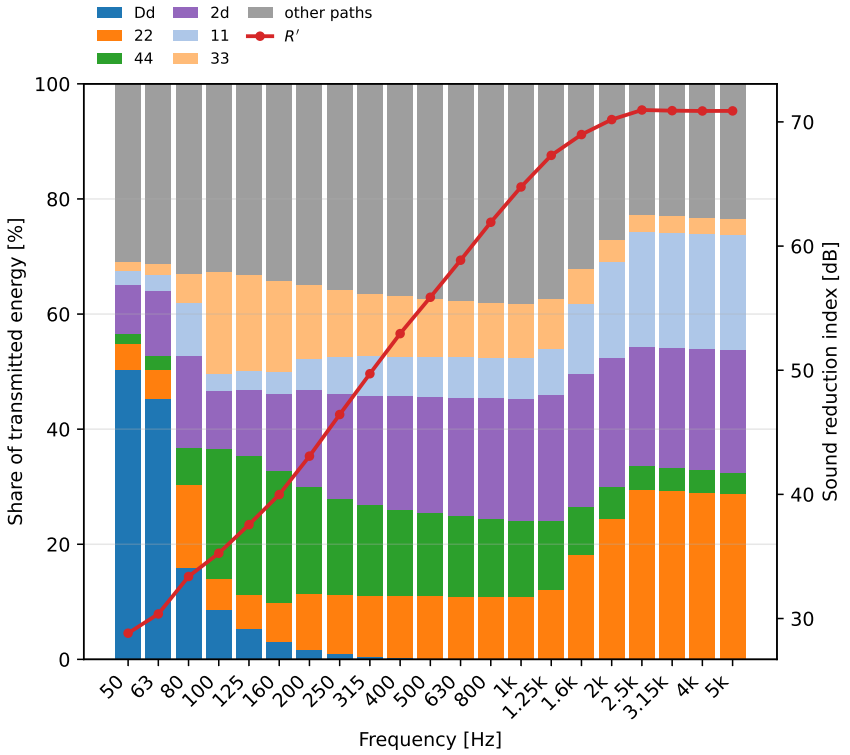
Predicted airborne sound insulation between rooms

Predicted apparent sound reduction index R′ per frequency band (direct and flanking transmission, in-situ element and junction data) estimated in accordance with ISO 12354-1:2017 (detailed model, Clause 4.2). This is a prediction from element data, not a measurement. R'_w per ISO 717-1.

Client:	Example client	Sample area S [m^2]:	20
Description:	220 mm concrete separating floor with floating floor (Annex L)	Test room:	Dwelling above to dwelling below (example)
Date of test:	2026-08-05	Source room volume [m^3]:	50
Receiving room volume [m^3]:	50		

Transmission paths - share of energy

2d	18.0%
22	14.2%
1d	12.9%
44	11.6%
4d	9.5%
11	9.3%
33	8.2%
3d	7.2%
Dd	6.3%
D2	1.1%
D1	0.8%
D4	0.5%
D3	0.4%



R'_w = **57 dB**

Predicted (estimated) result computed band by band from the building elements' performance by the EN/ISO 12354 detailed model; it is not a measurement. For buildings with homogeneous elements the prediction of the single-number rating carries no bias error and a standard deviation of 1.5 dB to 2.5 dB.

Result vs requirement: R'_w = 57 dB, required ≥ 52 dB → **PASS**

Laboratory: Phonometry reference example
Report no.: EXAMPLE-12354-1-L
Date: 2026-08-05
Notes: Detailed per-band model (Clause 4.2) over the Annex L building: 365 mm AAC external walls, 200 mm calcium-silicate internal walls, eight Annex E junctions, thirteen paths.
Operator: phonometry Signature: _____

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

Generated by phonometry.