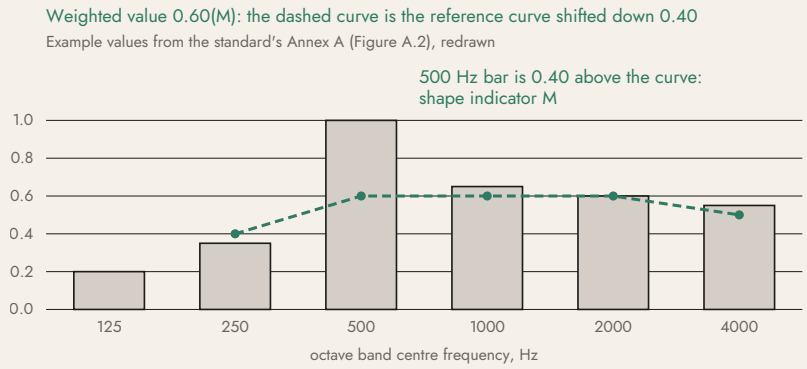
Acoustic slatted panels: *reading absorption* ratings

An absorption number belongs to the whole build-up tested. Read the full curve, the shape letter and the depth of construction.

AT A GLANCE

Rating	What it is	Where defined	What to remember
Practical sound absorption coefficient, αp	Absorption in each octave band, 0 to 1, from reverberation-room test data (third-octave values averaged to octaves, rounded to 0.05, capped at 1.00)	BS EN ISO 11654, clause 4.1	The full curve. Ask for it; it is the most useful thing on a report.
Weighted coefficient, αw	One number, 0 to 1: the shifted reference curve read at 500 Hz	BS EN ISO 11654, clause 4.2	Hides the shape of the curve. Rating starts at 250 Hz, so it says nothing below that.
Shape indicator L, M, H	Letter(s) after αw where a band exceeds the shifted curve by 0.25 or more: L at 250 Hz, M at 500 or 1,000, H at 2,000 or 4,000	BS EN ISO 11654, clause 4.3	A warning that the product is much better in one range than its single number suggests.
Absorber class A to E	A banding of αw for information	BS EN ISO 11654, Annex B (not read)	Class limits are not given here: read the standard.
NRC and SAA	United States single numbers, averages of tested bands	ASTM C423 (not read)	Not the same as αw: do not swap them.
Rw	How much sound a wall or door blocks. Insulation, not absorption	BS EN ISO 717-1 (not read)	Different question. See our acoustic doors sheet.

Clause references are to ISO 11654:1997, read in full in a publisher's free preview; Annexes B and C were not in it. NRC, SAA and Rw rows are pointers: no figures from those standards appear on this sheet.



The Annex A example absorber with a 1.00 value at 500 Hz: practical coefficients as bars and the shifted reference curve as a dashed line. Values from ISO 11654:1997 Annex A, redrawn by Make Bespoke Studio.

SPECIFICATION WORDING

ACOUSTIC ABSORPTION OF A SLATTED WALL

Acoustic panelling ref [AP-01]: slats [18 x 45] mm at [24] mm gap on [6] mm felt on [12] mm board, [on 50 x 25 battens at 400 centres, forming a [50] mm air space / fixed direct], as detail [D-22]. The assembly is to have a reverberation-room test report to BS EN ISO 354 and a weighted coefficient to BS EN ISO 11654 of not less than αw [0.60], with practical coefficients for each octave band 250 to 4,000 Hz and any shape indicator stated. The report is for this build-up including the depth of construction, or is submitted with a written statement of every difference, accepted by [the acoustician] before ordering.

EVIDENCE ON SUBMISSION

With the sample, the partner workshop submits the test report (laboratory, date, specimen description, mounting and depth, test area, αp table, αw with shape indicators) and the fire classification of the same build-up. Absorption figures for a different build-up are not accepted as a substitute.

NO SUBSTITUTION

Slat width, gap, thickness, felt, board, fixing and cavity depth are as tested. A change to any of them is a variation requiring [the acoustician]'s written approval and, where the report no longer applies, a new test.

TERMS USED

Reverberation

How long sound lingers in a room after the source stops; absorbing surfaces shorten it.

Sound absorption coefficient

The share of sound energy a surface absorbs rather than reflects, from 0 to 1, per frequency band, from a reverberation-room test.

αw (weighted sound absorption coefficient)

A single number between 0 and 1: the value at 500 Hz of a standard reference curve shifted down in 0.05 steps until the product's shortfalls below it total 0.10 or less. BS EN ISO 11654.

Shape indicator

A letter L, M or H after αw showing a band is 0.25 or more above the shifted curve at low, mid or high frequencies; read the full curve when one is present.

Depth of construction

The air space behind an absorber in the test; the standard requires it to be given with the result.

STANDARDS AND SOURCES

- BS EN ISO 11654:1997 (ISO 11654:1997): BSI Knowledge: Current, Under Review; published 15 Nov 1997. Full text of clauses 1 to 5 and Annex A read in a publisher's preview on 7 Nov 2026; Annexes B and C were not in it.
- BS EN ISO 354:2003: BSI Knowledge: Current, Under Review; published 9 Jun 2003. Listing only; the standard was not read.

Full guide: https://makebespoke.com/trade/technical/acoustic-wall-panelling-and-slatted-panels. Make Bespoke Studio coordinates manufacture through its partner workshops. Figures are guidance only and your specification governs; some may be superseded, so contact the studio to verify.