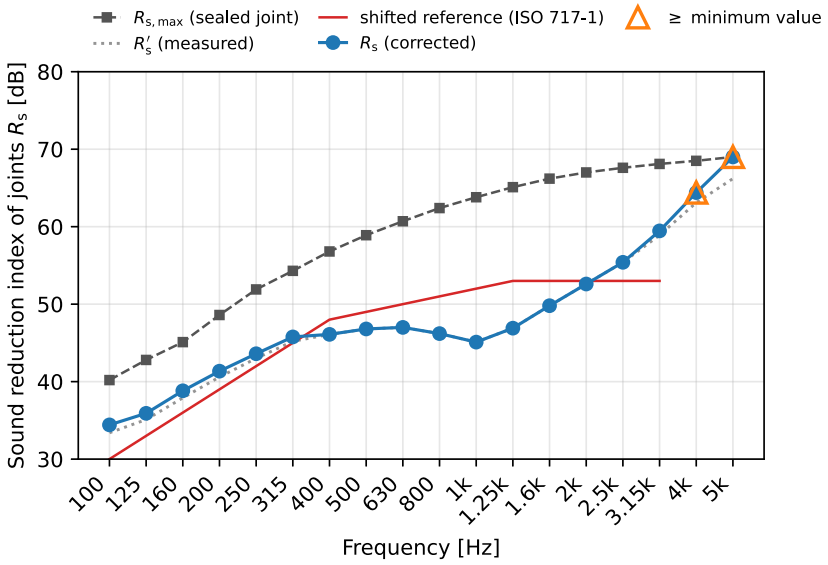
Sound reduction index of joints according to ISO 10140-1

Determination of sound reduction index of joints per metre, R_s, by ISO 10140-1:2021 Annex J (Formulae (J.1) and (J.2)). Rating in accordance with ISO 717-1:2020.

Client:	Example client	Description of the test specimen:	EPDM rebate seal on a door leaf, nominal gap 5 mm
Date of test:	2026-10-01	Test length l [m]:	5.4
Separation wall:	Lead-lined filler wall with the specific small test opening of ISO 10140-5	Test noise:	Pink noise
Volumes of the test rooms [m³]:	53 / 51	Maximum joint sound reduction index:	$R_{s,max,w}$ (C; C_{tr}) = 61 (-1; -6) dB
Mounting conditions:	Seal on the frame rebate, leaf closed to the nominal gap	Climate in the test rooms:	source room 21 °C, 45 % / receiving room 20.5 °C, 47 %

Sound reduction index of joints R_s

Frequency f [Hz]	R_s [dB]
100	34.4
125	35.9
160	38.8
200	41.3
250	43.6
315	45.8
400	46.1
500	46.8
630	47.0
800	46.2
1000	45.1
1250	46.9
1600	49.8
2000	52.6
2500	55.4
3150	59.5
4000	≥ 64.4
5000	(≥ 69.0)



$R_{s,w}$ (C; C_{tr}) = 49 (-1; -4) dB $C_{100\text{-}5000}$ = +0 dB; $C_{tr,100\text{-}5000}$ = -4 dB

Evaluation according to ISO 717-1 (in one-third octave bands). A value after ≥ is a minimum value; one in brackets is limited by the maximum sound reduction index of the test arrangement $R_{s,max}$ (ISO 10140-1:2021 J.1).

Result vs requirement: $R_{s,w}$ = 49 dB, required ≥ 45 dB → **PASS**

Laboratory: Phonometry reference example
Report no.: EXAMPLE-10140-1-J
Date: 2026-10-01
Operator: phonometry Signature: _____

■ The results relate only to the tested specimen.

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