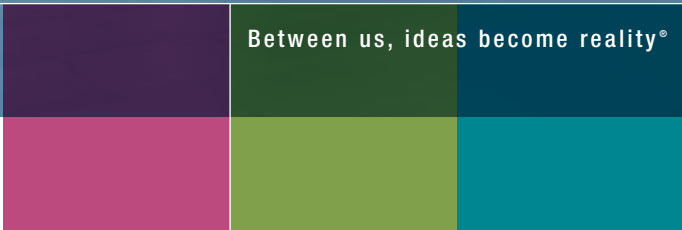




**CEILING** | SYSTEMS

**SOUNDSCAPES®** Shapes  
Acoustical Clouds

Between us, ideas become reality®





## Create, Accentuate, Define

**SOUNDSCAPES Shapes – Acoustical Clouds, 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.

Hospitality, retail

Offices

Reception areas, atriums

Open plenum areas

Transportation, airports

Exhibitions



# Individual Suspension

SOUNDSCAPES Shapes are extremely versatile and can be positioned individually also. Thanks to the flexibility of the product and installation it is possible to create your own personal designs and layouts.

# Engineered Group Configuration

Using a grouping frame allows a perfect alignment of multiple shapes close to each other. Armstrong provides grouping frames and accessories to ensure proper alignment of frames.

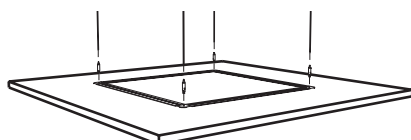
You can group panels in unlimited combinations. Grouping layout ideas are suggested on the page no. 6 of this brochure. It is also possible to create your very own personal design and layouts by using our online "Design Tool".



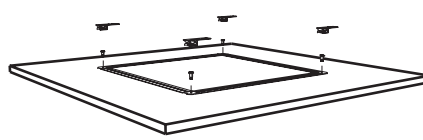
Thanks to the flexibility of the grouping system, you can make your ideas become reality.



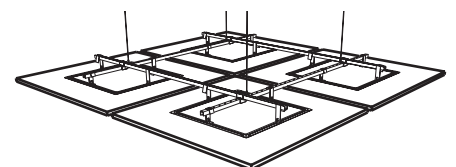
1. Individual Suspension



2. Individual Attachment to Drywall



3. Engineered Group Suspension





# 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.

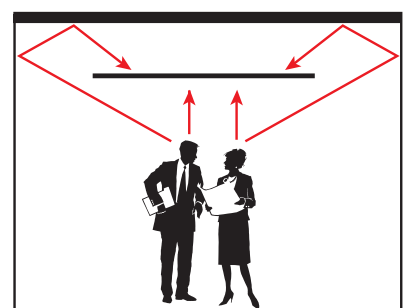
Depending on its size, each SOUNDSCAPES SHAPES provides between 1.61 and 5.05 Sabin of sound absorption per piece, calculated as an average of 500 – 4000 Hz (EN ISO 354).

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

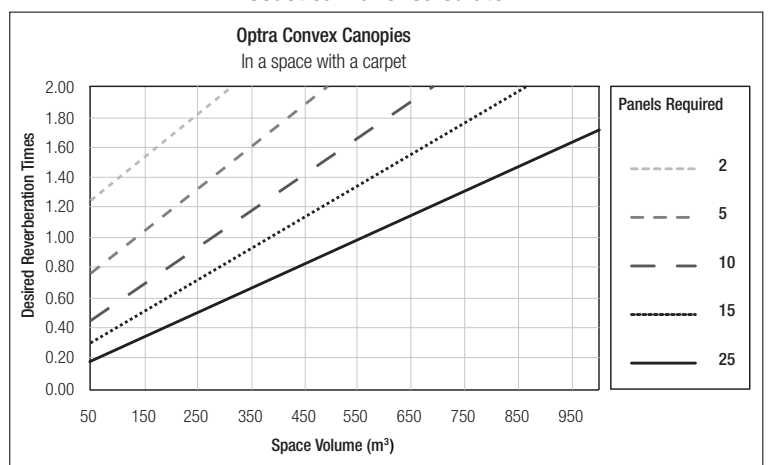
#### Meeting Room with:

- a volume of 100 m<sup>3</sup>
- 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

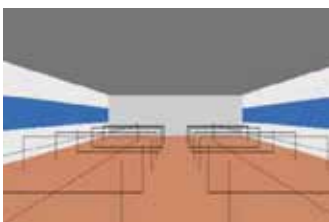
### Sound absorption – Sabin (metric)

Item nr.	Shape	Sabin* per item
BPCS5440	Square	2.48
BPCS5441	Convex	2.28
BPCS5442	Concave	1.94
BPCS5443	Circle	2.12
BPCS5444	Hexagon	1.61
BPCS5445	Trapezoid	2.15
BPCS5446	Left Parallelogram	2.15
BPCS5447	Right Parallelogram	2.15
BPCS5448	Small Rectangle	3.77
BPCS5449	Large Rectangle	5.05

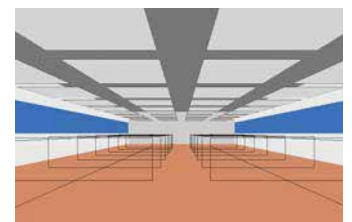
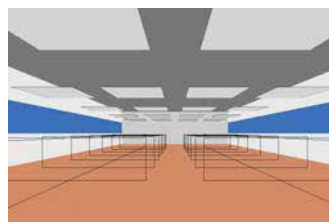
### Acoustical Panel Calculator



### EXPOSED STRUCTURE



### SOUNDSCAPES SHAPES



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
	Exposed Structure		78 Panels: Squares
Reverberation Time (sec)	3.4	1.3	0.8
RT Improvement (%)	ref	62%	76%
Sound Level Reduction (dB)	ref	- 3 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

**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.

# Restructure and Retrofit the Space

## Available Shapes



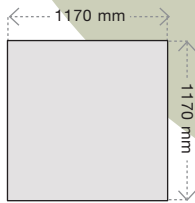
All SOUNDSCAPES Shapes are flat panels.

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.

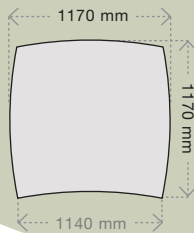
SOUNDSCAPES Shapes are very quick and easy to install, requiring no special tools and can easily be adapted to a variety of heights and angles.

**A variety of colours are available on request.**

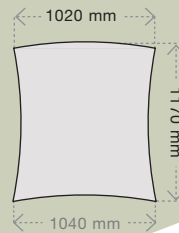
### Nominal 1200 x 1200 mm shapes



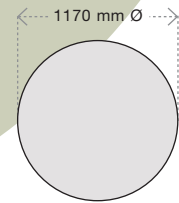
**Square (#5440)**



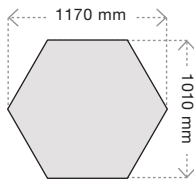
**Convex (#5441)**



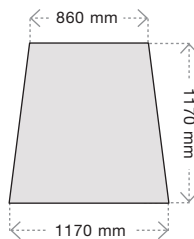
**Concave (#5442)**



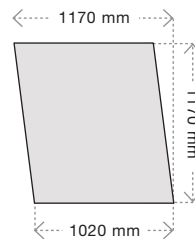
**Circle (#5443)**



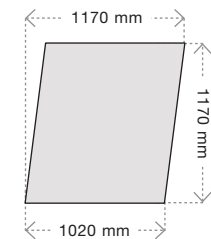
**Hexagon (#5444)**



**Trapezoid (#5445)**



**Left Parallelogram (#5446)**



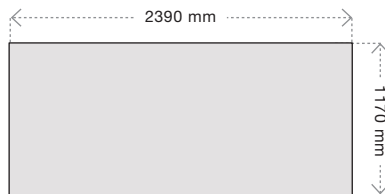
**Right Parallelogram (#5447)**

### Nominal 1200 x 1800 mm shapes



**Small Rectangle (#5448)**

### Nominal 1200 x 2400 mm shapes



**Large Rectangle (#5449)**

**COLOR SELECTION** - Due to printing limitations, shades may vary from actual product.



Traffic White  
RAL 9016



Light Ivory  
RAL 1015



Pale Green  
RAL 6021



Pastel Blue  
RAL 5024



Traffic Grey  
RAL 7042



Pale Brown  
RAL 8025

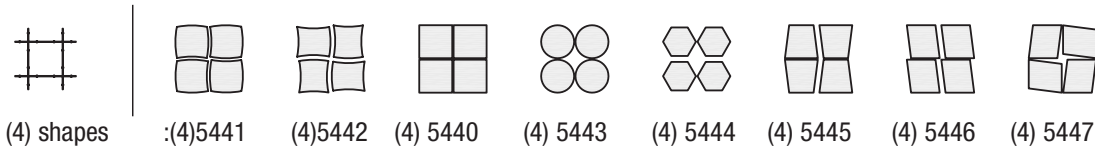


# Ways You Can Suspend SOUNDSCAPES Shapes in Groups

**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:

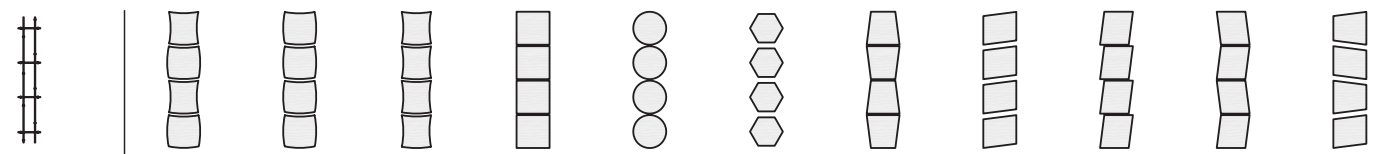


(4) shapes : (4)5441 (4)5442 (4) 5440 (4) 5443 (4) 5444 (4) 5445 (4) 5446 (4) 5447

- +
- (2) 5450 Deck Hanging Kits (1) 5453 Frame Alignment Kit
  - (1) 5451 Grouping Frames Kit (4) 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:

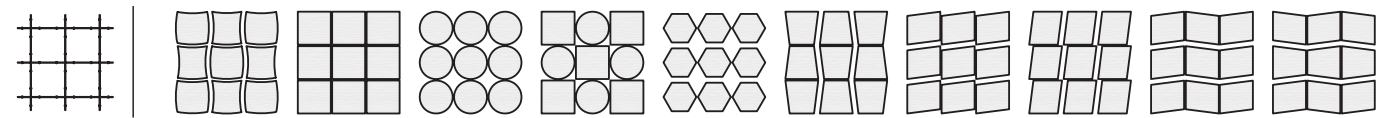


(4) shapes: (2) 5441 (4) 5441 (4) 5442 (4) 5440 (4) 5443 (4) 5444 (4) 5445 (4) 5447 (4) 5446 (2) 5446 (2) 5445  
 2) 5442 (2) 5447 (1) 5446 (1) 5447

- +
- (3) 5450 Deck Hanging Kits (1) 5452 Frame Splice Kit (2) 5453 Frame Alignment Kits
  - (2) 5451 Grouping Frame Kits (4) 5454 Panel Hook Kits

## 9-Panel Square Group Layouts

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

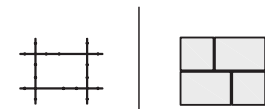


(9) shapes: (5) 5441 (9) 5440 (9) 5443 (5) 5440 (9) 5444 (9) 5445 (9) 5446 (9) 5447 (6) 5446 (3) 5445  
 (4) 5442 (4) 5443 (4) 5444 (3) 5447 (3) 5446 (3) 5446 (3) 5447

- +
- (5) 5450 Deck Hanging Kits (3) 5453 Frame Alignment Kits
  - (2) 5451 Grouping Frame Kits (9) 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:



(4) shapes: (2)5440 & (2) 5448

- +
- (3) 5450 Deck Hanging Kits (1) 5453 Frame Alignment Kit
  - (1) 5451 Grouping Frame Kit (4) 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:



(7) shapes: (7) 5444 or (7) 5443

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

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 and details on typical group configurations. CAD details showing various spacing options depending on panel shape are also available on request. 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 Armstrong representative.

# SOUNDSCAPES Shapes

## 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)

## Physical Data:

Material:	Glass fibre substrate
Surface Finish:	Durable scrim with factory-applied paint
Colour:	Optra White
Edge Detail:	Painted square edge
Sizes:	1200x1200, 1200x1800, 1200x2400mm (nom)
Thickness:	30mm
Humidity resistance:	95% RH
Light reflectance:	90%
Weight Substrate:	4kg/m <sup>2</sup> Square panel with hanging frame, 6.5kg
Acoustical performance:	2.48 Sabins per panel (based on Square Panel)
Fire Performance:	Conforms to BCA Spec. C1.10 and tested to AS/NZS 3837: 1998 – “Group 1”, AS/NZS 1530.3
Suspension System:	Variety of accessory kits available for individual or group suspension or direct attachment to plasterboard ceiling.
Installation Considerations:	Soundscapes Canopies must remain in their cartons until ready to install. See installation instructions on website for details
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.

## Design Tool:



Use our online “Design Tool” to create your very own combination and patterns.



[www.armstrong.co.in/commercial\\_ceilings](http://www.armstrong.co.in/commercial_ceilings)



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