete slab floor (4,27 m x 4,45 m) with an area-related mass $m' \approx 322 \text{ kg/m}^2$ (no ceiling)

Remarks: The sample area does not fulfill the requirements for categorie II according ISO 10140.
The Test was performed on just one tapping machine position.

Installation: by the testing institute

Receiving room:

Volume: 53,6 m³

Sending room:

Volume: 52,1 m³

Air temperature: 16,6 °C

Relative air humidity: 54,3 %

Boundary conditions:

Tapping Machine positions: 1

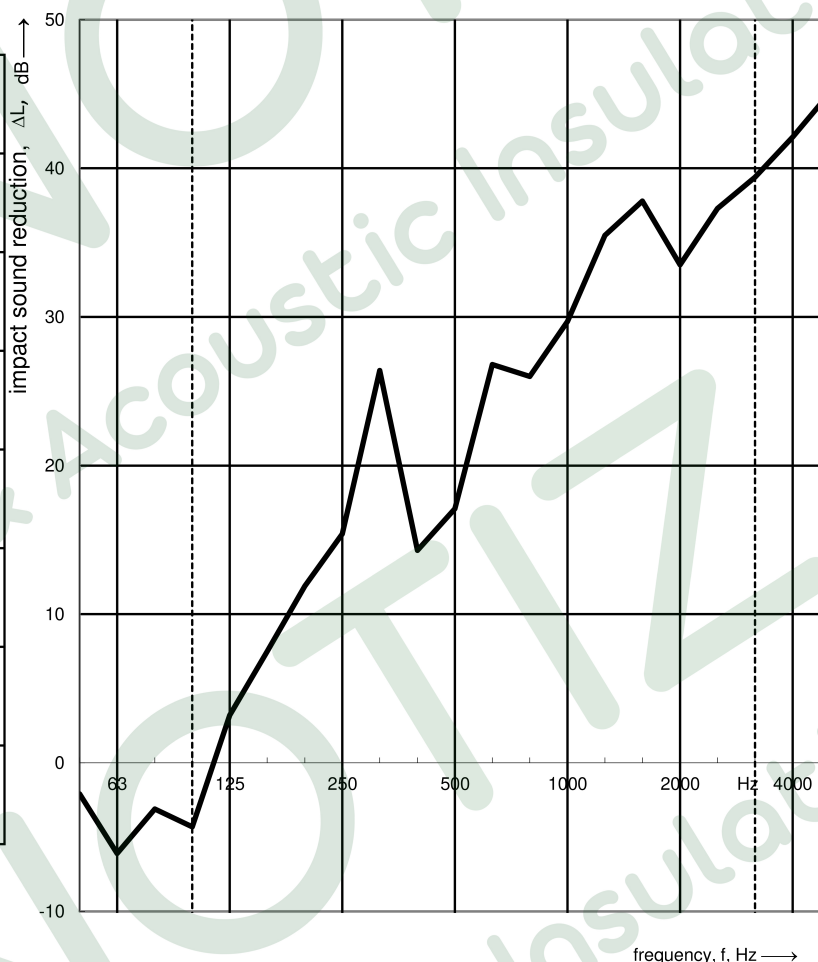
Microphone positions: 4

Category / sample area: II / ~1,0 m²

Type of reference floor: heavyweight reference floor

----- Frequency range for rating according to DIN EN ISO 717-2:2021-05

Frequency f [Hz]	$L_{n,0}$ 1/3 oct. [dB]	ΔL 1/3 oct. [dB]	U 1/3 oct. [dB]
50	60,9	-2,1	± 1,4
63	66,1	-6,1	± 1,3
80	61,6	-3,1	± 1,2
100	58,4	-4,3	± 1,1
125	63,4	3,2	± 1,0
160	61,4	7,5	± 1,0
200	63,9	11,9	± 1,0
250	68,6	15,4	± 1,0
315	64,4	26,4	± 1,0
400	64,7	14,3	± 1,1
500	64,2	17,1	± 1,2
630	65,7	26,8	± 1,3
800	66,1	26,0	± 1,6
1000	66,4	29,7	± 1,9
1250	68,6	35,5	± 2,2
1600	68,3	37,8	± 2,5
2000	68,8	33,5	± 2,8
2500	69,1	37,3	± 3,2
3150	70,0	39,4	± 3,6
4000	70,0	42,1	± 4,0
5000	67,8	45,1	± 4,4



Evaluation according DIN EN ISO 717-2:2021-05

$\Delta L_w = 24 \text{ dB}$ $C_{l,\Delta} = -15 \text{ dB}$

Measurement uncertainty according DIN EN ISO 12999-1:2021-04

$\Delta L_{lin} = 9 \text{ dB}$ $C_{l,r} = 4 \text{ dB}$

$\Delta L_w = (24,1 \pm 1,1) \text{ dB}$ ($k = 1$, two-sided)

These results are based on a test performed with an artificial source under laboratory conditions (engineering method) with the specified reference floor.

Test report no.: A-2022-366-01

