

SoundScapes® Shapes

Armstrong®
CEILING SOLUTIONS

Now available in Wood Effects
and RAL Colours



SOUNDSCAPES®

SOUNDSCAPES® Shapes

Hospitality
Retail Offices
Reception Areas
Atriums
Open Plenum Areas
Transportation
Airports
Exhibitions

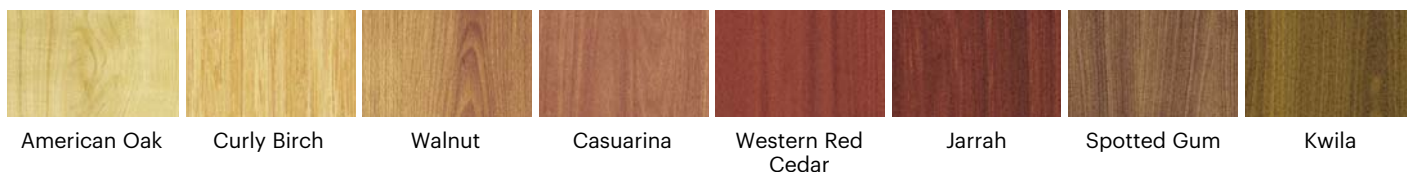
Create, Accentuate, Define

SOUNDSCAPES® Shapes is a designer acoustic panel, pre-formed into a convex, concave, square, circle, hexagon, trapezoid, or parallelogram shape.

SOUNDSCAPES Shapes improves the overall comfort of an individual's working environment, offering excellent sound absorption and light reflectance. SOUNDSCAPES Shapes can be used to provide a striking design for a new space or be used to refresh or renovate an existing area. SOUNDSCAPES Shapes can retrofit to most ceiling systems in minutes and are the ideal solution for an area that suffers from background noise and reverberation.

No special tools are required for installation and you can easily adjust and fit the SOUNDSCAPES Shapes to a variety of heights and angles.

Wood Effects: Refer to back page for selection considerations and the "SOUNDSCAPES Finishes" Brochure for larger images.



RAL Colours Available (sample only). For a full list of RAL Colours, refer to the "SOUNDSCAPES Finishes" Brochure.



Restructure and Retrofit the Space

Available Shapes



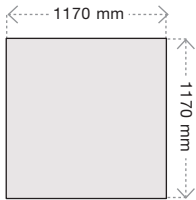
All SOUNDSCAPES Shapes are flat panels.

SOUNDSCAPES® Shapes are flat, 30 mm thick, glass fibre panels available in 10 different shapes. The face and edges are finished with an abrasion resistant paint on a glass fibre face scrim providing a white and strong surface.

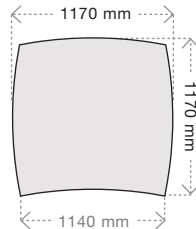
SOUNDSCAPES Shapes are very quick and easy to install, requiring no special tools and can easily be adapted to a variety of heights and angles.

A variety of colours are available on request.

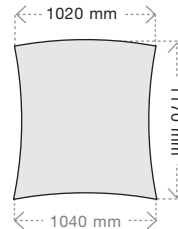
Nominal 1200 x 1200 mm shapes



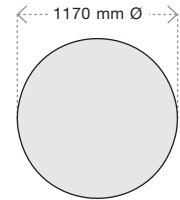
Square



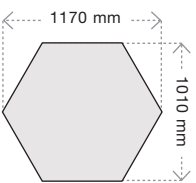
Convex



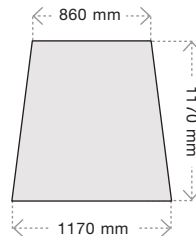
Concave



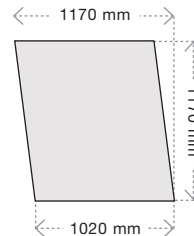
Circle



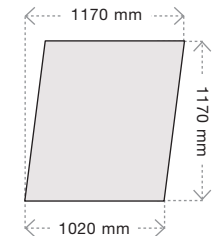
Hexagon



Trapezoid

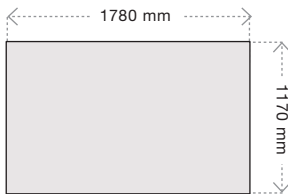


Left Parallelogram



Right Parallelogram

Nominal 1200 x 1800 mm shapes

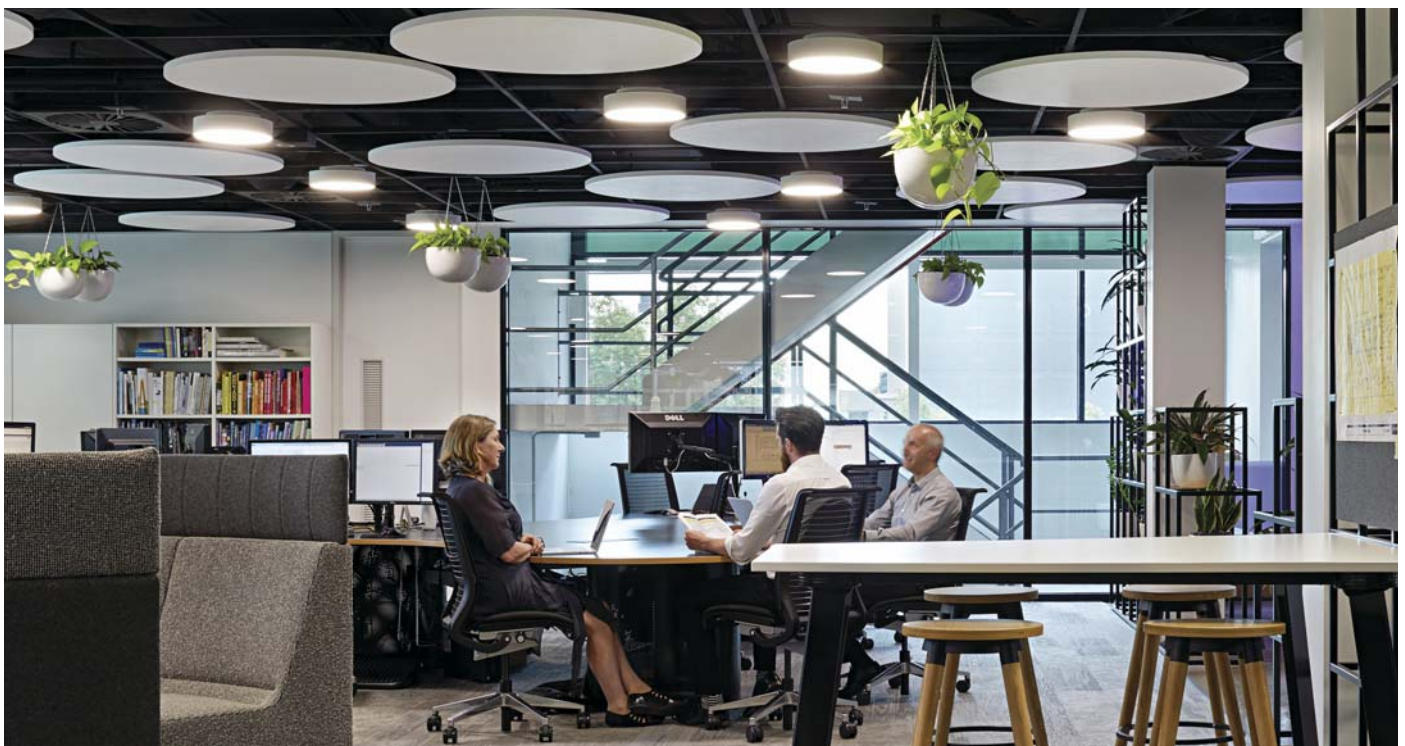


Small Rectangle

Nominal 1200 x 2400 mm shapes



Large Rectangle



Enhanced Acoustical Benefits

The installation of SOUNDSCAPES® Shapes in a reverberant space can significantly reduce the background noise and reverberation time, enhancing speech intelligibility.

Sound Absorption in Sabin

The Sabin is the unit of total sound absorption provided by an object. This is the preferred metric for “space absorbers” such as clouds, canopies or baffles installed within an architectural space.

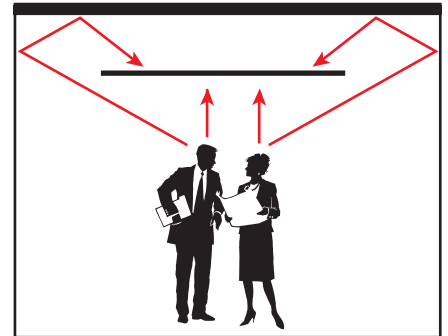
Depending on its size, each SOUNDSCAPES Shapes provides between 1.61 and 5.05 Sabin of sound absorption per piece, calculated as an average of 500 – 4000 Hz (EN ISO 354).

SOUNDSCAPES Shapes provide greater sound absorption than a continuous ceiling of the same visible surface area because the sound is absorbed from both the front and back surfaces.

Which means one SOUNDSCAPES Shapes can absorb up to 88% more sound than the same visible surface area of a traditional wall to wall Optima high acoustic ceiling.

A number of factors may affect the installed acoustical performance including:

- Size and shape of cloud
- Number of clouds and their layout and suspension height



For SOUNDSCAPES® Shapes Convex

Meeting Room with:

- a volume of 100 m³
- only with a carpet
- a soffit at 3.5 metre height
- a required Rt of 0.4 – 0.6 sec
→ Will need 7 Concave and 8 Convex canopies
- See graph below

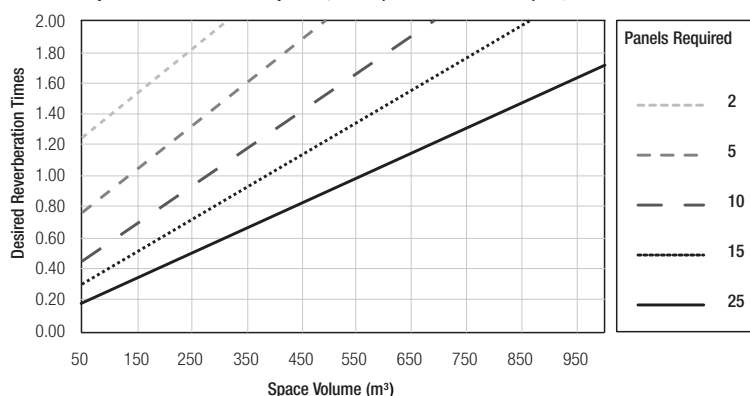


Sound absorption – Sabin (metric)

Shape	Sabin* per item
Square	2.48
Convex	2.28
Concave	1.94
Circle	2.12
Hexagon	1.61
Trapezoid	2.15
Left Parallelogram	2.15
Right Parallelogram	2.15
Small Rectangle	3.77
Large Rectangle	5.05

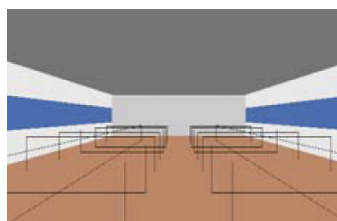
Acoustical Panel Calculator

Optra Convex Canopies (In a space with a carpet)

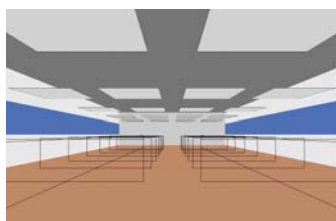


* Average of 500 – 4000Hz in accordance with EN ISO 354-2003. These values may vary depending on the No. of units, spacing and suspended distance of units.

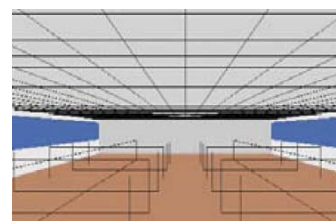
EXPOSED STRUCTURE



SOUNDSCAPES SHAPES



FULL ULTIMA® CEILING



450 square metres Exposed Structure (15 metres x 30 metres), 4.5 metres to deck, drywall with windows two sides, commercial carpet

Acoustic Solutions	No Ceiling	SOUNDSCAPES Shapes @ 25% of ceiling	SOUNDSCAPES Shapes @ 50% of ceiling	Continuous ULTIMA® Ceiling
	Exposed Structure	78 Panels: Squares	156 Panels: Squares	Suspended 1 metre below deck
Reverberation Time (sec)	3.4	1.3	0.8	0.6
RT Improvement (%)	ref	62%	76%	83%
Sound Level Reduction (dB)	ref	– 3 dB	– 5 dB	– 5 dB
Sound Absorption in Sabin (metric) for Coverage Area	ref	78 panels @ 2.48 Sabin/ panel = 193.4 Sabin	156 panels @ 2.48 Sabin/ panel = 386.9 Sabin	450m ² x 0.84α = 378 Sabin

Notes: All values for the averaged sound absorption coefficient, Sabin absorption, and dB level reduction of 125Hz-4kHz, are based on the speech frequency range of 500-4000Hz. Reverberation Time is an average of 500 & 1000Hz only. Sabin values are all metric.

Individual Suspension

SOUNDCAPES® Shapes are extremely versatile and can be positioned individually or in a group. Thanks to the flexibility of the product and installation it is possible to create your own personal designs and layouts.



Group Configuration

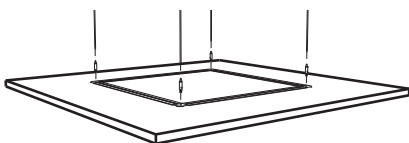
Using a grouping frame allows a perfect alignment of multiple Shapes close to each other.

You can group panels in unlimited combinations. Grouping layout ideas are suggested in the SOUNDCAPES Shapes technical brochure. It is also possible to create your own personal designs and layouts.

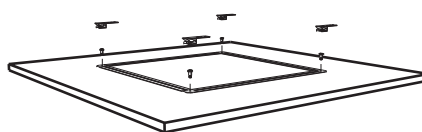
Thanks to the flexibility of the grouping system, you can make your ideas become reality.



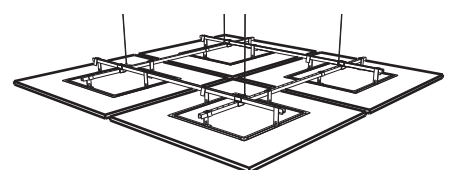
1. Individual Suspension



2. Individual Attachment to Drywall



3. Group Suspension



Individual suspension requires:

- (2) Deck Hanging Kits (item 5450) for every 1200x1200 / 1200x1800mm Shapes panel
- (3) Deck Hanging Kits (item 5450) for 2400x1200mm Shapes panel

Individual attachment requires:

- (2) Drywall Hanging Kits (item 5455) for every 1200x1200 / 1200x1800mm Shapes panel
- (3) Drywall Hanging Kits (item 5455) for 2400x1200mm Shapes panel

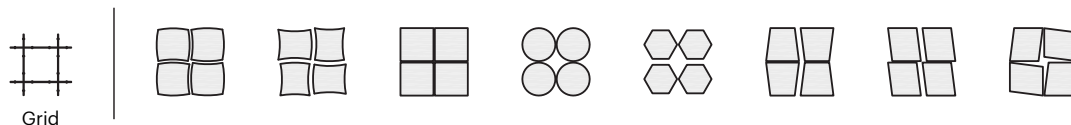
See following page for components

Ways You Can Suspend SOUNDSCAPES® Shapes in Groups

Grouping Ideas – with standard accessory kits. Group applications always require more than one kit. You can group shapes in unlimited combinations. Below are a few ideas made possible

4-Panel Square Group Layouts

To create these kinds of groups with a minimum of 50mm spacing between shapes, you need to order:

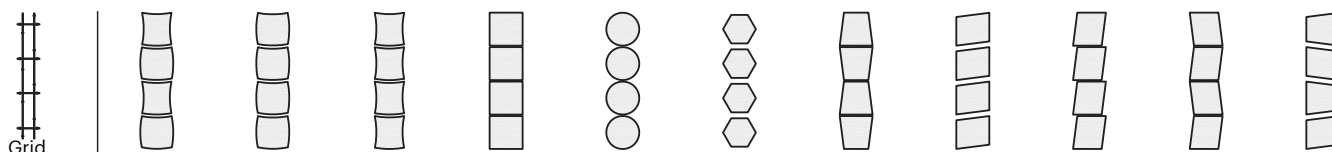


Accessories

- 2 x 5450 Deck Hanging Kits
- 1 x 5453 Frame Alignment Kit
- 1 x 5451 Grouping Frames Kit
- 4 x 5454 Panel Hook Kits

4-Panel Linear Group Layouts

To create these kinds of groups with a minimum of 50mm spacing between shapes, you need to order:

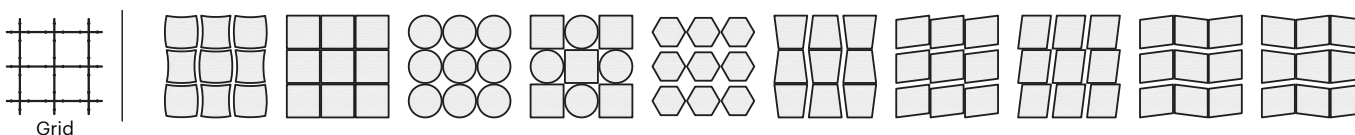


Accessories

- 4 x 5450 Deck Hanging Kits
- 4 x 5454 Panel Hook Kits
- 2 x 5453 Frame Alignment Kits
- 2 x 5451 Grouping Frame Kits
- 1 x 5452 Frame Splice Kit

9-Panel Square Group Layouts

To create these kinds of groups with a minimum of 50mm spacing between shapes, you need to order:

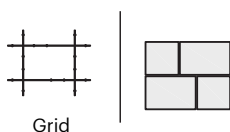


Accessories

- 5 x 5450 Deck Hanging Kits
- 3 x 5453 Frame Alignment Kits
- 2 x 5451 Grouping Frame Kits
- 9 x 5454 Panel Hook Kits

4-Panel Rectangular Layout

To create these kinds of groups with a minimum of 50mm spacing between shapes, you need to order:

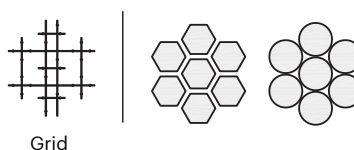


Accessories

- 3 x 5450 Deck Hanging Kits
- 1 x 5453 Frame Alignment Kit
- 1 x 5451 Grouping Frame Kit
- 4 x 5454 Panel Hook Kits

7-Panel Group Layouts

To create these kinds of groups with a minimum of 50mm spacing between shapes, you need to order:

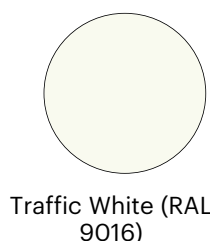


Accessories

- 5 x 5450 Deck Hanging Kits
- 3 x 5453 Frame Alignment Kits
- 2 x 5451 Grouping Frame Kits
- 7 x 5454 Panel Hook Kits

Panel / Item / Colour Selection

Shape	Traffic White
Square	SSSQ6FTWH
Convex	SSCE6FTWH
Concave	SSCA6FTWH
Circle	SSCI6FTWH
Hexagon	SSHE6FTWH
Trapezoid	SSTR6FTWH
Left Parallelogram	SSLP6FTWH
Right Parallelogram	SSRP6FTWH
Small Rectangle	SSSR6FTWH
Large Rectangle	SSLR6FTWH



Traffic White (RAL 9016)



Wood Effects



RAL Colours

For a full list of "Wood Effects" and "RAL Colour Palette", refer to the "SOUNDSCAPES Finishes" Brochure.

Design Consideration: SOUNDSCAPES Shapes maintain a natural sag that may be noticeable when installed 150mm or less apart. Deflection up to 3mm has been documented in some cases.

NOTE: See Installation Instructions for details on typical group configurations. CAD details showing various spacing options depending on panel shape are also available on the web at www.armstrongceilings.com.au. Installation will require field cutting of the grouping frames. Increasing the spacing between shapes may require additional hardware. If you need assistance identifying what and how many accessory kits are needed for your project, please contact your local Armstrong Ceilings representative.

Key Selection Attributes

- Enhance Acoustics in open areas
- Improves sound absorption and reduces reverberation time
- Aesthetically defines space
- Options of 10 flat "Shapes" panels and three sizes
- Install individually or in groups – create your own design
- Height adjustable
- Complete range of hanging accessories
- Sustainable design: May contribute points to Green Star™ Office Interiors IEQ10 – Internal Noise Levels (also applicable to other Green Star™ Tools)



Recycled Content

Physical Data

Material:	Glass fibre substrate Recycled content 80%	Acoustical Performance:	2.48 Sabins per panel (based on Square Panel) NRC equivalent of 0.95 (full ceiling application)
Surface Finish:	Durable scrim with factory-applied paint.	Fire Performance:	Conforms with NCC Spec. C1.10 as tested to AS 5637.1:2015 – Group 1, and ISO 5660 – Group 1 – S
Colour:	Traffic White – RAL 9016 (stock items), with Special RAL and Wood Effects Colours available.	Suspension System:	Variety of accessory kits available for individual or group suspension or direct attachment to plasterboard ceiling
Edge Details:	Wood Effects to match panel face	Installation:	Soundscapes® Canopies must remain in their cartons until ready to install. See installation instructions on website for details.
Panel Sizes:	1200x1200, 1200x1800, 1200x2400mm (nom)	Cleaning:	Use a clean, dry, soft white cloth to wipe off any dirt or fingerprints. Regular light dusting of the back side of the canopy is recommended.
Thickness:	30mm		
Humidity Resistance:	95% RH		
Light Reflectance:	90%		
Weight Substrate:	4 kg/m ² Square panel with hanging frame, 6.5 kg		

Wood Effects selection considerations

1. Wood Effects finishes above are indicative only and may vary from the actual product.
2. Wood Effects finishes are not recommended in areas where there are high levels of critical or glancing light.
3. Wood Effects finishes closely simulate a natural timber appearance and a variation can be expected in the wood pattern and shade between adjacent panels.



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