

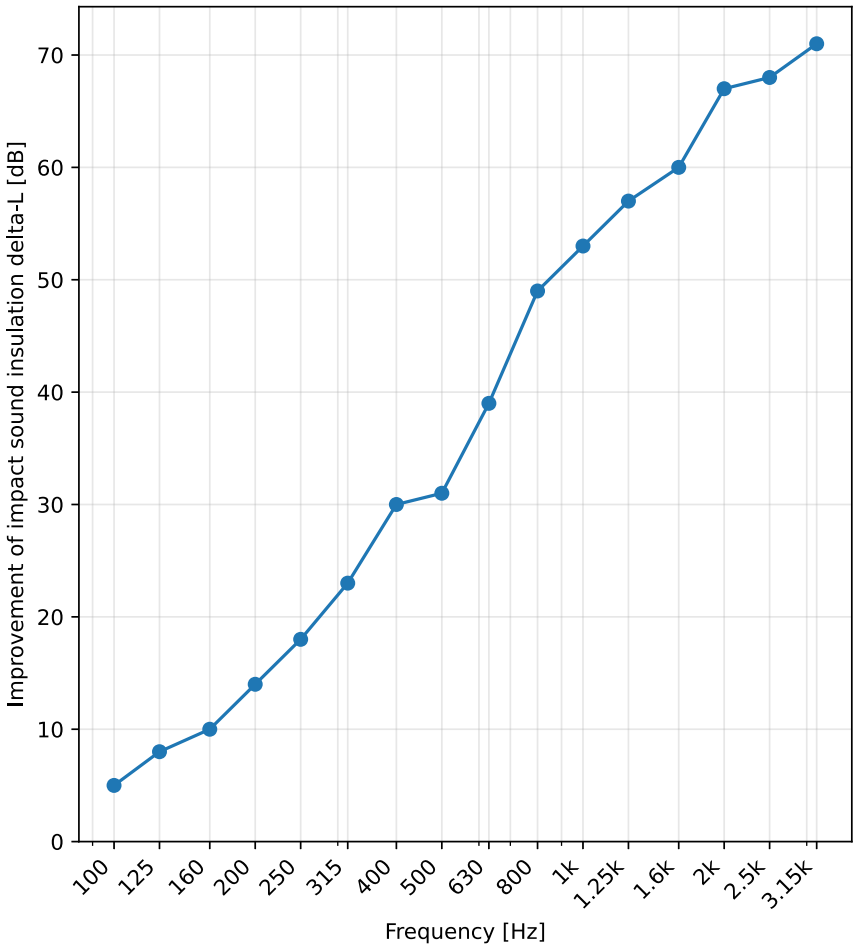
Floor-covering impact sound improvement

ISO 16251-1 laboratory measurement of the reduction of transmitted impact sound by a floor covering ΔL on a small mock-up per ISO 16251-1:2014. Weighted improvement ΔL_w rated per ISO 717-2:2020.

Client:	Example client	Manufacturer:	Example floors
Floor covering:	Textile floor covering (carpet), laid loose	Mounting:	Laid loose on the mock-up plate (ISO 10140-1 category I)
Mass per unit area [kg/m ²]:	2.4	Frequency range [Hz]:	100 to 3150
Test facility:	Small-mock-up impact rig (example)	Date of test:	2026-07-21
Temperature [°C]:	21	Ambient pressure [kPa]:	101.2

One-third-octave improvement ΔL [dB]

Frequency f [Hz]	ΔL [dB]
100	5.0
125	8.0
160	10.0
200	14.0
250	18.0
315	23.0
400	30.0
500	31.0
630	39.0
800	49.0
1000	53.0
1250	57.0
1600	60.0
2000	67.0
2500	68.0
3150	71.0



$$\Delta L_w (C_{l,\Delta}) = 29 \text{ (-13) dB}$$

Weighted reduction of impact sound pressure level ΔL_w rated on the 100 Hz to 3150 Hz one-third-octave bands using the ISO 717-2:2020 heavyweight reference floor (Table 4); the statement of results carries the spectrum adaptation term $C_{l,\Delta}$ (ISO 717-2:2020 Formula (A.4)).

Result vs requirement: $\Delta L_w = 29$ dB, required ≥ 20 dB → **PASS**

Laboratory: Phonometry reference example

Report no.: EXAMPLE-16251

Date: 2026-07-21

Notes: Illustrative example. The improvement spectrum is digitized from Foret, Chene and Guigou-Carter (Forum Acusticum 2011, ISO/CD 16251-1 draft), not an accredited measurement.

Operator: phonometry Signature: _____

■ The results relate only to the tested specimen.
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