



SOUNDSCAPES®
SHAPES



Inspiring Great Spaces®

Armstrong®
CEILING SOLUTIONS



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.



Hospitality, retail

Offices

Reception areas, atriums

Open plenum areas

Transportation, airports

Exhibitions

RESTRUCTURE AND RETROFIT THE SPACE

Available Shapes



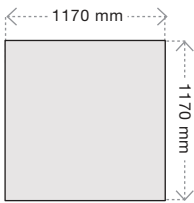
All SOUNDSCAPES Shapes are flat panels.

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.

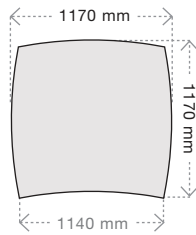
SOUNDSCAPES Shapes are very quick and easy to install, requiring no special tools and can easily be adapted to a variety of heights and angles.

A variety of colours are available on request.

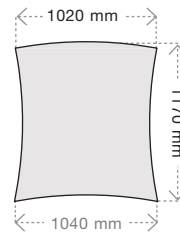
Nominal 1200 x 1200 mm shapes



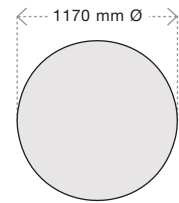
Square



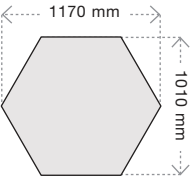
Convex



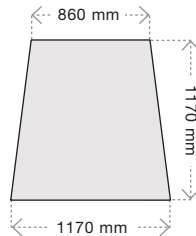
Concave



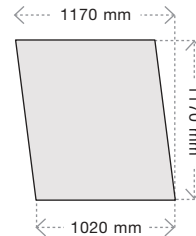
Circle



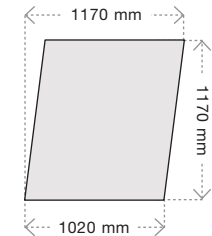
Hexagon



Trapezoid

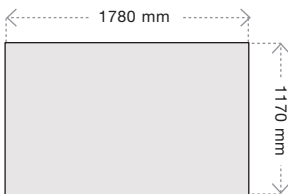


Left Parallelogram



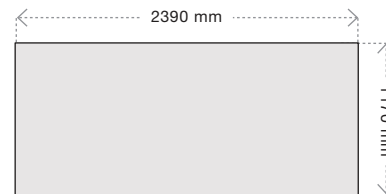
Right Parallelogram

Nominal 1200 x 1800 mm shapes



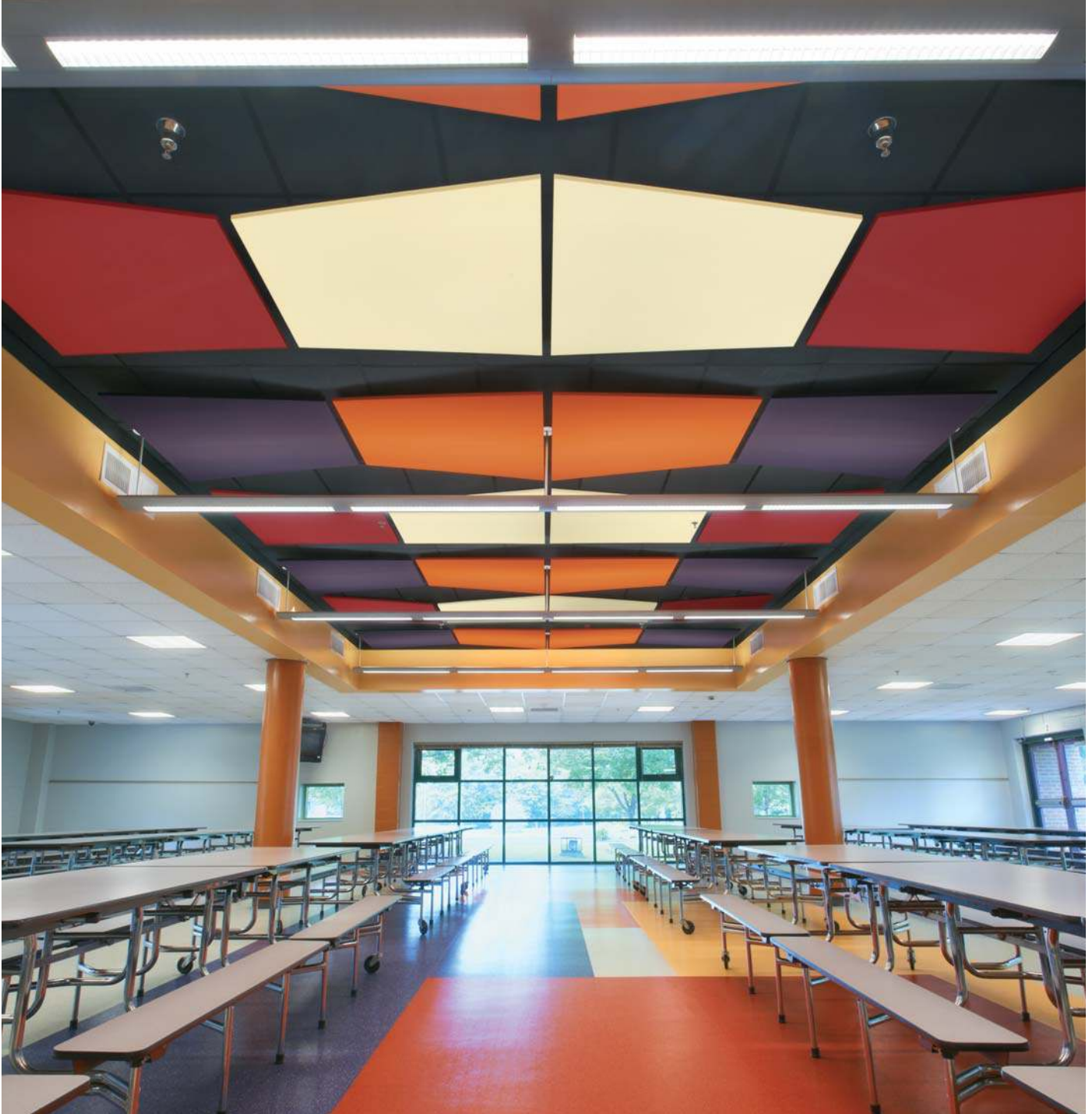
Small Rectangle

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.

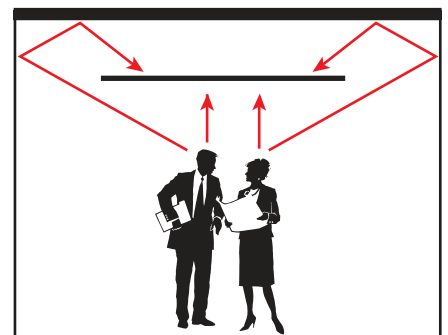
Depending on its size, each SOUNDSCAPES Shapes provides between 1.61 and 5.05 Sabin of sound absorption per piece, calculated as an average of 500 – 4000 Hz (EN ISO 354).

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



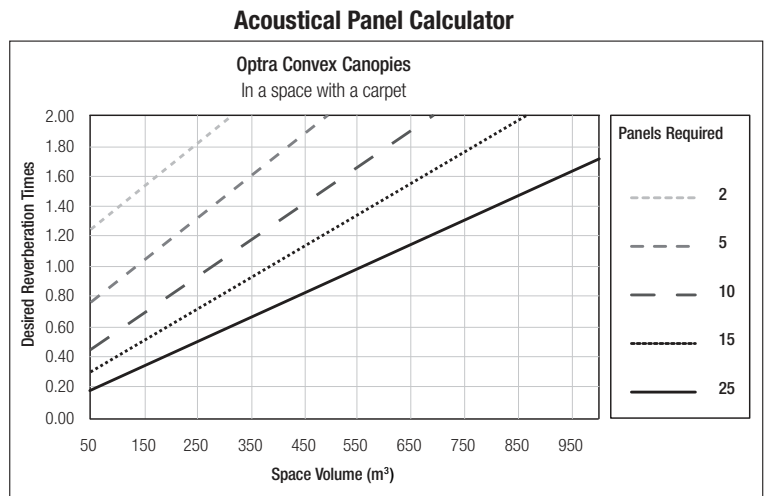


For SOUNDSCAPES® Shapes Convex

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

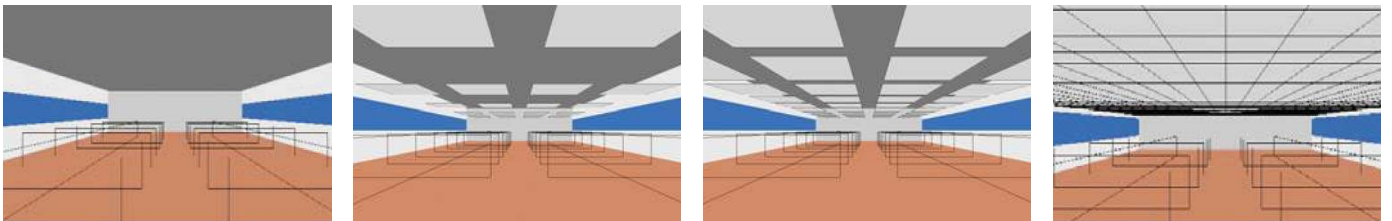


* Average of 500 – 4000Hz in accordance with EN ISO 354-2003. These values may vary depending on the No. of units, spacing and suspended distance of units.

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
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

SOUNDSCAPES® 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.



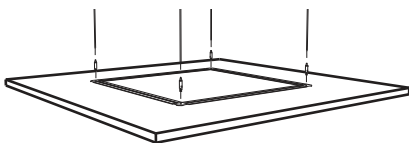
GROUP CONFIGURATION

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 SOUNDSCAPES Shapes technical brochure. It is also possible to create your own personal designs and layouts.

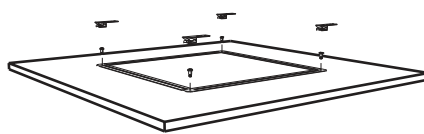
Thanks to the flexibility of the grouping system, you can make your ideas become reality.

1. Individual Suspension



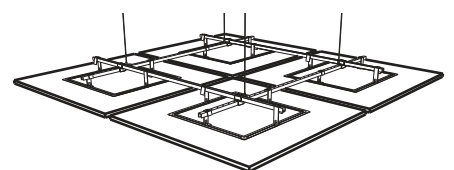
- Individual suspension requires:
- (2) Deck Hanging Kits (item 5450) for every 1200x1200 / 1200x1800mm Shapes panel
 - (3) Deck Hanging Kits (item 5450) for 2400x1200mm Shapes panel

2. Individual Attachment to Drywall



- 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

3. Group Suspension



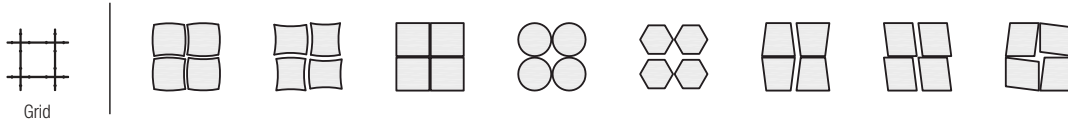
See following page for components

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:

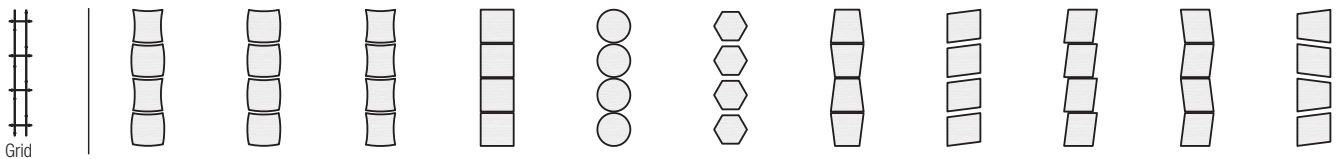


Accessories

- 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:

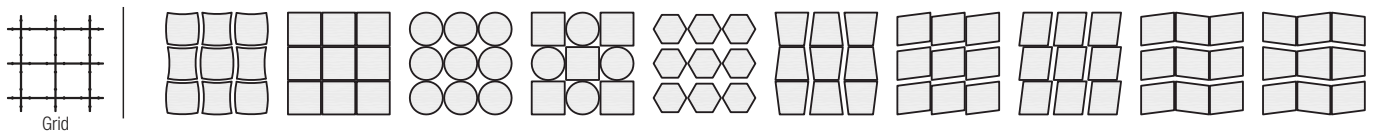


Accessories

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

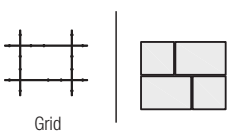


Accessories

- 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 / Colour Selection

Shape	Traffic White	Light Ivory	Pale Green	Pastel Blue	Traffic Grey	Pale Brown
Square	SSSQ6FTWH	SSSQ7FLIV	SSSQ7FPGR	SSSQ7FPBL	SSSQ7FTGR	SSSQ7FPBR
Convex	SSCE6FTWH	SSCE7FLIV	SSCE7FPGR	SSCE7FPBL	SSCE7FTGR	SSCE7FPBR
Concave	SSCA6FTWH	SSCA7FLIV	SSCA7FPGR	SSCA7FPBL	SSCA7FTGR	SSCA7FPBR
Circle	SSCI6FTWH	SSCI7FLIV	SSCI7FPGR	SSCI7FPBL	SSCI7FTGR	SSCI7FPBR
Hexagon	SSHE6FTWH	SSHE7FLIV	SSHE7FPGR	SSHE7FPBL	SSHE7FTGR	SSHE7FPBR
Trapezoid	SSTR6FTWH	SSTR7FLIV	SSTR7FPGR	SSTR7FPBL	SSTR7FTGR	SSTR7FPBR
Left Parallelogram	SSLP6FTWH	SSLP7FLIV	SSLP7FPGR	SSLP7FPBL	SSLP7FTGR	SSLP7FPBR
Right Parallelogram	SSRP6FTWH	SSRP7FLIV	SSRP7FPGR	SSRP7FPBL	SSRP7FTGR	SSRP7FPBR
Small Rectangle	SSSR6FTWH	SSSR7FLIV	SSSR7FPGR	SSSR7FPBL	SSSR7FTGR	SSSR7FPBR
Large Rectangle	SSLR6FTWH	SSLR7FLIV	SSLR7FPGR	SSLR7FPBL	SSLR7FTGR	SSLR7FPBR

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)



PHYSICAL DATA

Material:	Glass fibre substrate Recycled Content 80%
Surface Finish:	Durable scrim with factory-applied paint
Colour:	6 Standard colours, Traffic White (Stock). Special RAL colours available.
Edge Detail:	Painted square edge
Sizes:	1200x1200, 1200x1800, 1200x2400mm (nom)
Thickness:	30mm
Humidity resistance:	95% RH
Light reflectance:	90%
Weight Substrate:	4kg/m ² Square panel with hanging frame, 6.5kg
Acoustical performance:	2.48 Sabins per panel (based on Square Panel) NRC equivalent of 0.95 (full ceiling application)
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.



green building council australia

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