SOUNDSCAPES® Shapes
Acoustical Clouds and Walls

Inspiring Great Spaces™

(Armstrong®

CEILING & WALL SYSTEMS

SOUNDSCAPES® Shapes

Acoustical Clouds

SoundScapes® Shapes panels in Pale Lemon

Acoustics delivered via playful shapes and colors in standard and custom options.
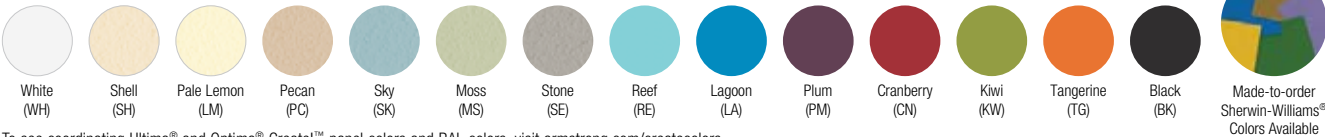
KEY SELECTION ATTRIBUTES

- Enhance acoustics in open areas
- Aesthetically define spaces
- Standard flat panels in multiple sizes and shapes; custom shapes available
- Adjustable to various heights and angles
- 360º panel finishing capability available
- Quick and easy to install from a deck, through a ceiling, directly attached to drywall, on a standard suspension system, or on a wall
- Metaphors® Coffers, Create!™ ceiling panels, Infusions® Canopies, lay-in panels, partitions, walls, and Wings available in coordinating colors

See more photos at:
armstrong.com/photogallery
SEARCH: soundscapes shapes

COLORS   Due to printing limitations, shade may vary from actual product.

White (WH)	Shell (SH)	Pale Lemon (LM)
Pecan (PC)	Sky (SK)	Moss (MS)
Stone (SE)	Reef (RE)	Lagoon (LA)
Plum (PM)	Cranberry (CN)	Kiwi (KW)
Tangerine (TG)	Black (BK)	Made-to-order Sherwin-Williams® Colors Available

To see coordinating Ultima® and Optima® Create!™ panel colors and RAL colors, visit armstrong.com/createcolors.
Custom colors are available with a Sherwin-Williams 4-digit color code from the Duration or Harmony flat interior paint families (Code SW _ _ _ _).

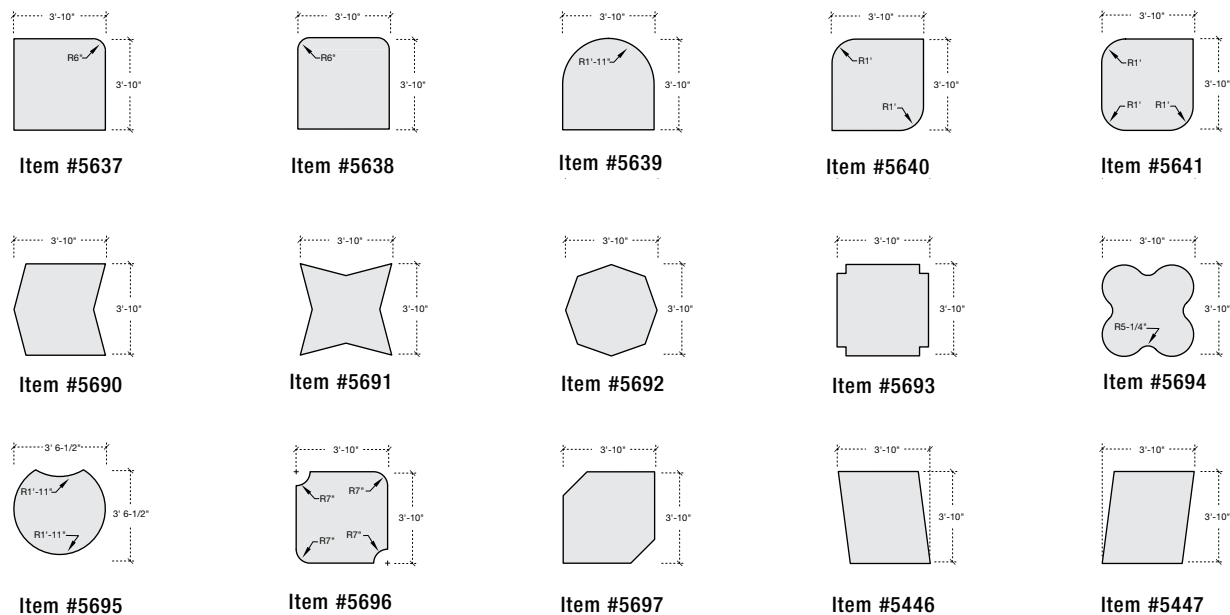## PANEL OPTIONS   (shown in finish view from below ceiling)

Item Number♦	Description/ Dimensions (Inches)
5440_ _	Square 48 x 48 x 7/8" (Nominal)
5441_ _	Convex 48 x 48 x 7/8" (Nominal)
5442_ _	Concave 48 x 48 x 7/8" (Nominal)
5443_ _	Circle 48 x 48 x 7/8" (Nominal)

Item Number♦	Description/ Dimensions (Inches)
5444_ _	Hexagon 48 x 48 x 7/8" (Nominal)
5445_ _	Trapezoid 48 x 48 x 7/8" (Nominal)
5635_ _	Square – 6" Radius cut corner 48 x 48 x 7/8" (Nominal)

Item Number♦	Description/ Dimensions (Inches)
5636_ _	Square – 6" Square cut corner 48 x 48 x 7/8" (Nominal)
5448_ _	Small Rectangle 48 x 72 x 7/8" (Nominal)
5449_ _	Large Rectangle 48 x 96 x 7/8" (Nominal)

♦ NOTE: Add 2-letter color suffix when specifying or ordering (e.g. 5440 W H for Square Panel in White). Concealed hardware with 360° finishing available on all Shapes except Hexagon.

Custom Panel Selection Shown in finish view from below ceiling

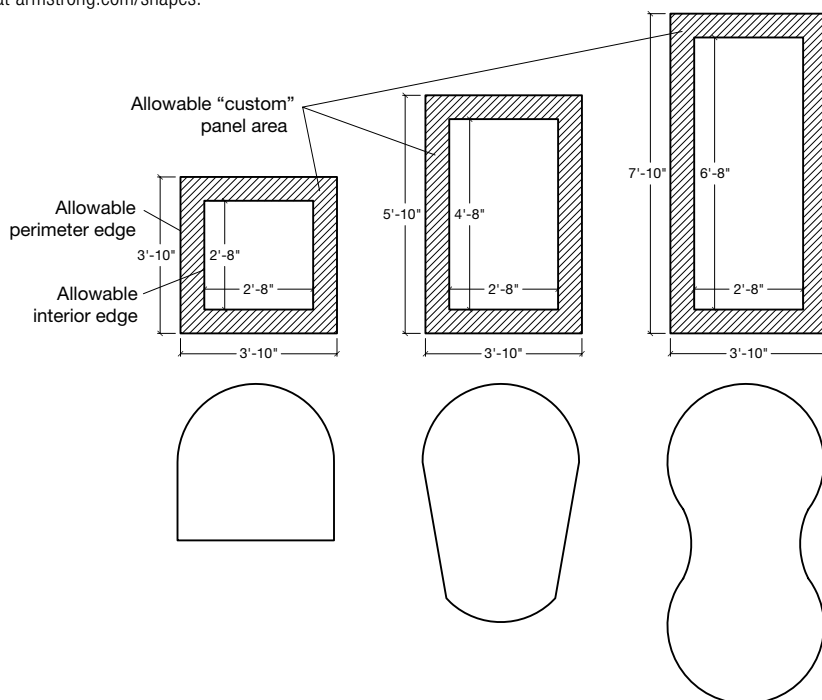|				
3'-10" / R6" / 3'-10" **Item #5637**	3'-10" / R6" / 3'-10" **Item #5638**	3'-10" / R1'-11" / 3'-10" **Item #5639**	3'-10" / R1' / 3'-10" R1' **Item #5640**	3'-10" / R1' / 3'-10" R1' R1' **Item #5641**
3'-10" / 3'-10" **Item #5690**	3'-10" / 3'-10" **Item #5691**	3'-10" / 3'-10" **Item #5692**	3'-10" / 3'-10" **Item #5693**	3'-10" / R5-1/4" / 3'-10" **Item #5694**
3' 6-1/2" / R1'-11" / 3' 6-1/2" R1'-11" **Item #5695**	3'-10" / R7" R7" / 3'-10" R7" R7" **Item #5696**	3'-10" / 3'-10" **Item #5697**	3'-10" / 3'-10" **Item #5446**	3'-10" / 3'-10" **Item #5447**

Custom Shapes

Now, you can create your own shapes!

Simply carve your creation out of the allowable custom panel area (interior edge to perimeter edge) as instructed below and send a CAD file to Architectural Specialties at 1 877 ARMSTRONG and select options 1-1-4. The drawings below are also available online at armstrong.com/shapes.

SoundScapes® Shapes custom panels in custom colors
Carmen & David's Creamery, Lancaster, PA

Allowable "custom" panel area

Allowable perimeter edge

Allowable interior edge

3'-10"   2'-8"   2'-8"   3'-10"

5'-10"   4'-8"   2'-8"   3'-10"

7'-10"   6'-8"   2'-8"   3'-10"

Ways You Can Suspend SoundScapes® Shapes in Groups

Standard Grouping Ideas To create standard groups with a minimum of 2" spacing between shapes, order the kits listed below each group.

4-Panel Square Group Layouts

(4) shapes: (4) 5441   (4) 5442   (4) 5440   (4) 5443   (4) 5444   (4) 5445   (4) 5636   (4) 5636

+ (2) 5450 Deck Hanging Kits   (1) 5451 Grouping Frames Kit   (1) 5453 Frame Alignment Kit   (4) 5454 Panel Hook Kits

4-Panel Linear Group Layouts

(4) shapes: (2) 5441   (4) 5441   (4) 5442   (4) 5440   (4) 5443   (4) 5444   (4) 5445   (4) 5635
            (2) 5442

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

9-Panel Square Group Layouts

(9) shapes: (5) 5441   (9) 5440   (9) 5443   (5) 5440   (9) 5444   (9) 5445   (9) 5635   (4) 5636
            (4) 5442   (4) 5443   (5) 5440

+ (5) 5450 Deck Hanging Kits   (2) 5451 Grouping Frames Kits   (3) 5453 Frame Alignment Kits   (9) 5454 Panel Hook Kits

4-Panel Rectangular Layout

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

+ (3) 5450 Deck Hanging Kits   (1) 5453 Frame Alignment Kit
  (1) 5451 Grouping Frames Kit   (4) 5454 Panel Hook Kits

7-Panel Group Layouts

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

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

Custom Grouping Ideas

4-Panel Square Group Layouts

(4) 5637   (4) 5640   (4) 5691   (4) 5692   (4) 5693   (4) 5694   (4) 5696

+ (2) 5450 Deck Hanging Kits   (1) 5451 Grouping Frames Kit   (1) 5453 Frame Alignment Kit   (4) 5454 Panel Hook Kits

4-Panel Linear Group Layouts

(4) 5638   (4) 5639   (4) 5690   (4) 5693   (4) 5695   (4) 5697

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

9-Panel Square Group Layouts

(9) 5690   (9) 5691   (9) 5697

+ (5) 5450 Deck Hanging Kits   (2) 5451 Grouping Frames Kits
  (3) 5453 Frame Alignment Kits   (9) 5454 Panel Hook Kits

NOTE: For more information on group configurations and spacing options, visit armstrong.com/shapes or see installation instructions BPLA-297302. CAD details showing various spacing options depending on panel shape are also available on the web. If you need assistance identifying what and how many accessory kits are needed for your project, please contact TechLine℠ customer support at 1 877 ARMSTRONG.

Acoustical Performance

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.

Total acoustical absorption for a suspended ceiling is calculated by multiplying the exposed surface area by the material NRC while "space absorbers" are directly measured. SoundScapes® Shapes Acoustical Clouds provide greater sound absorption than a continuous ceiling of the same surface area because the sound is absorbed from both the front and back surfaces.

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

Factors that may affect the installed acoustical performance relative to the published results are:

– Size and shape of cloud
– Number of clouds and their layout
– Suspension distance below exposed deck or finished ceiling
– Location and vertical or horizontal layering of clouds
– Material selection (fiberglass clouds or mineral fiber canopies)

SoundScapes® Shapes Convex and Concave panels in White
RPA Design, Charlotte, NC
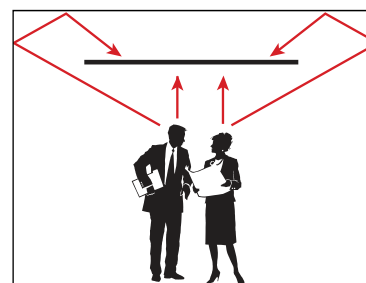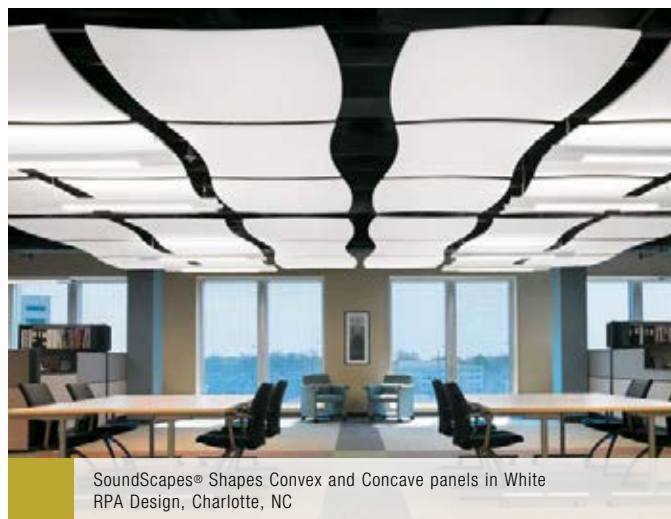
EXPOSED STRUCTURE

SOUNDSCAPES SHAPES
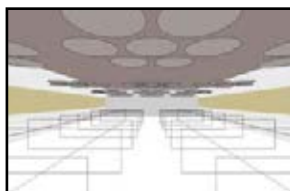
FULL ULTIMA® CEILING
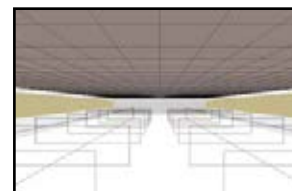
5,000 SF Exposed Structure (50' x 100'), 15' to deck, drywall with windows on two sides, commercial carpet

Ceiling	No Ceiling/ Exposed Structure	SoundScapes (25% of ceiling)		SoundScapes (50% of ceiling)		Full Ultima Ceiling
		52 SoundScapes Canopies*	105 SoundScapes Shapes-Circles	100 SoundScapes Canopies*	217 SoundScapes Shapes-Circles	
Reverberation Time (RT)	3.4s	1.6s	1.4s	1.0s	0.9s	0.5s
RT Improvement	ref+	53%	+58%	+70%	+74%	+85%
Background Noise Reduction	ref	-1.6 dB	-2.0 dB	-2.6 dB	-3.0 dB	-5.0 dB
Total Sabin for Coverage Area	none	1248 sf x 1.25 = 1560	1216 sf x 1.49 = 1812	2400 sf x 1.25 = 3000	2515 sf x 1.49 = 3747	5000 sf x 0.70 = 3500

* For product information on SoundScapes Acoustical Canopies, see CS-3691 or visit armstrong.com/soundscapes. You can calculate the acoustical difference that SoundScapes make in your space by using our online Reverb Calculator Tool at armstrong.com/reverbtool.

NOTE: Results based on acoustical testing of White SoundScapes Shapes Circle panels suspended 48" below the deck. The absorption is approximately 10% lower for color panels and 20% lower for direct attachment to drywall.
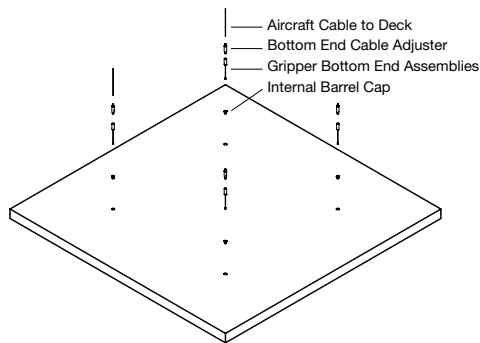
Installation Options

1. Individual Suspension

Exposed Hardware

- Aircraft Cable to Deck
- Bottom End Cable Adjuster
- Corner Bracket
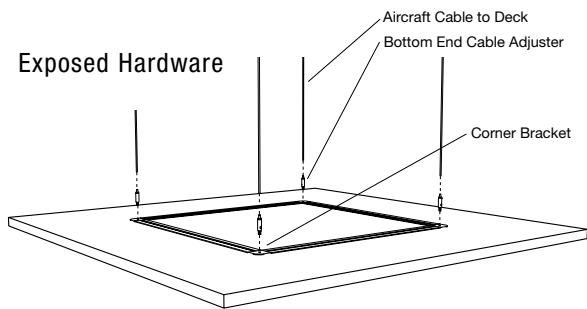
With individual suspension to the deck, you need the following for each type of shape:

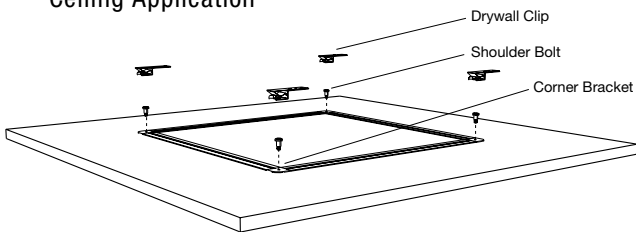| Nominal 4' x 4' and 4' x 6' Shapes |
| --- |
| (1) Shape (Items 5440 through 5448 and 5635, 5636) |
| (2) Deck Hanging Kits (Item 5450) |
| **Nominal 4' x 8' Shape** |
| (1) Large Rectangle (Item 5449) |
| (3) Deck Hanging Kits (Item 5450) |

Concealed Hardware with 360º Finishing

- Aircraft Cable to Deck
- Bottom End Cable Adjuster
- Gripper Bottom End Assemblies
- Internal Barrel Cap

* Panels with 360º finishing come with suspension hardware included (order through Architectural Specialties – contact information and available Shapes on page 8).

2. Individual Attachment to Drywall (or a solid surface)

Ceiling Application

- Drywall Clip
- Shoulder Bolt
- Corner Bracket

Wall Application

- Shoulder Bolt
- Wall Bracket
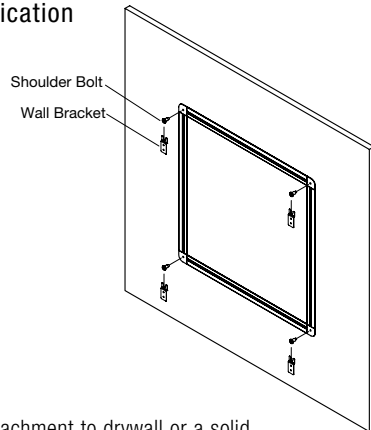
With individual attachment to drywall or a solid surface, you need the following for each type of shape:

Nominal 4' x 4' and 4' x 6' Shapes
(1) Shape (Items 5440 through 5448 and 5635, 5636)
(2) Drywall Hanging Kits (Item 5455) for a ceiling installation (1) Wall Hanging Kit (Item 5588) for a 4' x 4' wall panel (2) Wall Hanging Kits (Item 5588) for a 4' x 6' wall panel
Nominal 4' x 8' Shape
(1) Large Rectangle (Item 5449)
(3) Drywall Hanging Kits (Item 5455) for a ceiling installation (2) Wall Hanging Kits (Item 5588) for a wall installation

Installation View

Custom Square in White with 360º finishing (hardware included)

Installation View

Items 5440 and 5448 in Tangerine (upper wall and ceiling)

NOTE: See installation instructions BPLA-297302 for details. If you need assistance identifying what and how many accessory kits are needed for your project, please contact TechLine℠ customer support at 1 877 ARMSTRONG.

Installation Options

3. Group Suspension

Nominal 4' x 4' Shapes
(4) Shapes (Items 5440 through 5447 and 5635, 5636)
(2) Deck Hanging Kits (Item 5450)
(1) Grouping Frames Kit (Item 5451 _ _)
(1) Frame Alignment Kit (Item 5453)
(4) Panel Hook Kits (Item 5454 _ _)

Aircraft Cable to Deck

Frame Alignment Spacer

Group Suspension Frame
(field cut)

Panel Hooks

Bottom End Cable Adjuster
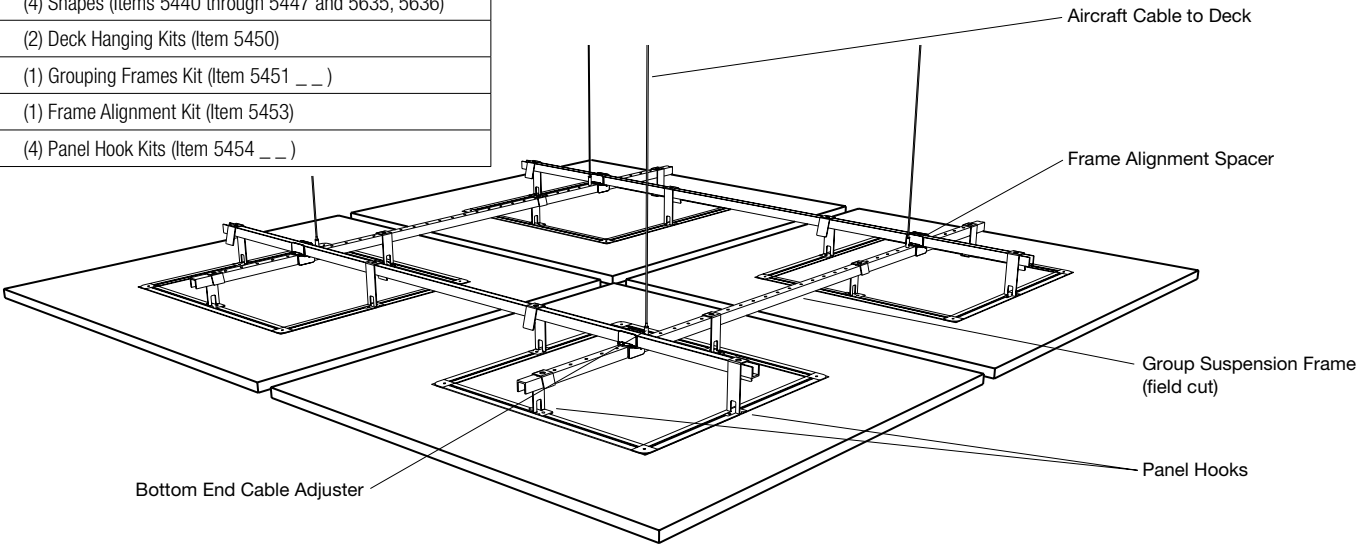
Installation Views

Items 5441 and 5442 in White
9 panel square group layout
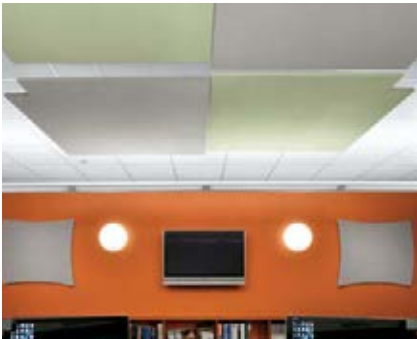
Item 5636 in Stone and Moss (on ceiling)
4 panel square group layout
with multi-plane hanging kit

Items 5441 and 5442 in White and Moss
9 panel square group layouts

Hundreds of ways to configure SoundScapes® Shapes panels

Individual Suspension

(3) Items 5443 in White
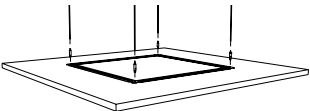
**Individual Attachment to
Drywall or Solid Surface**

(2) Items 5440 and 5448 in Tangerine
(upper wall and ceiling)

Group Suspension

Items 5441 and 5442 in White

ACCESSORY KITS

Deck Hanging Kit (5450)
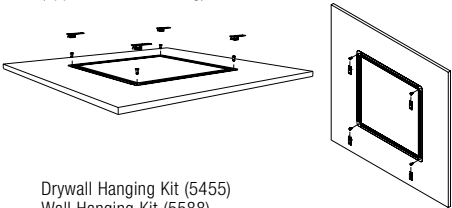
Drywall Hanging Kit (5455)
Wall Hanging Kit (5588)
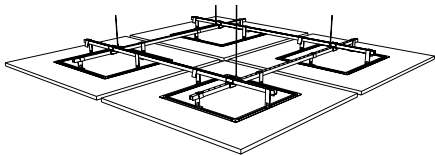
Deck Hanging Kit (5450)   Frame Alignment Kit (5453)
Grouping Frames Kit (5451 _ _) Panel Hook Kit (5454 _ _)

NOTE: See installation instructions BPLA-297302 for details on typical group configurations. CAD details are also available on the web at armstrong.com/shapes. Installation will require field cutting of the grouping frames. Please note: 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 TechLine℠ customer support at 1 877 ARMSTRONG.

71% RECYCLED CONTENT

Calculate LEED contribution at armstrong.com/greengenie

LEED®

energy management | construction waste mgmt | regional materials | design for flexibility | EPD | recyclable/ extended producer resp. | biobased materials | recycled content | sourcing of raw materials | material ingredient reporting | low emitting/ materials | lighting quality | acoustics

▲ LOCATION DEPENDENT

Accessory Kits – Applications always require more than one kit.
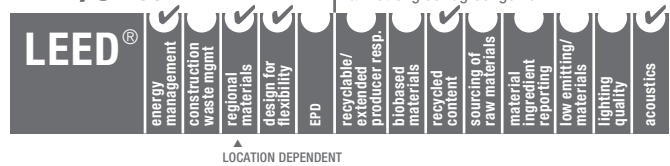
ITEM #   KIT CONTENTS

5450 – Deck Hanging Kit

Allows for suspending individual shapes or grouping frames from deck and bottom end adjustment of height at panel or frame level.

(2) gripper structure anchors
(2) gripper structure caps
(2) 8' aircraft cables
(2) bottom end cable adjusters
(2) nuts with washers

5438 – Angled Hanging Kit (10° maximum angle)

For use when hanging panels at different angles. Extends from the end of Deck Hanging Kit (5450).

(2) angled hanging cables

7121 – Angled Hanging Kit (60° maximum angle)

For use when hanging panels at different angles. Extends from the end of Deck Hanging Kit (5450).

(2) angled hanging cables

625530 – Extended Hanging Cables

For use with deck hanging kit when longer cables are needed.

(4) 30' aircraft cables

7006 – Escutcheon Kit

Used when hanging panels below an existing ceiling.

(2) collars with setscrews
(2) 2" escutcheons
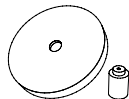
5451 _ _* – Grouping Frames Kit

Suspension frames used to group panels together.

(4) suspension frames,
    12' long, Black (BL) or White (WH)
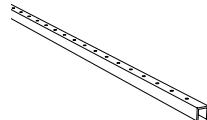
5452 _ _* – Frame Splice Kit

Connects group suspension frames for longer runs (> 12 feet).

(2) group frame connectors,
    10" long, Black (BL) or White (WH)
(4) bolts with washers
(4) nuts

ITEM #   KIT CONTENTS

5453 – Frame Alignment Kit

For use with group suspension frames.

(4) frame alignment spacers, clear plastic
(4) bolts
(4) nuts with washers

5454 _ _* – Panel Hook Kit

For use with group frames (one kit per all panels except item 5449, Large Rectangle, which requires two kits)

(2) 4-1/2" high panel hooks, Black (BL) or White (WH)

(2) 3-1/2" high panel hooks, Black (BL) or White (WH)
(8) bolts

Multi-plane Hanging Kits

For use when hanging panels at heights below Panel Hook Kit (5454).

5629 – 1" Drop Hook Kit
(2) 4-1/2" hooks
(2) 5-1/2" hooks
(8) screws
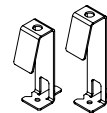
5630 – 2" Drop Hook Kit
(2) 5-1/2" hooks
(2) 6-1/2" hooks
(8) screws

5631 – 3" Drop Hook Kit
(2) 6-1/2" hooks
(2) 7-1/2" hooks
(8) screws
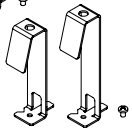
5455 – Drywall Ceiling Hanging Kit

For individual panel attachment to drywall.

(2) drywall clip assemblies
(2) shoulder bolts
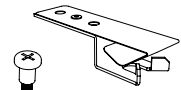
5588 – Wall Hanging Kit

For individual panel attachment to a wall.

(4) clip assemblies
(4) shoulder bolts
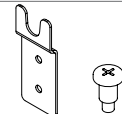
5632 – Grid Hook Kit

For hanging individual panels from a standard suspension system.

(4) hooks
(8) screws

NOTE: Accessory kit hardware is attached to panels via the metal extrusion or corner brackets on the back of each panel. The diagram on the right shows the location of extrusions and corner brackets in the back of a nominal 4' x 4' panel. See installation instructions BPLA-297302 for more details.

Corner Brackets

Metal Extrusion

If you need assistance identifying what and how many accessory kits are needed for your project, please contact TechLine customer support at 1 877 ARMSTRONG.

* Indicate desired color using two-digit color code when ordering;
  BL = Black; WH = White

PHYSICAL DATA

Material
7/8" thick fiberglass with DuraBrite® scrim on face and sides or custom 1-3/4" thick fiberglass with DuraBrite scrim on all sides (360° finishing). To order custom panels, contact TechLine℠ customer support at 1 877 ARMSTRONG.

Surface Finish
DuraBrite scrim with factory-applied paint on face and sides. Standard White has energy-saving, high light-reflective finish (LR 0.90). Back of panel is unfinished with embedded metal extrusions.

Fire Performance
SoundScapes® Shapes panel material is ASTM E84 Class A: Flame Spread 25 or under and Smoke Developed 50 or less.

CAN/ULC S102 surface burning characteristics. Flame Spread Rating 25 or less. Smoke Developed Classification 50 or less.

SoundScapes Shapes clouds, as with other architectural features located in the ceiling plane, may obstruct or skew the existing or planned fire sprinkler water distribution pattern, or possibly delay the activation of the fire sprinkler or fire detection system. Consult a fire protection engineer, NFPA 13, and local codes for guidance

on the proper installation techniques where fire detection or suppression systems are present.

ASTM E1264 Classification
Type XII, Form 2, Pattern E

High Recycled Content
Contains greater than 50% total recycled content. Total recycled content based on product composition of post-consumer and pre-consumer (post-industrial) recycled content per FTC guidelines.

Acoustical Performance
1.18 Sabins per square foot or 66% more sound absorption than the same square footage of NRC 0.90 continuous ceilings. Color shapes have slightly reduced acoustical performance.

Design Considerations
SoundScapes Shapes clouds maintain a natural sag that may not be noticeable when installed 6" or less apart. Deflection up to 1/8" has been documented in some cases.

Shapes available with 360° finishing for use in areas where panel back is exposed (can only be installed with included individual suspension).

Special care in installation and handling must be taken with color shapes to avoid surface damage to the paint finish.

Custom colors are available. Contact TechLine customer support with a Sherwin-Williams® color code from the Durations or Harmony flat interior paint families (Code SW _ _ _ _).

Custom shapes are available by providing a custom shape drawing within guidelines and sending to TechLine customer support. Call 1 877 ARMSTRONG for assistance.

Seismic Restraint
Refer to ASCE 7-10, Section 13.5 Architectural Components for seismic requirements. Section 13.5, item 2 refers to 13.2.3 Consequential Damage.

Suspension Systems
SoundScapes Shapes clouds are pre-assembled with metal extrusions in the back of the panels. Standard accessory kits facilitate quick and easy installation from the deck, through a ceiling, or directly attached to drywall. See Installation Instructions BPLA-297302 for installation details.

Warranty
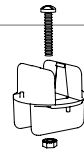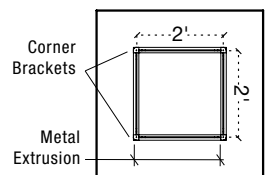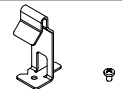Details at armstrong.com/warranty

Panel Weight
0.63 lbs/SF

TechLine℠ / 1 877 ARMSTRONG
1 877 276 7876
armstrong.com/shapes
BPCS-3867-1115

Armstrong®