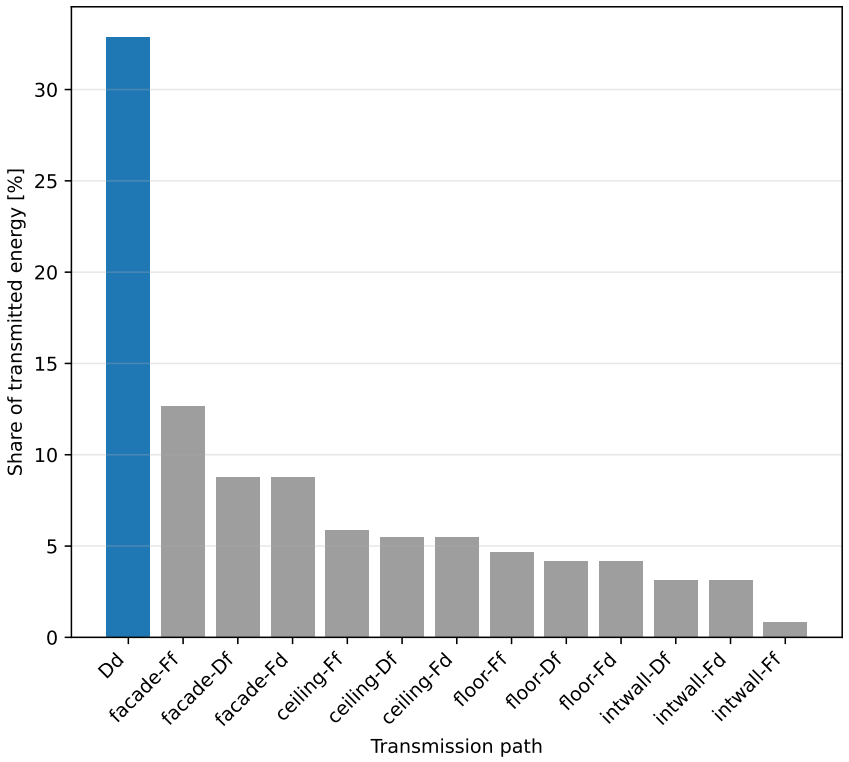
Predicted airborne sound insulation between rooms

Predicted apparent sound reduction index R′ (direct and flanking transmission) estimated in accordance with EN 12354-1:2000 (simplified single-number model, Clause 4.4). This is a prediction from element data, not a measurement. R'_w per ISO 717-1.

Client:	Example client	Sample area S [m²]:	11.5
Description:	Separating wall, Rs,w = 57 dB (EN 12354-1 Annex H.3)	Test room:	Dwelling A to dwelling B (example)
Date of test:	2026-07-21	Source room volume [m³]:	53
Receiving room volume [m³]:	50		

Transmission paths $R_{ij,w}$ [dB]

Dd	57
floor-Ff	65.5
floor-Df	66
floor-Fd	66
ceiling-Ff	64.5
ceiling-Df	64.8
ceiling-Fd	64.8
facade-Ff	61.1
facade-Df	62.7
facade-Fd	62.7
intwall-Ff	73
intwall-Df	67.2
intwall-Fd	67.2



R'_w = **52 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: R'_w = 52 dB, required ≥ 50 dB → **PASS**

Laboratory: Phonometry reference example
Report no.: EXAMPLE-12354-1
Date: 2026-07-21
Notes: Flanking elements: floor Rw = 49, ceiling 46, facade 42, internal wall 33 dB; junctions per Annex E/H. Simplified single-number model (Clause 4.4).
Operator: phonometry Signature: _____

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

Generated by phonometry.