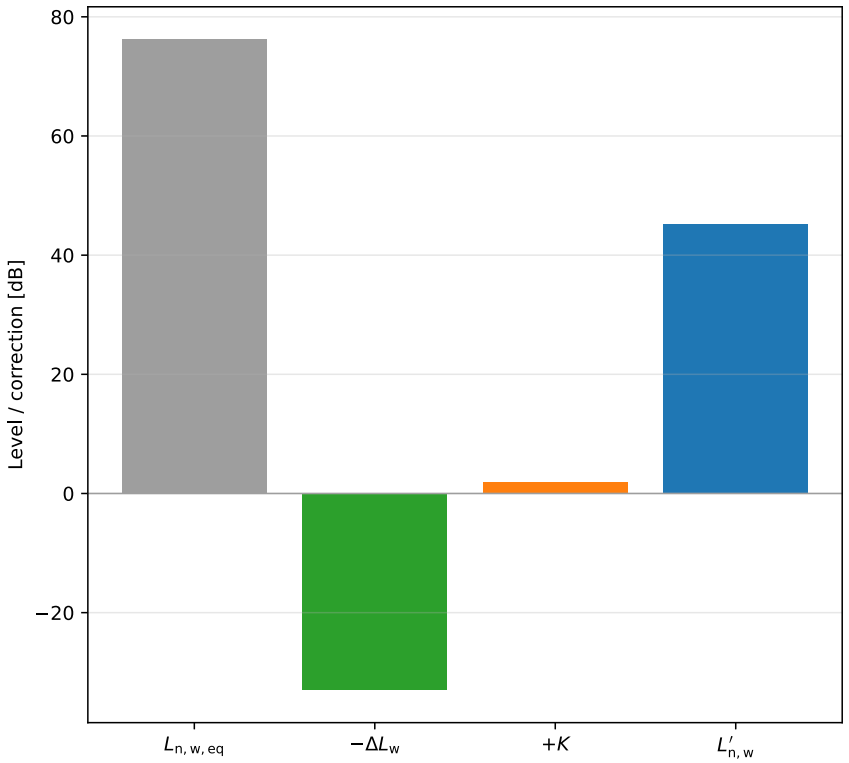
# Predicted impact sound insulation of floors

Predicted apparent normalized impact sound pressure level $L'_n$ (bare floor, covering and flanking) estimated in accordance with EN 12354-2:2000 (simplified single-number model, Clause 4.3). This is a prediction from element data, not a measurement. $L'_{n,w}$ per ISO 717-2.

| | | | |
|---|---|---|---|
| Client: | Example client | Sample area S [$m^2$]: | 20 |
| Description: | 0.14 m concrete floor with floating floor (Annex E.3) | Test room: | Dwelling above to dwelling below (example) |
| Date of test: | 2026-07-21 | Receiving room volume [$m^3$]: | 50 |
| Mass per unit area [$kg/m^2$]: | 322 | | |

Impact level prediction - Formula (21) terms [dB]

| | |
|---|---|
| Bare-floor level $L_{n,w,eq}$ | 76.2 |
| Covering improvement $\Delta L_w$ | 33 |
| Flanking correction K | 2 |




## $L'_{n,w}$ = 45 dB

Predicted (estimated) result computed from the building elements' performance by the EN/ISO 12354 simplified single-number model; it is not a measurement. The reported standard deviation of the model is about 2 dB.

Result vs requirement: $L'_{n,w}$ = 45 dB, required ≤ 53 dB → **PASS**

**Laboratory:** Phonometry reference example
**Report no.:** EXAMPLE-12354-2
**Date:** 2026-07-21
**Notes:** Floating-floor covering improvement DLw = 33 dB; mean flanking mass 145 kg/m2 (Table 1 -> K = 2 dB). Simplified single-number model (Clause 4.3).
Operator: phonometry  Signature: _____

■ Predicted result: the values relate only to the modelled configuration, not to a tested specimen.

Generated by phonometry.