

Vaulori Acoustic Panel

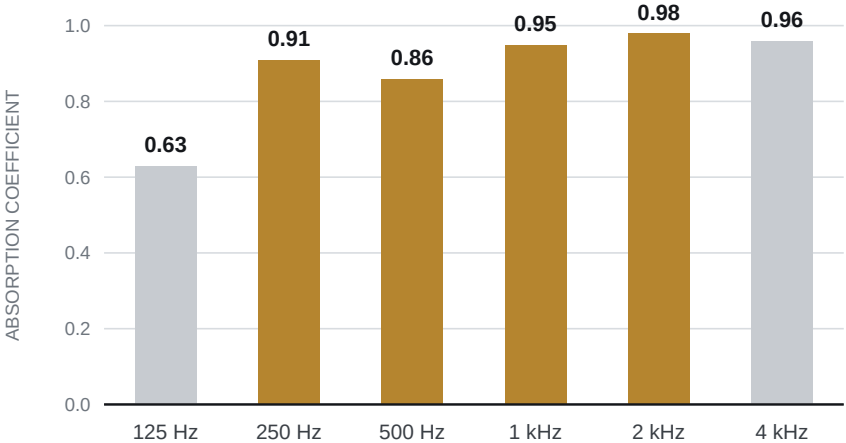
1200 × 600 × 25 mm · fibreglass core, 100 kg/m³ · fabric wrapped with resin-hardened bevelled edges

NOISE REDUCTION COEFFICIENT

NRC 0.95

Absorption coefficient by octave band

Highlighted bands are the four frequencies averaged to produce the NRC figure



TEST DETAILS

STANDARD
ISO 354:2003 / GB/T 20247-2006

METHOD
Reverberation room

LABORATORY
Beijing Lvchuang Environmental Testing (CNAS accredited)

REPORT NO.
LCA-JC-2020-02337

TEST DATE
20 July 2020

SPECIMEN
14 panels — 10.08 m² (2.4 × 4.2 m) in a 247 m³ chamber

MOUNTING
Type E — fixed to perforated steel framing over a 350 mm unfilled air cavity

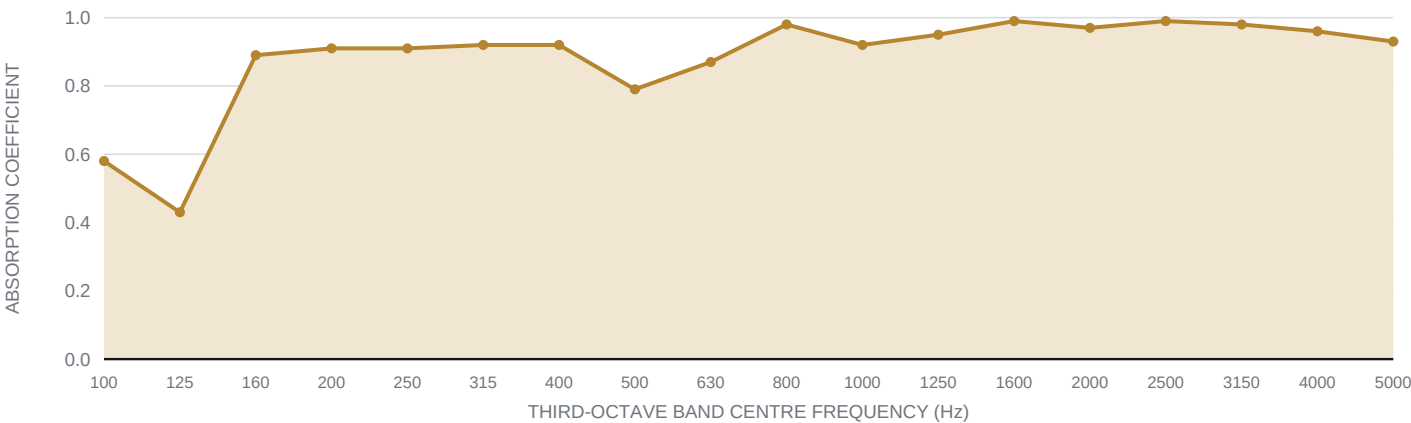
Measured absorption coefficients

Octave band centre frequency	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz
Sound absorption coefficient	0.63	0.91	0.86	0.95	0.98	0.96

NRC is the average of the 250 Hz, 500 Hz, 1 kHz and 2 kHz coefficients, rounded to the nearest 0.05.
Mean absorption across all third-octave bands measured from 100 Hz to 5 kHz: 0.88.

Full frequency response, 100 Hz to 5 kHz

Third-octave band measurements across the tested range



In plain terms

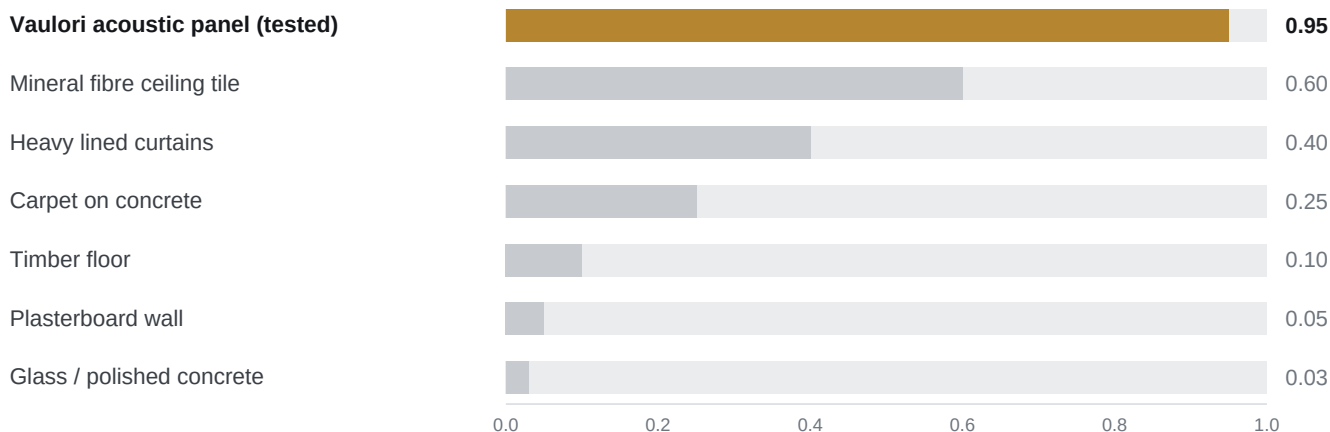
Across the frequencies that carry speech, crockery and general room noise, roughly 90–95% of the sound energy reaching the panel is absorbed rather than reflected back into the space. Absorption falls away below 160 Hz, which is normal for a 25 mm panel.

What NRC measures

Noise Reduction Coefficient is a single number between 0.00 and 1.00 describing how much sound a surface absorbs. A surface at 0.00 reflects everything straight back into the room; a surface at 1.00 absorbs effectively all of it. The figure is the average of the absorption measured at 250 Hz, 500 Hz, 1 kHz and 2 kHz — the range that carries most speech and everyday room noise.

Where this sits against common surfaces

Only the Vaulori figure comes from the test report. The others are indicative industry values, shown for context.



Three things worth knowing

Absorption is not soundproofing

Panels reduce echo and reverberation inside a room — the build-up that makes a café or open-plan office feel loud and makes conversation hard work. They are not a sound barrier and will not stop noise passing through a wall into the next tenancy.

NRC is a mid-frequency average

It says nothing about deep bass. This panel measured 0.63 at 125 Hz — still substantial, but well below its mid-range figure. Where low-frequency content matters, such as a music venue or a gym, the full frequency response on page one is the more useful guide.

Mounting changes the result

The tested figure was achieved with a 350 mm air cavity behind the panel, typical of a suspended or ceiling-mounted installation. Panels fixed hard against a wall absorb less at lower frequencies. We recommend a mounting method to suit the room and how it is used.

How much is usually needed

A high absorption coefficient reduces the panel area required, but coverage still matters. As a starting point, hospitality and open-plan spaces typically need panels across 15–25% of the combined wall and ceiling area, and quieter offices, clinics and consulting rooms nearer 10–15%. Final panel count and placement are confirmed on site — spreading panels across two surfaces generally outperforms concentrating them on one.

Working out what your space needs?

Send through the room dimensions, surface finishes and how the space is used, and we will come back with a panel count, a suggested layout and an itemised quote. A full copy of the test report is available on request.

info@vaulori.com.au

vaulori.com.au

Performance data relates to the specimen and mounting configuration described in test report LCA-JC-2020-02337. A full copy of the report is available on request. Comparison figures for other materials are indicative industry values provided for context only and are not measured data.