

**CEILING&WALL** | SYSTEMS

Between us, ideas become reality™

**SOUNDSCAPES® Shapes**  
Acoustical Clouds and Walls



# SOUNDSCAPES® Shapes

## Acoustical Clouds and Walls



SoundScapes Shapes Hexagon panels in Pale Lemon; Secchia Center – Michigan State University College of Human Medicine, Grand Rapids, MI

### Key Selection Attributes

- Enhance acoustics in open areas
- Aesthetically define spaces
- Ten standard flat panels in multiple sizes and shapes, including two new shapes; Custom shapes available
- Fourteen standard colors and Custom colors available to coordinate with Armstrong and other interior finishes, including Metaphors® Coffers infill panels and Infusions® Canopies, Lay-in Panels, Partitions, Walls, and Wings
- 360° panel finishing capability now available; contact Architectural Specialties
- Install individually or in groups to create your own unique design
- Full line of hanging kits and accessories
- Adjustable to various heights and angles
- Quick and easy to install from a deck, through a ceiling, directly attached to drywall, on a standard suspension system, or on a wall
- Create ceiling-to-wall transitions with coordinating SoundScapes, Infusions®, or Soundsoak® panels and colors
- Engineered and tested for use in seismic areas
- For more information about Custom shapes and colors, contact Architectural Specialties at 1 877 ARMSTRONG, select options 1-1-4

### Color Selection

Due to printing limitations, shades may vary from actual product.

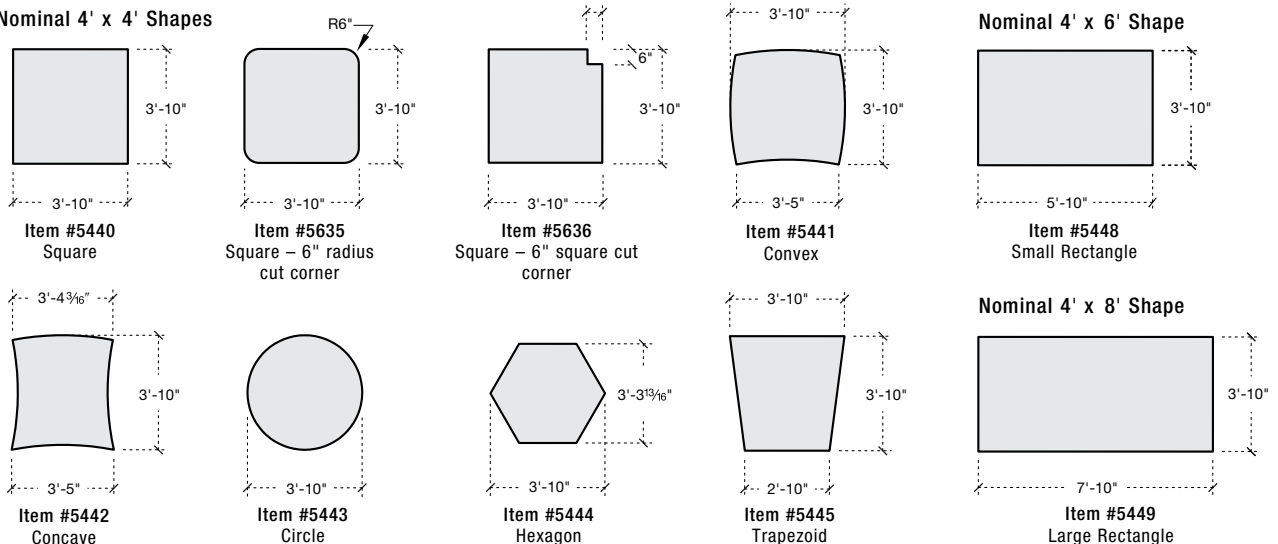


NOTE: Special care in installation and handling must be taken with color shapes to avoid surface damage to the paint finish. Custom colors are available. Contact Architectural Specialties with a Sherwin-Williams 4-digit color code from the Durations or Harmony flat interior paint families (Code SW \_ \_ \_ \_)

### Panel Selection

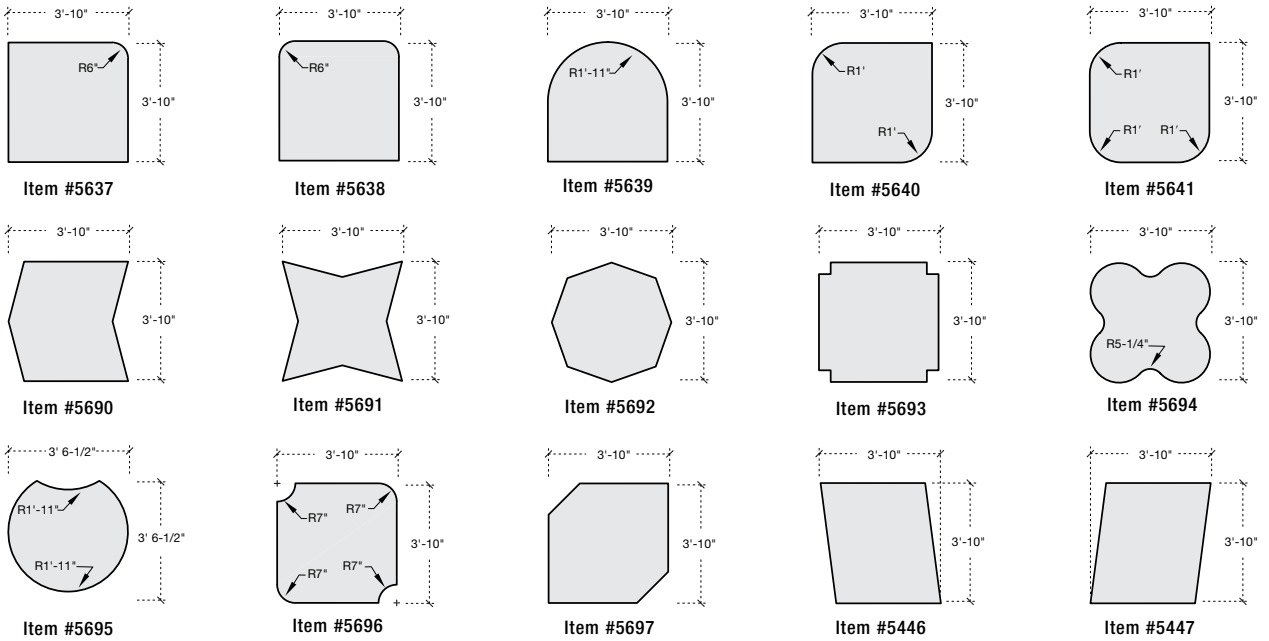
Shown in finish view from below ceiling

#### Nominal 4' x 4' Shapes



NOTE: All shapes above, except Hexagon, are available with 360° finishing. See pages 5 and 8 for details.

**Custom Panel Selection** Shown in finish view from below ceiling



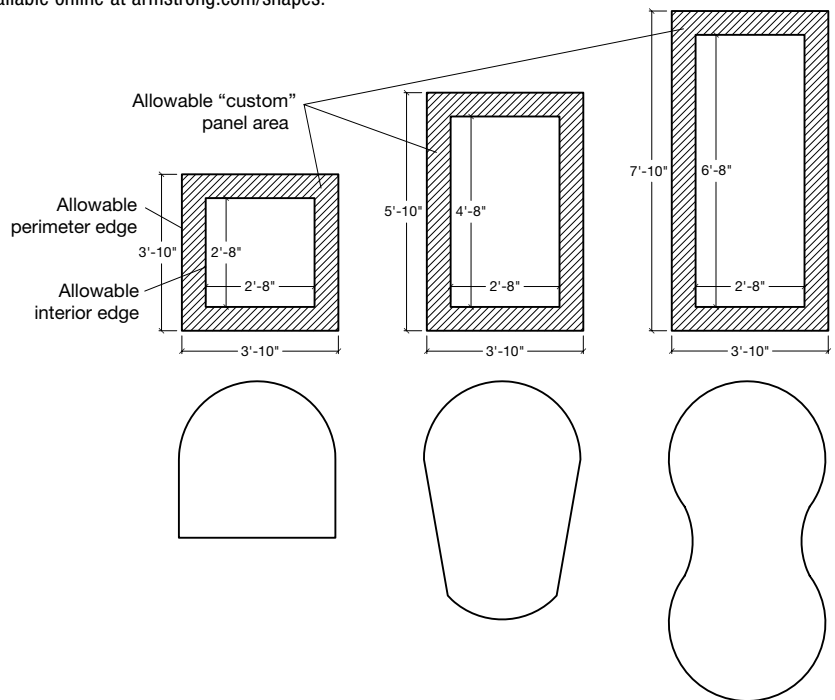
**Custom Shapes**

**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](http://armstrong.com/shapes).



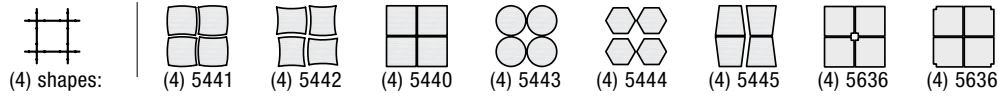
SoundScapes Shapes Custom panels in Custom colors  
Carmen & David's Creamery, Lancaster, PA



# Ways You Can Suspend SoundScapes® Shapes in Groups

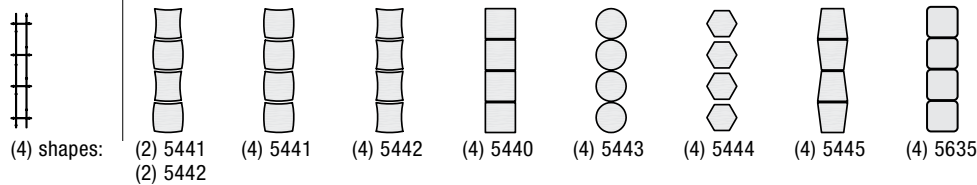
**Standard Grouping Ideas** To create standard groups with a minimum of 2" spacing between shapes, order the kits listed below each group.

## 4-Panel Square Group Layouts



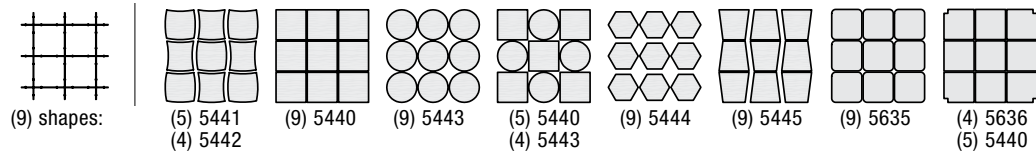
+ (2) 5450 Deck Hanging Kits (1) 5451 Grouping Frames Kit (1) 5453 Frame Alignment Kit (4) 5454 Panel Hook Kits

## 4-Panel Linear Group Layouts



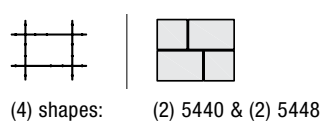
+ (4) 5450 Deck Hanging Kits (1) 5451 Grouping Frames Kit (1) 5452 Frame Splice Kit (2) 5453 Frame Alignment Kits  
(4) 5454 Panel Hook Kits

## 9-Panel Square Group Layouts



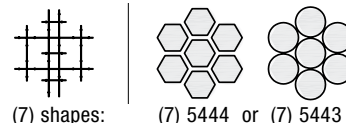
+ (5) 5450 Deck Hanging Kits (2) 5451 Grouping Frames Kits (3) 5453 Frame Alignment Kits (9) 5454 Panel Hook Kits

## 4-Panel Rectangular Layout



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

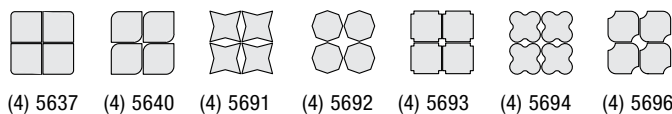
## 7-Panel Group Layouts



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

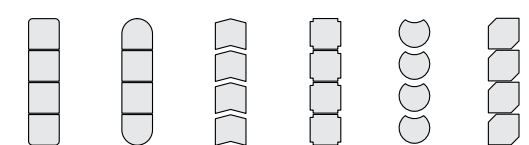
## Custom Grouping Ideas

### 4-Panel Square Group Layouts



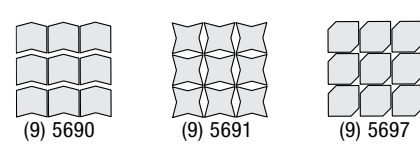
+ (2) 5450 Deck Hanging Kits (1) 5451 Grouping Frames Kit (1) 5453 Frame Alignment Kit (4) 5454 Panel Hook Kits

### 4-Panel Linear Group Layouts



+ (4) 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



+ (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](http://armstrong.com/shapes) or see installation instructions LA-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™ at 1 877 ARMSTRONG and select options 1-1-4.



# 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.

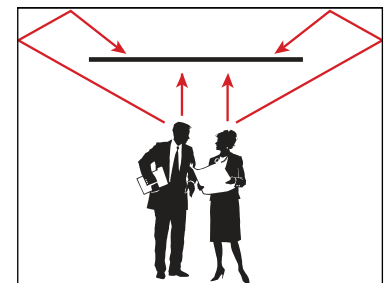
The installation of clouds in a reverberant space can significantly reduce the background noise and reverberation time, enhancing speech intelligibility.

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

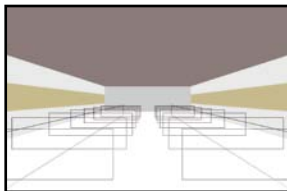
- Size and shape of cloud
- Number of clouds and their layout
- Suspension distance below exposed deck or finished ceiling
- Location and vertical or horizontal layering of clouds
- Material selection (fiberglass clouds or mineral fiber canopies)



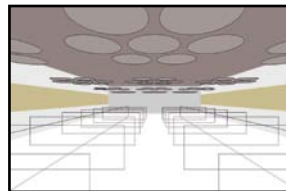
SoundScapes® Shapes Convex and Concave panels in White  
RPA Design, Charlotte, NC



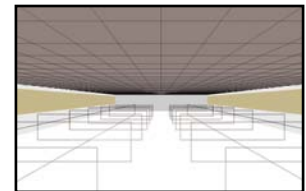
**EXPOSED STRUCTURE**



**SOUNDSCAPES SHAPES**



**FULL ULTIMA® CEILING**



5,000 SF Exposed Structure (50' x 100'), 15' to deck, drywall with windows on two sides, commercial carpet

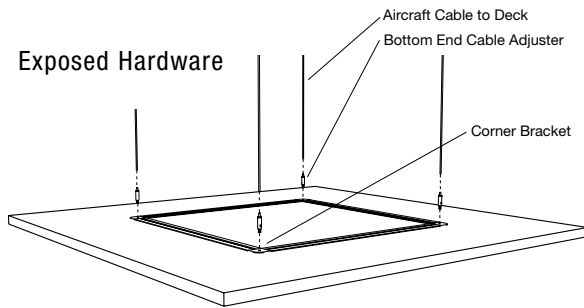
| Ceiling                          | No Ceiling/<br>Exposed<br>Structure | SoundScapes<br>(25% of ceiling) |                                   | SoundScapes<br>(50% of ceiling) |                                   | Full Ultima<br>Ceiling   |
|----------------------------------|-------------------------------------|---------------------------------|--------------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

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

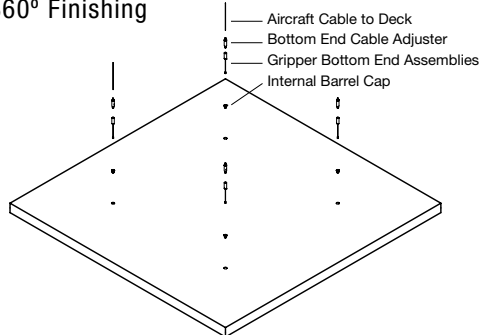
## 1. Individual Suspension



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 360° Finishing



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

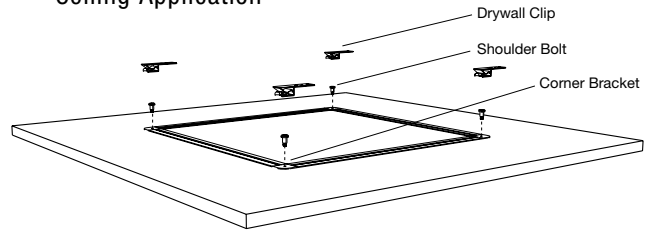
### Installation View



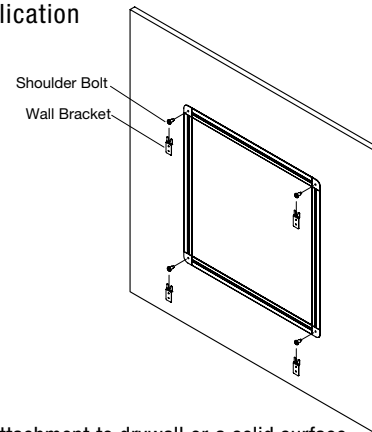
Custom Square in White with 360° finishing (hardware included)

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

### Ceiling Application



### Wall Application



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<br>(1) Wall Hanging Kit (Item 5588) for a 4' x 4' wall panel<br>(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<br>(2) Wall Hanging Kits (Item 5588) for a wall installation   |

### Installation View

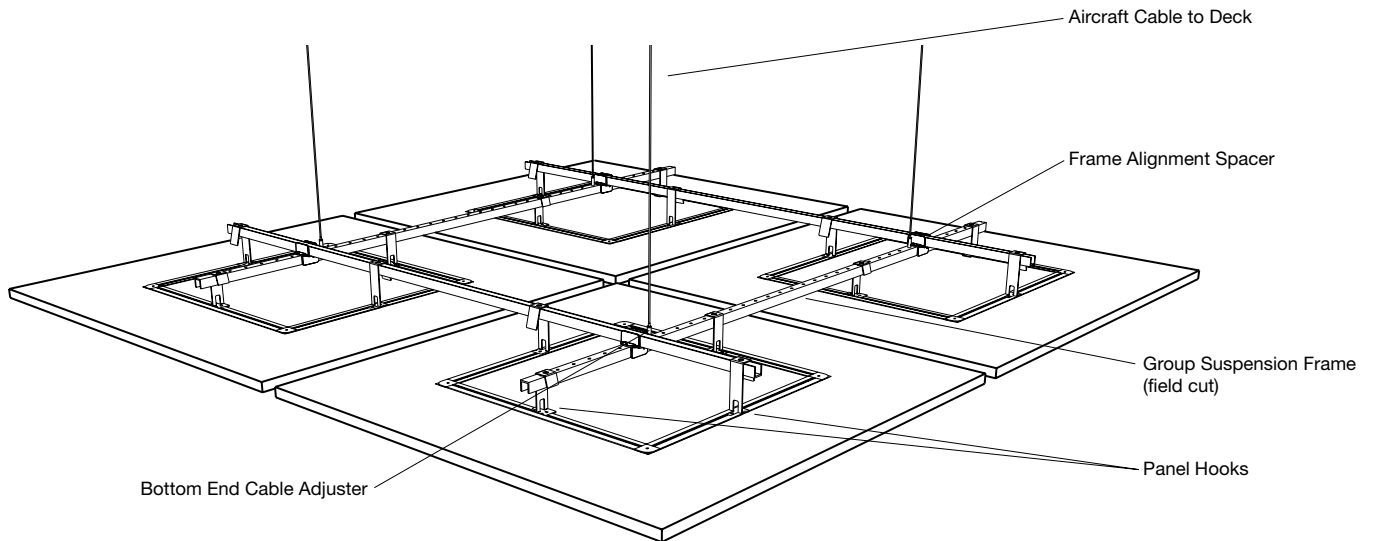


Items 5440 and 5448 in Tangerine (upper wall and ceiling)

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

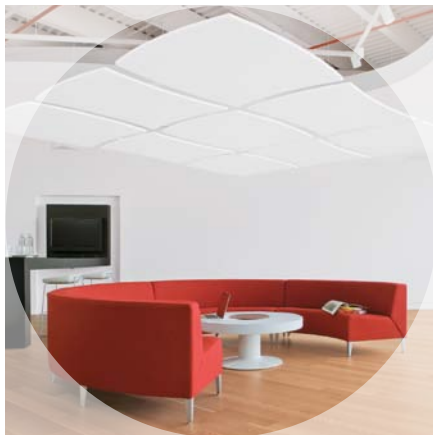
# Installation Options

## 3. Group Suspension

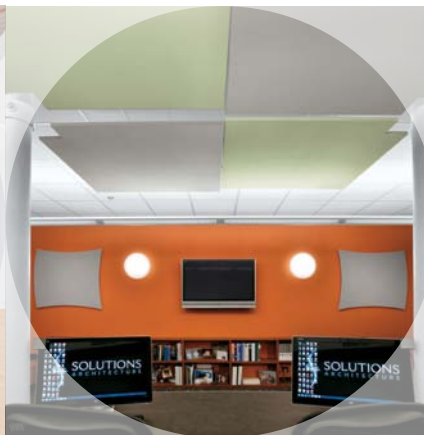


| Nominal 4' x 4' Shapes                              |
|---|
| (4) Shapes (Items 5440 through 5447 and 5635, 5636) |
| (2) Deck Hanging Kits (Item 5450)                   |
| (1) Grouping Frames Kit (Item 5451)                 |
| (1) Frame Alignment Kit (Item 5453)                 |
| (4) Panel Hook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

## 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

**NOTE:** See installation instructions LA-297302 for details on typical group configurations. CAD details are also available on the web at [armstrong.com/shapes](http://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<sup>SM</sup> at 1 877 ARMSTRONG.



**Before:** Acoustical tile

## Case Study

**Project:** Carmen & David's Creamery

**Location:** Lancaster, PA

**Product:** SoundScapes Custom Acoustical Shapes and Canopies

**Challenge:** Before they opened their new establishment, the owners of Carmen & David's Creamery transformed a former coffee shop with dark purple and deep red interior into a whimsical ice cream parlor with bright, cheerful sherbet colors.

As co-owner Carmen Garcia-Hommel explained, "We were able to add color to just about every surface in the shop but the ceiling because we thought we couldn't do anything with it."

**Solution:** To complete the transformation, co-owner David Hommel partnered with Armstrong Ceilings to install a variety of new SoundScapes Custom Shapes and Canopies throughout the shop.

A three-part custom ceiling cloud in the shape of a cone with two scoops of ice cream now highlights the ceiling in the serving area, while a pair of cones, each with a single scoop, adorn the adjacent seating area. In addition, seven convex and concave SoundScapes Canopies were installed. All of the clouds and canopies are in custom colors that coordinate with the sherbet-like colors of the shop's interior.

"The installation of the shapes and canopies has added wonderful depth and visual appeal to the ceiling. Everyone who comes in looks up and can't help but notice them," said Garcia-Hommel.

**After:** SoundScapes® Custom Shapes and Canopies in Custom colors





# SOUNDSCAPES® Shapes

## Acoustical Clouds and Walls

Recycled Content: 82%

armstrong.com/greengenie

### LEED® Credits

|        |            |                  |                 |                     |                  |
|--------|------------|------------------|-----------------|---------------------|------------------|
| Energy | Waste Mgmt | Recycled Content | Local Materials | Renewable Materials | Daylight & Views |
| ✓      | ✓          | ✓                | ✓               | ✓                   | ✓                |

Location Dependent

### LEED for Schools

Acoustics



### Colors

|                 |            |             |                |                |
|-----------------|------------|-------------|----------------|----------------|
| White (WH)      | Pecan (PC) | Stone (SE)  | Plum (PM)      | Tangerine (TG) |
| Shell (SH)      | Sky (SK)   | Reef (RE)   | Cranberry (CN) | Black (BK)     |
| Pale Lemon (LM) | Moss (MS)  | Lagoon (LA) | Kiwi (KW)      |                |

## Visual Selection

| Item No. | Description                   | Dimensions             | 360° Finishing Available |
|----------|-------------------------------|------------------------|--------------------------|
| 5440__   | Square                        | Nominal 4' x 4' x 7/8" | Yes                      |
| 5441__   | Convex                        | Nominal 4' x 4' x 7/8" | Yes                      |
| 5442__   | Concave                       | Nominal 4' x 4' x 7/8" | Yes                      |
| 5443__   | Circle                        | Nominal 4' x 4' x 7/8" | Yes                      |
| 5444__   | Hexagon                       | Nominal 4' x 4' x 7/8" | No                       |
| 5445__   | Trapezoid                     | Nominal 4' x 4' x 7/8" | Yes                      |
| 5635__   | Square – 6" radius cut corner | Nominal 4' x 4' x 7/8" | Yes                      |
| 5636__   | Square – 6" square cut corner | Nominal 4' x 4' x 7/8" | Yes                      |
| 5448__   | Small Rectangle               | Nominal 4' x 6' x 7/8" | Yes                      |
| 5449__   | Large Rectangle               | Nominal 4' x 8' x 7/8" | Yes                      |

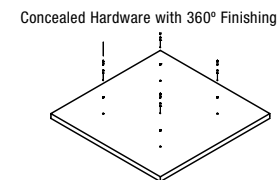
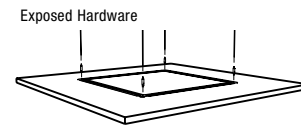
\* Add 2-letter color suffix to item number when specifying or ordering. (Ex: 5440WH for Square panel in White)

\* Exact dimensions for each shape are shown on page 1 inside.

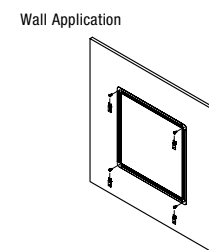
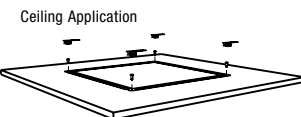
NOTE: Concealed hardware with 360° finishing is available for all Shapes except Hexagon. Contact Architectural Specialties for ordering information.

## Suspension Options

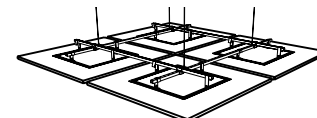
### 1. Individual Suspension (See page 5 inside)



### 2. Individual Attachment to Drywall (or a solid surface) (See page 5 inside)



### 3. Group Suspension (See page 6 inside)



## 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 Architectural Specialties at 1 877 ARMSTRONG, select options 1-1-4.

### Surface Finish

DuraBrite 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.

### Design Considerations

SoundScapes Shapes maintain a natural sag that may 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 Architectural Specialties 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 for creating a custom shape on page 2 to Architectural Specialties at 1 877 ARMSTRONG, and select options 1-1-4.

### Fire Performance

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

SoundScapes Shapes, 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

### Acoustical Performance

1.49 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. See page 4 for more information.

### Seismic Restraint\*

The International Building Code allows architectural components to swing freely as long as they will not be damaged or cause damage. Shapes suspended individually with aircraft cable will swing no more than 18" in any direction for each panel. Shapes directly attached to drywall or suspended in group systems have been engineered for application in all seismic areas.

\* Pendulum reaction information is based on full-scale testing and computer modeling conducted at the Structural Engineering Earthquake Simulation Lab located at the State University of New York at Buffalo.

### Recommended Suspension Systems

SoundScapes Shapes 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 LA-297302 for installation details.

### Panel Weight

0.63 lbs/SF

### Warranty

One (1) year limited warranty. Details: armstrong.com/warranty

# 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



**625530 – Extended Hanging Cables**

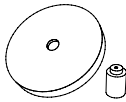
For use with deck hanging kit when longer cables are needed.

- (4) 30' aircraft cables

**7006 – Escutcheon Kit**

Used when hanging panels below an existing ceiling.

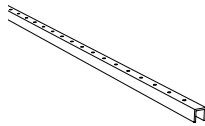
- (2) collars with set screws
- (2) 2" escutcheons



**5451 – Grouping Frames Kit**

Suspension frames used to group panels together.

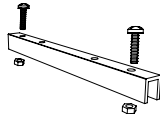
- (4) suspension frames, 12' long, black



**5452 – Frame Splice Kit**

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

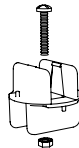
- (2) group frame connectors, 10" long, black
- (4) bolts with washers
- (4) nuts



**5453 – Frame Alignment Kit**

For use with group suspension frames.

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



**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 LA-297302 for more details.

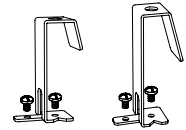
If you need assistance identifying what and how many accessory kits are needed for your project, please contact TechLine at 1 877 ARMSTRONG.

**ITEM #            KIT CONTENTS**

**5454 – Panel Hook Kit**

For use with group frames, (one kit per all panels except item 5449, Large Rectangle, which requires 2 kits)

- (2) 4-1/2" high panel hooks, black
- (2) 3-1/2" high panel hooks, black
- (8) bolts

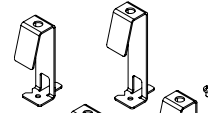


**Multi-plane Hanging Kits**

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

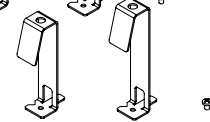
**5629 – 1" Drop Hook Kit**

- (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



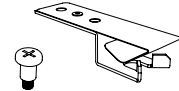
**5631 – 3" Drop Hook Kit**

- (2) 6-1/2" hooks
- (2) 7-1/2" hooks
- (8) screws

**5455 – Drywall Ceiling Hanging Kit**

For individual panel attachment to drywall.

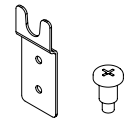
- (2) drywall clip assemblies
- (2) shoulder bolts



**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

