Shadbolt

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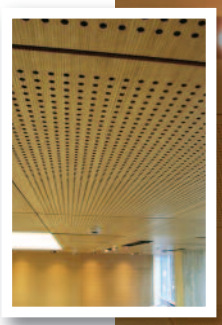
Acoustic panels



Shadbolt acoustic panels are sound-absorbing and designed to reduce sound reflection from walls and ceilings. They help to improve acoustics by controlling reverberation times in rooms and by meeting the need for sound absorption in circulation spaces.

- Panels are purpose-made for each project, and designs can be varied to meet the acoustic requirements of individual spaces. Perforation designs can be tuned by acoustic engineers to provide optimum performance to suit the room size and purpose.
- Can be used to meet the requirements of Building Regulations, particularly for schools and residential buildings.
- Also for use in auditoriums, concert halls, assembly halls, conference rooms, offices, public buildings, hotels and sports halls.
- Available in a large range of veneers, which can be fully matched with doors, frames, skirtings and fittings if required.
- Other finishes in an almost unlimited range of colours to allow designers freedom to achieve any desired aesthetic effects.
- Acoustic (sound insulating) doors can also be supplied, see separate brochure.

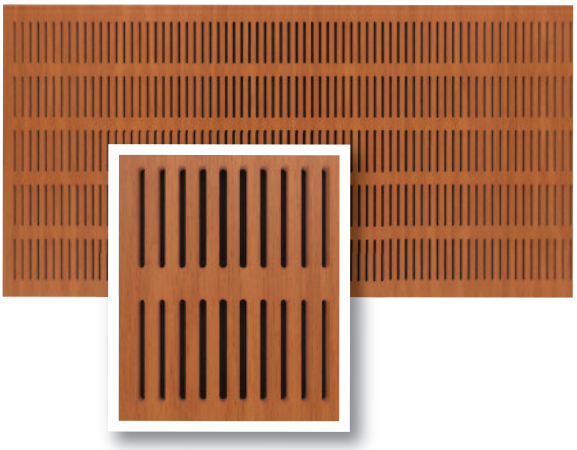
Appearance

A few examples of panel patterns and finishes are illustrated here. For a wider range see our website.
Patterns: panel slots or perforations can be cut to any pattern required subject to sound absorption requirements.

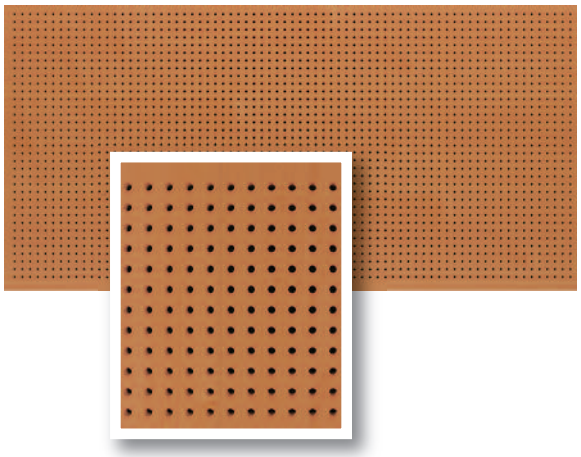
Finishes: panels can be supplied in a range of finishes including veneers, laminates and coloured lacquer finishes.
Veneered panels may be co-ordinated throughout a scheme with doors, frames, skirtings, trims etc.

Veneers

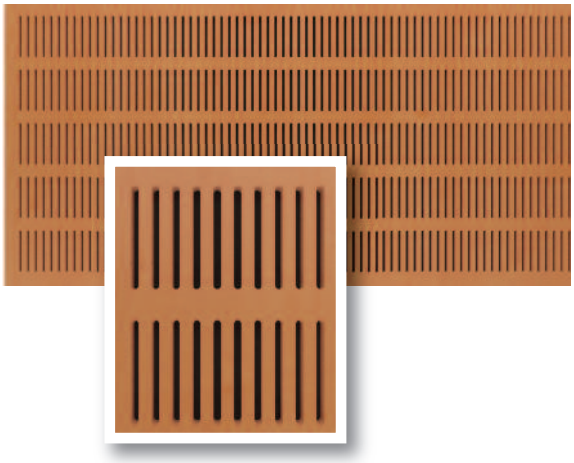
Cavatina, Crown cut European oak



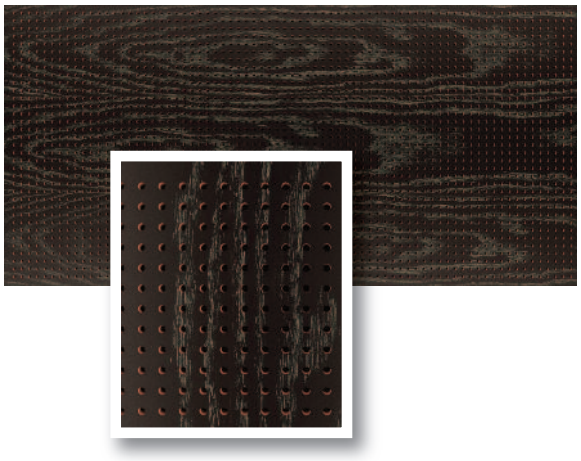
Nocturne, Crown cut Canadian maple



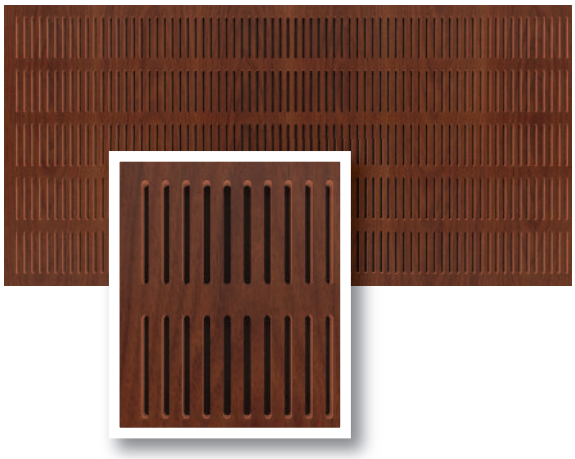
Cavatina, Crown cut Canadian maple



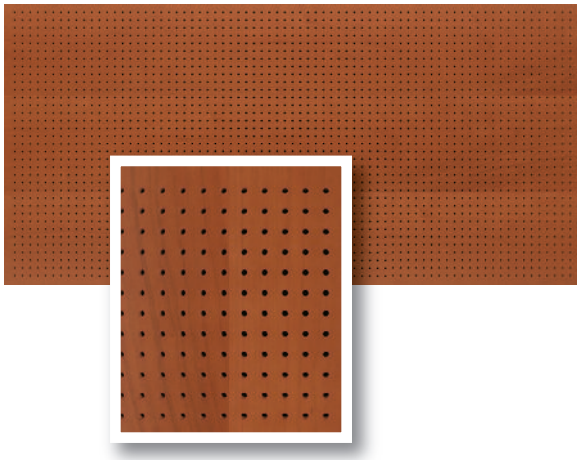
Nocturne, Crown cut smoked oak



Cavatina, Crown cut American black walnut



Sonata, Crown cut cherry



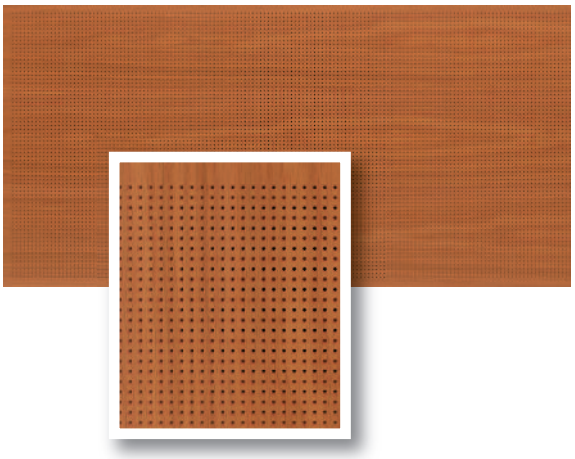
Construction

Shadbolt acoustic lining systems generally comprise MDF panels with a pattern of perforations or slots cut through the panel, backed by an absorbent membrane such as mineral wool.

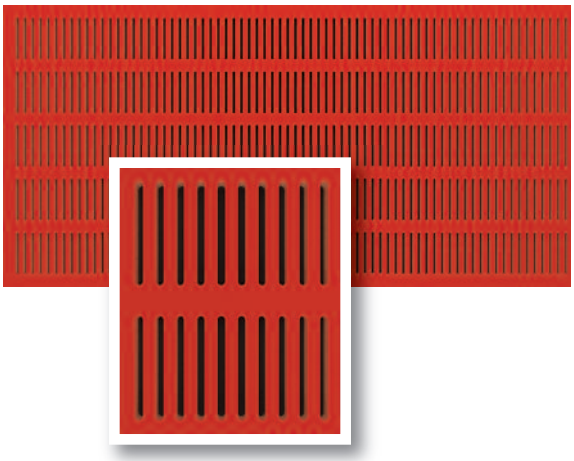
Bespoke skirting and cornice details can be supplied as required.
Panels may be supplied with any or all edges lipped in a range of treatments.

Lacquers

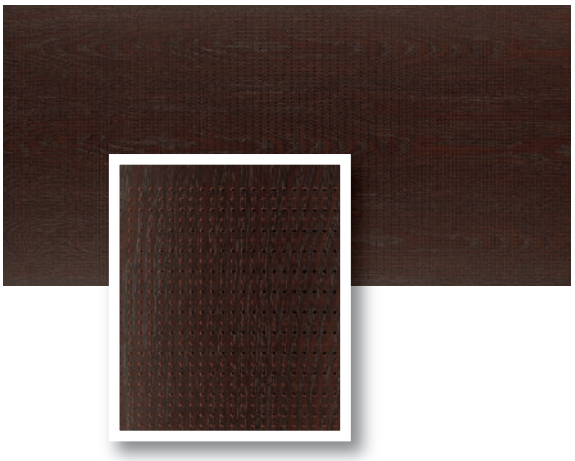
Pavane, Crown cut European oak



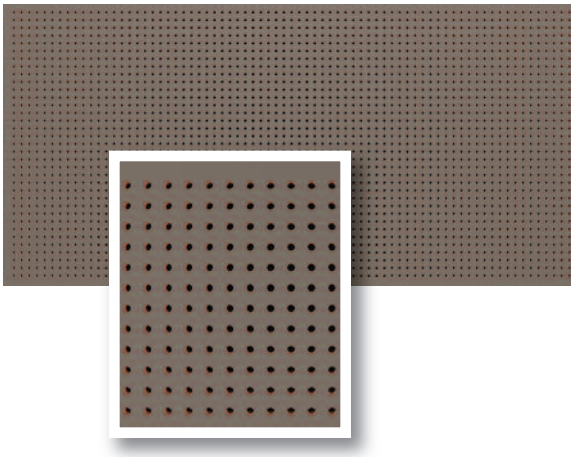
Cavatina, RAL 3020 red



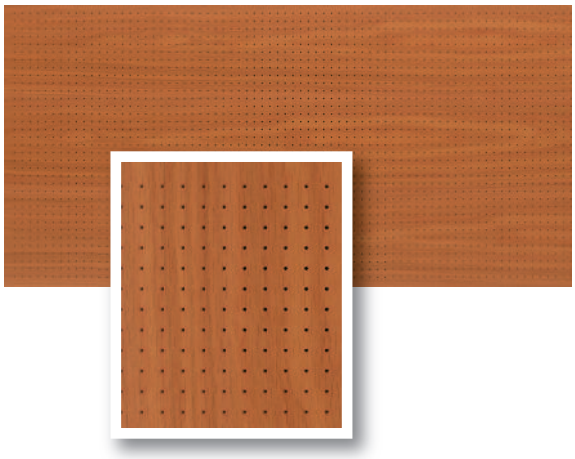
Pavane, Crown cut European oak, limed



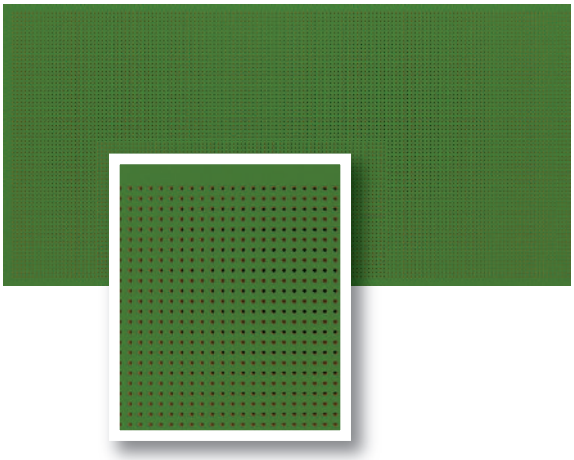
Nocturne, RAL 9023 grey



Overture, Crown cut European oak



Pavane, RAL 6017 green



Sizes

All panels are purpose-made to sizes required. Note that panel size, edge details and joint design will have an effect on both appearance and acoustic performance.

Acoustic performance

Shadbolt can provide extensive test information on the sound absorption performance of our panels; see the table for a summary of results.

Tests have been carried out by an independent UKAS-accredited organisation to BS EN ISO 354 *Measurement of sound absorption in a reverberation room* and rated in accordance with BS EN ISO 11654 *Sound absorbers for use in buildings. Rating of sound absorption.*

Acoustic design

Panel performance can be tuned to suit the room size and purpose by adjusting characteristics such as the perforation pattern, the thickness of the absorbing membrane, and the air gap between panel and wall. Acoustic effectiveness in practice depends on the precise design of the panels and their arrangement in a space. We recommend that an acoustic consultant is employed to design the acoustics of rooms and circulation spaces.

Acoustic panels tested performance

For more on test results see our website.

Shadbolt type	a_w Sound absorption to BS EN ISO 354	Class to EN ISO 11654
Cavatina	0.90	A
Cavatina	0.80	B
Nocturne	0.60	C
Pavane	0.60	C
Sonata	0.45	D
Overture	0.30	D

Spread of flame

Standard acoustic panels will meet Building Regulations Class 3 flame spread requirement without further treatment. They can also be given a special factory-applied lacquer finish to achieve Euroclass B (Class 0 equivalent) or Euroclass C (Class 1 equivalent) performance in accordance with EN 11925-2 and EN 13823 respectively.

This treatment does not affect acoustic performance or surface appearance. The fire-retardant MDF core is dyed pink for identification, and this will be visible in the perforation holes but is normally inconspicuous.

Specification

Specification clauses are given in NBS Plus at www.thenbs.com or on our website. Because our products are purpose-made, specifiers should consult Shadbolt when preparing a specification.

Installation

Correct installation is fundamental to performance, and we recommend that panels are installed by a competent joinery installer.