

SECTION 09 51 00

SUSPENDED ACOUSTICAL CEILINGS

PART 1 – GENERAL

1.1 PURPOSE

- A. This guideline is intended to provide useful information to the Professional Service Provider (PSP) to establish a basis of design. PSP is to apply the principles of this section such that the University of Texas at Arlington (UTA) may achieve a level of quality and consistency in the design and construction of their facilities. Deviations from these guidelines must be approved by UTA and may require justification through Life Cycle Cost (LCC) analysis and submitted to UTA for approval.

1.2 LESSONS LEARNED AND DESIGN CONSIDERATIONS

- A. **Armstrong Fine Fissured should be used in classrooms for acoustical absorption.**
- B. **Armstrong Kitchen Zone should be used in Wet Labs, Clean Rooms and Food Preparation Areas.**
- C. **Deviation from campus standard systems can be discussed on a project-by-project basis as applicable.**

1.3 SECTION INCLUDES

- A. Suspended metal grid ceiling system.
- B. Acoustical units.
- C. Exposed grid suspension system.

1.4 RELATED REQUIREMENTS

- A. Volatile Organic Compound (VOC) Content Restrictions section in Division 01.
- B. Section 09 54 39 – Open Ceiling System.

1.5 REFERENCE STANDARDS

- A. ASTM C635/C635M - Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings; current edition.
- B. ASTM C636/C636M - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels; current edition.
- C. ASTM E1264 - Standard Classification for Acoustical Ceiling Products; current edition.

1.6 ADMINISTRATIVE REQUIREMENTS

- A. Sequence work to ensure acoustical ceilings are not installed until building is enclosed, sufficient heat is provided, dust generating activities have terminated, and overhead work is completed, tested, and approved.
- B. Do not install acoustical units until after interior wet work is dry.

1.7 SUBMITTALS

- A. See Division 01 for submittal procedures.
- B. Product Data: Provide data on suspension system components and acoustical units.
- C. Samples: Submit two samples 12 X 12 inch in size illustrating material and finish of acoustical units.
- D. Samples: Submit two samples each, 12 inches long, of suspension system main runner.
- E. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Division 01 for additional provisions.
 - 2. Extra Acoustical Units: Quantity equal to 1 percent of total installed.
- F. LEED Submittal: Documentation of recycled content and location of manufacture.

1.8 QUALITY ASSURANCE

- A. Suspension System Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- B. Acoustical Unit Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

1.9 FIELD CONDITIONS

- A. Maintain uniform temperature of minimum 60 degrees F, and maximum humidity of 40 percent prior to,

during, and after acoustical unit installation

PART 2 – PRODUCTS

2.1 ACOUSTICAL UNITS

- A. Basis of Design: Armstrong World Industries, www.armstrongceilings.com.
 - 1. Substitutions: See Division 01.
- B. Acoustical Panels:
 - 1. Painted mineral fiber, ASTM E 1264 Type III
 - 2. Painted fiberglass, ASTM E 1264 Type XII
 - 3. Characteristics:
 - a). Size: 24 by 24 inches.
 - b). Thickness: Varies, based on product.
 - c). Composition: Varies, based on product.
 - d). Density: Varies, based on product.
 - e). Light Reflectance - ASTM E1264: Varies, based on product.
 - f). NRC Range - ASTM E1264: Varies, based on product.
 - g). Edge: Varies, based on product.
 - h). Surface Color: Varies, based on project.
 - i). Surface Pattern: Varies, based on product.
 - j). Suspension System: Varies, based on project.

2.2 SUSPENSION SYSTEM(S)

- A. Manufacturers:
 - 1. Armstrong World Industries, Inc.
 - 2. Chicago Metallic Corporation.
 - 3. USG.
 - 4. Substitutions: Not permitted.
- B. Suspension Systems - General: Complying with ASTM C635/C635M; die cut and interlocking components, with stabilizer bars, clips, splices, perimeter moldings, and hold down clips as required.
- C. Exposed Steel Suspension System: Formed steel, commercial quality cold rolled; heavy-duty.
 - 1. Profile Tee: Prelude XL Series, 15/16"
 - 2. Construction: Double web.
 - 3. Finish: As selected by Architect.

2.3 CANOPY & CLOUD SYSTEMS

- A. Manufacturers:
 - 1. Basis of Design: Armstrong World Industries, Inc., Formations Cloud Kits
- B. Panels:
 - 1. Acoustical: Armstrong, Ultima 1910.
 - 2. Other Materials: Armstrong, Metalworks
- C. Suspension Systems:
 - 1. Prelude 15/16" Suspension System.
 - 2. Drywall 1½" Suspension System.
- D. Edge Trims:
 - 1. Armstrong, Axiom.

2.4 ACCESSORIES

- A. Support Channels and Hangers: Galvanized steel; size and type to suit application, seismic requirements, and ceiling system flatness requirement specified.
- B. Perimeter Moldings: Same material and finish as grid.
 - 1. At Exposed Grid: Provide L-shaped molding for mounting at same elevation as face of grid.
- C. Gypsum Board: Fire rated type; 5/8 inch thick, ends and edges square, paper faced.
- D. Touch-up Paint: Type and color to match acoustical and grid units.

PART 3 – EXECUTION

GUIDE SPECIFICATIONS FOR DESIGN AND CONSTRUCTION DOCUMENTS

3.1 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that layout of hangers will not interfere with other work.

3.2 INSTALLATION - SUSPENSION SYSTEM

- A. Install suspension system in accordance with ASTM C 636/C 636M and manufacturer's instructions and as supplemented in this section. Maximum hanger spacing – 4' - 0" o.c.
- B. Rigidly secure system, including integral mechanical and electrical components, for maximum deflection of 1:360.
- C. Locate system on room axis according to reflected plan.
- D. Install after major above-ceiling work is complete. Coordinate the location of hangers with other work.
- E. Provide hanger clips during steel deck erection. Provide additional hangers and inserts as required.
- F. Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.
- G. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.
- H. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.
- I. Support fixture loads using supplementary hangers located within 6 inches of each corner, or support components independently.
- J. Do not eccentrically load system or induce rotation of runners.
- K. Perimeter Molding: Install at intersection of ceiling and vertical surfaces and at junctions with other interruptions.
 - 1. Use longest practical lengths.
 - 2. Overlap and rivet corners.

3.3 INSTALLATION – ACOUSTICAL UNITS

- A. Install acoustical units in accordance with manufacturer's instructions.
- B. Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function.
- C. Fit border trim neatly against abutting surfaces.
- D. Install units after above-ceiling work is complete.
- E. Install acoustical units level, in uniform plane, and free from twist, warp, and dents.
- F. Cutting Acoustical Units:
 - 1. Cut to fit irregular grid and perimeter edge trim.
 - 2. Make field cut edges of same profile as factory edges.
 - 3. Double cut and field paint exposed reveal edges.
- G. Where round obstructions occur, provide preformed closures to match perimeter molding.
- H. Install hold-down clips on panels within 20 ft of an exterior door.

3.4 TOLERANCES

- A. Maximum Variation from Flat and Level Surface: 1/8 inch in 10 feet.
- B. Maximum Variation from Plumb of Grid Members Caused by Eccentric Loads: 2 degrees.

PART 4 – APPENDIX

4.1 PRODUCT DATA / CUT SHEETS

- A. Armstrong, Optima #3152, 24x24x1" Square Lay-in Fine Texture
- B. Armstrong, Optima #3250, 24x24x1" Tegular Fine Texture
- C. Armstrong, Cortega #770, 24x24x5/8" Square Lay-in Medium Texture
- D. Armstrong, Kitchen Zone #673, 24x24x5/8" Square Lay-in Smooth Texture
- E. Armstrong, Fine Fissured / Fine Fissured High NRC, 24x24x7/8" / 24x24x5/8" Square Lay-in Medium Texture
- F. Armstrong, Prelude XL Series, 15/16"
- G. Armstrong, Formations Cloud Kits

END OF SECTION

OPTIMA®
Square Lay-in
fine texture

Items with
Breakthrough
Plant-based
Binder have a
PB Suffix



3152, 3153



See more photos at:
armstrong.com/photogallery
SEARCH: optima

Smooth-textured Optima panels provide excellent acoustical absorption and more standard-size options than any other texture in the line.

KEY SELECTION ATTRIBUTES

- Outstanding acoustical performance for open plan areas, both Articulation Class (180-200) and NRC (0.90-1.00)
- Smooth, clean, durable finish – Washable, Impact-resistant, Scratch-resistant, Soil-resistant
- Energy-saving high light-reflective finish
- Non-directional visual reduces scrap and installation time
- Items with PB suffix are manufactured with a plant-based binder
- Sag-resistant large-size panels
- Compatible with TechZone™ Ceiling Systems (Pgs. 251-257)
- Item 3352 available with Create!™ printed images and patterns, see pages 175-177
- 30-Year Limited System Warranty against visible sag, mold, and mildew

TYPICAL APPLICATIONS

- Open plan offices
- Computer rooms
- Corridors (walls-to-deck)
- Auditoriums
- Waiting rooms/nurses' stations – assists in addressing HIPAA and FGI acoustical requirements
- Areas with indirect lighting systems

COLOR



White

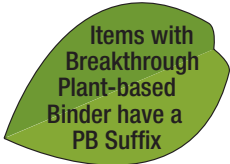
DETAILS



1. Optima Square Lay-in
2. Optima Square Lay-in with Prelude 15/16" suspension system

OPTIMA®

Square Lay-in
fine texture



UP TO **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 PB ONLY PB ONLY PB ONLY

VISUAL SELECTION

Edge Profile	Susp. Dwg. Pgs. 295-299	Item No.	Dimensions (Inches)
OPTIMA®			
15/16" Square Lay-in	1	1462	4 x 48 x 1"
	1	1463	4 x 60 x 1"
	1	1400	6 x 48 x 1"
	1	1404	6 x 60 x 1"
	1	3156	20 x 60 x 1"
	1	3150 3150PB	24 x 24 x 3/4"
	1	3152 3152PB	24 x 24 x 1"
	1	3352	24 x 24 x 1"
	1	3159	24 x 24 x 1-1/2"

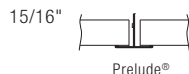
PERFORMANCE SELECTION

Dots represent high level of performance.

UL Classified Acoustics		Total Acoustics†	Articulation Class	Fire Rating	Light Reflect	Anti-Mold & Mildew	Sag Resist	Certified Low VOC Emissions	Wash	Impact	Scratch	Soil	Recycled Content	Recycle Program	30-Yr Warranty
NRC	CAC					Inherent	Humi-Guard+								
N/A	N/A	-	N/A	Class A	0.90	•	•	-	•	•	•	•	•	•	•
N/A	N/A	-	N/A	Class A	0.90	•	•	-	•	•	•	•	•	•	•
N/A	N/A	-	N/A	Class A	0.90	•	•	-	•	•	•	•	•	•	•
N/A	N/A	-	N/A	Class A	0.90	•	•	-	•	•	•	•	•	•	•
0.95	N/A	-	190	Class A	0.90	•	•	-	•	•	•	•	•	•	•
0.90	N/A	-	180	Class A	0.90	•	•	-	•	•	•	•	•	•	•
0.95	N/A	-	190	Class A	0.90	•	•	-	•	•	•	•	•	•	•
0.90	26	-	200	Class A	0.90	•	•	-	•	•	•	•	•	-	•
1.00	N/A	-	200	Class A	0.90	•	•	-	•	•	•	•	•	•	•

† Total Acoustics™ ceiling panels have an ideal combination of noise reduction and sound-blocking performance in one product.

SUSPENSION SYSTEMS



new Blizzard White – Suspension System Finish

A color and texture coordinated suspension system to complement Optima ceiling panels for a monolithic look and feel.

PHYSICAL DATA

Material
3115, 3150-3153, 3155, 3156, 3158, 3159 – Fiberglass with DuraBrite® acoustically transparent membrane 3352, 3353, 3356, 3314, 3315 – Fiberglass with DuraBrite acoustically transparent membrane; CAC backing

Surface Finish
DuraBrite with factory-applied latex paint

Fire Performance
ASTM E84 and CAN/ULC S102 surface burning characteristics. Flame Spread Index 25 or less. Smoke Developed Index 50 or less. (UL labeled.)

ASTM E1264 Classification
Type XII, Form 2, Pattern E
Fire Class A

Humidity/Sag Resistance
HumiGuard® Plus ceiling panels maintain superior sag resistance. Recommended for areas subject to high humidity, up to, but not including, standing water and outdoor applications.

Anti-Mold/Mildew
Fiberglass panels inherently inhibit the growth of mold and mildew.

VOC Emissions (PB suffix items only)
Third-party certified compliant with California Department of Public Health CDPH/EHLB/Standard Method Version 1.1, 2010. This standard is the guideline for low emissions in LEED, CalGreen Title 24, ANSI/ASHRAE/USGBC/ES Standard 189; ANSI/GBI Green Building Assessment Protocol.

Primary (Embodied) Energy
See all LCA information on our EPD's.

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 Details
Some items have CAC backing. CAC backing may be available as a special order. A CAC value of 37 can be achieved by backloading fiberglass products with item 769 or 770.

Insulation Value
1400, 1404, 1462, 1463, 3152, 3156, 3352, -
R Factor – 4.0 (BTU units)
R Factor – 0.70 (Watts units)
3150 – R Factor – 3.0 (BTU units)
R Factor – 0.53 (Watts units)
3159 – R Factor – 6.0 (BTU units)
R Factor – 1.05 (Watts units)

Application Consideration
Do not mix Optima panels and Optima® Health Zone™ panels in the same room.

30-Year Performance Guarantee & Warranty
When installed with Armstrong® Suspension System. Details at armstrong.com/warranty

Weight; Square Feet/Carton
1400 – 0.13 lbs/SF; 24 SF/ctn
1404 – 0.16 lbs/SF; 30 SF/ctn
1462 – 0.44 lbs/SF; 16 SF/ctn
1463 – 0.44 lbs/SF; 20 SF/ctn
3150 – 0.44 lbs/SF; 128 SF/ctn
3152 – 0.45 lbs/SF; 96 SF/ctn
3159 – 0.61 lbs/SF; 64 SF/ctn
3156 – 0.47 lbs/SF; 100 SF/ctn
3352 – 0.46 lbs/SF; 96 SF/ctn

Minimum Order Quantity
1 carton, excludes other size panels

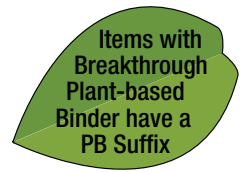
Metric Items Available
3150M, 3152M, 3156M, 3159M – Metric items are subject to extended lead times and minimum quantities. Contact your representative for more details.



FIBERGLASS

OPTIMA®

Tegular
fine texture



See more photos at:
armstrong.com/photogallery
SEARCH: optima

Optima® Tegular 24" x 24" panels with Sonata® 9/16" suspension system (Pg. 289)

Smooth-textured panels provide excellent acoustical absorption and the most standard sizes of any Armstrong product.

KEY SELECTION ATTRIBUTES

- Outstanding acoustical performance for open plan areas, both Articulation Class (180-200) and NRC (0.90-1.00)
- Smooth, clean, durable finish – Washable, Impact-resistant, Scratch-resistant, Soil-resistant
- Energy-saving high light-reflective finish
- Non-directional visual reduces scrap and installation time
- Items with PB suffix are manufactured with a plant-based binder
- Sag-resistant large-size panels
- Compatible with TechZone® Ceiling Systems (Pgs. 251-257)
- 30-Year Limited System Warranty against visible sag, mold, and mildew

TYPICAL APPLICATIONS

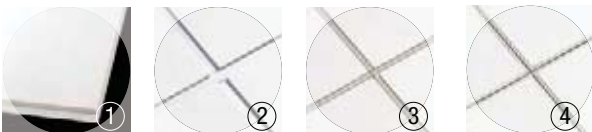
- Open plan offices
- Computer rooms
- Corridors (walls-to-deck)
- Auditoriums
- Waiting rooms/nurses' stations – assists in addressing HIPAA and FGI acoustical requirements
- Areas with indirect lighting systems

COLOR



White

DETAILS (Other Suspension Systems compatible. Refer to listing on page 214.)



1. Optima Square Tegular
2. Optima Tegular with Prelude® 15/16" suspension system
3. Optima Tegular with Interlude® XL® HRC 9/16" suspension system
4. Optima Tegular with Silhouette® 9/16" suspension system with 1/8" reveal
5. Suprafine ML, XL, and XL HRC with Blizzard White finish
6. Silhouette XL 1/4" and 1/8" Reveal with Blizzard White finish
7. Interlude XL HRC with Blizzard White finish

OPTIMA®

Tegular

fine texture

Items with Breakthrough Binder have a PB Suffix

UP TO 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 PB ONLY PB ONLY PB ONLY

VISUAL SELECTION

Edge Profile	Susp. Dwg. Pgs. 295-299 armstrong.com/catdwgs	Item No.	Dimensions (Inches)
OPTIMA® Tegular			
15/16" Square Tegular		1402	6 x 48 x 1"
		1406	6 x 60 x 1"
		3264	12 x 24 x 1"
		3278	20 x 60 x 1"
		3250 3250PB	24 x 24 x 1"
		3354	24 x 24 x 1"
		3253	24 x 24 x 1-1/2"
		3252 3252PB	24 x 48 x 1"
		3281	24 x 72 x 1"
		3282	24 x 96 x 1"
		3258	30 x 30 x 1"
		3286	30 x 60 x 1"
9/16" Square Tegular		1410	4 x 48 x 1"
		1411	4 x 60 x 1"
		1412	6 x 6 x 1"

PERFORMANCE SELECTION

Dots represent high level of performance.

UL Classified Acoustics		NRC + CAC =		Total Acoustics†	Articulation Class	Fire Rating	Light Reflect	Anti-Mold & Mildew	Sag Resist	Certified Low VOC Emissions	Wash	Impact	Scratch	Soil	Recycled Content	Recycle Program	30-Yr Warranty	
NRC	CAC							Inherent	Humi-Guard+		Durability							
N/A	N/A	-	180	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
N/A	N/A	-	180	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
0.95	N/A	-	190	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
0.95	N/A	-	190	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
0.95	N/A	-	190	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
0.90	26	-	200	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
1.00	N/A	-	200	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
0.95	N/A	-	190	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
0.95	N/A	-	190	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
0.95	N/A	-	190	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
0.95	N/A	-	190	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
0.95	N/A	-	190	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
0.95	N/A	-	190	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
0.95	N/A	-	190	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
N/A	N/A	-	N/A	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
N/A	N/A	-	N/A	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
N/A	N/A	-	180	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
N/A	N/A	-	180	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	
N/A	N/A	-	180	Class A	0.90	•	•	•	•	•	•	•	•	•	•	•	•	

† Total Acoustics™ ceiling panels have an ideal combination of noise reduction and sound-blocking performance in one product. **FS FastSize:** Factory-finished, made-to-order sizes, shipped fast (1 carton min.)

PHYSICAL DATA

Material
3316, 3317, 3354, 3355 – Fiberglass with DuraBrite® acoustically transparent membrane; CAC backing All other items – Fiberglass with DuraBrite acoustically transparent membrane

Surface Finish
DuraBrite scrim with factory-applied latex paint

Fire Performance
ASTM E84 and CAN/ULC S102 surface burning characteristics. Flame Spread Index 25 or less. Smoke Developed Index 50 or less. (UL labeled)

ASTM E1264 Classification
Type XII, Form 2, Pattern E
Fire Class A

Humidity/Sag Resistance
HumiGuard® Plus ceiling tiles maintain superior sag resistance. Recommended for areas subject to high humidity, up to, but not including, standing water and outdoor applications.

Anti Mold/Mildew
Fiberglass panels inherently inhibit the growth of mold and mildew.

VOC Emissions (PB items only)
Third-party certified compliant with California Department of Public Health CDPH/EHLB/Standard Method Version 1.1, 2010. This standard is the guideline for low emissions in LEED, CalGreen Title 24, ANSI/ASHRAE/USGBC/IES Standard 189; ANSI/GBI Green Building Assessment Protocol.

Primary (Embodied) Energy
See all LCA information on our EPD's.

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 Details
Some items have CAC backing. CAC backing may be available as a special order. A CAC value of 37 can be achieved by backloading fiberglass products with Item 769 or 770.

Insulation Value
3253 –
R Factor – 6.0 (BTU units)
R Factor – 1.05 (Watts units)
3281, 3282 –
R Factor – 3.0 (BTU units)
R Factor – 0.53 (Watts units)

All other items –
R Factor – 4.0 (BTU units)
R Factor – 0.70 (Watts units)

30-Year Performance Guarantee & Warranty
When installed with Armstrong® Suspension System. Details at armstrong.com/warranty

Weight, Square Feet/Carton
1402 – 0.55 lbs/SF; 24 SF/ctn
1406 – 0.55 lbs/SF; 30 SF/ctn
3250, 3250PB, 3251, 3251PB, 3252, 3252PB, 3282 – 0.55 lbs/SF; 96 SF/ctn
1410 – 0.55 lbs/SF; 16 SF/ctn
1411 – 0.55 lbs/SF; 20 SF/ctn
1412 – 0.55 lbs/SF; 6 SF/ctn
3264 – 0.55 lbs/SF; 48 SF/ctn
3253 – 0.78 lbs/SF; 64 SF/ctn
3255, 3255PB – 0.55 lbs/SF; 128 SF/ctn
3258 – 0.55 lbs/SF; 75 SF/ctn
3278, 3286 – 0.55 lbs/SF; 100 SF/ctn
3282 – 0.55 lbs/SF; 96 SF/ctn
3281 – 0.55 lbs/SF; 72 SF/ctn
3354 – 0.57 lbs/SF; 96 SF/ctn

Minimum Order Quantity
1 carton

Metric Items Available
3250M, 3252M, 3253M, 3354M – Metric items are subject to extended lead times and minimum quantities. Contact your representative for more details.



FIBERGLASS

CORTEGA®/CORTEGA® Second Look®

Square Lay-in & Tegular
medium texture



Cortega® Angled Tegular panels with Prelude® 15/16" suspension system (Pgs. 279-280)



Cortega® Second Look® II panels with Suprafine® 9/16" suspension system (Pgs. 287-288)

Cortega® offers a medium-textured, economical solution with standard acoustical absorption.

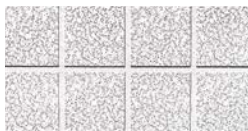
KEY SELECTION ATTRIBUTES

- Economical
- Non-directional visual reduces scrap and installation time (excludes Second Look items)
- Geometric Scored Visuals (Second Look items)

TYPICAL APPLICATIONS

- Storage and supply rooms
- Discount stores
- Utility Rooms

FACE VIEW



Cortega Second Look I panels – Scoring creates nominal 12" x 12" squares



Cortega Second Look II panels – Scoring creates nominal 24" x 24" squares

COLORS Colored ceilings are dye-lotted and should be segregated by dye lot. Do not mix.



White



Tech Black (BL)
Item 769

DETAILS (Other Suspension Systems compatible. Refer to listing on page 174.)



1. Cortega Square Lay-in
2. Cortega Beveled Tegular
3. Cortega Second Look
4. Cortega Lay-in with Prelude 15/16" suspension system
5. Cortega Beveled Tegular with Suprafine 9/16" suspension system

CORTEGA®/CORTEGA® Second Look®

Square Lay-in & Tegular medium texture

UP TO **43%** LEED®
55% RECYCLED CONTENT
 Calculate LEED contribution at armstrong.com/greengenie

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

VISUAL SELECTION

Edge Profile	Susp. Dwg. Pgs. 295-299 armstrong.com/catdwgs	Item No.	Dimensions (Inches)
CORTEGA® Square Lay-in			
	1	770	24 x 24 x 5/8"
		770M	600 x 600 x 15mm
	1	824	24 x 24 x 5/8"
	1	769 **	24 x 48 x 5/8"
		769M	600 x 1200 x 15mm
	1	823	24 x 48 x 5/8"
	1	747	24 x 48 x 5/8"
	1	773	20 x 60 x 5/8"
		773M	500 x 1500 x 15mm
	1	772	24 x 60 x 5/8"
		772M	600 x 1500 x 15mm
	1	Other Size Panels	W: 12" - 30" / L: 18" - 72" 5/8" Thick
CORTEGA Tegular			
	12	704	24 x 24 x 5/8"
		704M	600 x 600 x 15mm
	12	816	24 x 24 x 5/8"
	12	703	24 x 48 x 5/8"
	12	703	24 x 48 x 5/8"
	29, 44, 48, 52, 56, 60	2195	24 x 24 x 5/8"
		Other Size Panels	W: 12" - 30" / L: 18" - 72" 5/8" Thick
	29, 44, 48, 52, 56, 60	Other Size Panels	W: 12" - 30" / L: 18" - 72" 5/8" Thick
CORTEGA® Second Look® I			
	11	2765	24 x 48 x 3/4"
CORTEGA Second Look II			
	11	2758	24 x 48 x 3/4"
		2767	24 x 48 x 3/4"
	27	2776	24 x 48 x 3/4"

¹ Total Acoustics™ ceiling panels have an ideal combination of noise reduction and sound-blocking performance in one product. ** Add 2-letter color suffix to item number when specifying or ordering (e.g., 769 B L).

SUSPENSION SYSTEMS * Item 2195 - CAC 31 on 9/16" Silhouette or Trimlok.



NOTE: 9/16" Cortega Second Look items are installed using Suprafine suspension systems only.

PHYSICAL DATA

Material
Wet-formed mineral fiber

Surface Finish
Factory-applied latex paint

Fire Performance
ASTM E84 and CAN/ULC S102 surface burning characteristics. Flame Spread Index 25 or less. Smoke Developed Index 50 or less (UL labeled.)
Fire Guard: A fire-resistive ceiling when used in applicable UL assemblies

ASTM E1264 Classification
Type III, Form 2, Pattern C D

Humidity/Sag Resistance
Standard performance ceiling panels, adequate where the building is enclosed and the HVAC is continuously functioning.

VOC Emissions
Third-party certified compliant with California Department of Public Health CDPH/EHLB/Standard Method Version 1.1, 2010. This standard is the guideline for low emissions in LEED, CalGreen Title 24, ANSI/ASHRAE/USGBC/IES Standard 189; ANSI/GBI Green Building Assessment Protocol. (Excludes 769BL)

Primary (Embodied) Energy
See all LCA information on our EPD's.

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.

Insulation Value
2195, 704, 816, 703 - R Factor - 1.6 (BTU units);
R Factor - 0.28 (Watts units)
770, 772, 769, 773, 823, 824 - R Factor - 1.5 (BTU units); R Factor - 0.26 (Watts units)

Weight; Square Feet/Carton
769 - 0.61 lbs/SF; 96 SF/ctn
704, 2195 - 0.63 lbs/SF; 64 SF/ctn
772, 773 - 0.63 lbs/SF; 100 SF/ctn
703 - 0.65 lbs/SF; 80 SF/ctn
770 - 0.69 lbs/SF; 64 SF/ctn
816 - 1.08 lbs/SF; 48 SF/ctn
823 - 1.09 lbs/SF; 48 SF/ctn
824 - 1.09 lbs/SF; 64 SF/ctn
850 - 1.11 lbs/SF; 64 SF/ctn
2765, 2767 - 0.73 lbs/SF; 80 SF/ctn
2758 - 1.26 lbs/SF; 64 SF/ctn
2776 - 0.70 lbs/SF; 80 SF/ctn

Minimum Order Quantity
1 carton, excludes other size panels.

Metric Items Available
770M, 824M, 769M, 773M, 772M, 2195M, 704M, 703M, 823M - Metric items are subject to extended lead times and minimum quantities. Contact your representative for more details.

TechLine™ / 1 877 ARMSTRONG
armstrong.com/commceilings
(search: cortega)
BPCS-3017/3022-615

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PERFORMANCE SELECTION Dots represent high level of performance.

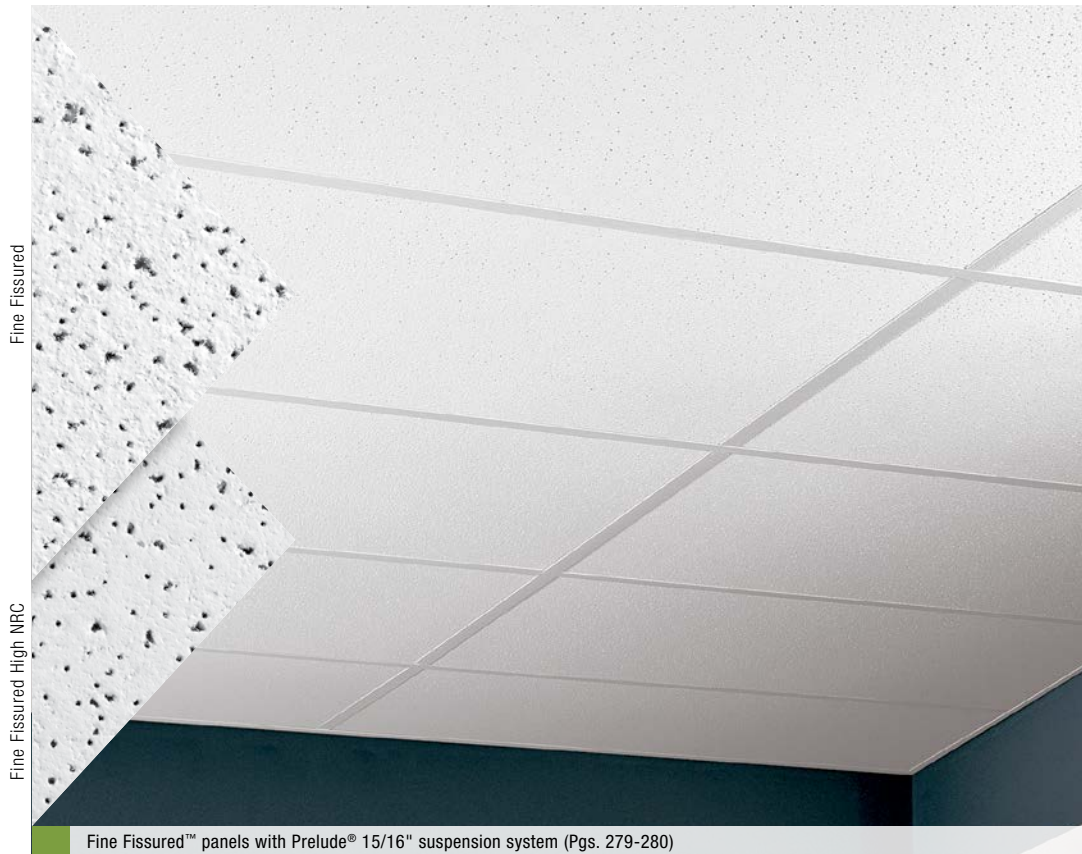
UL Classified Acoustics	NRC + CAC	Total Acoustics ¹	Fire Rating	Light Reflect	Anti-Mold & Mildew	Sag Resist	Certified Low VOC Emissions	Durability	Recycled Content	Recycled Program	Warranty
0.55	33	-	Class A	0.82	-	Std	•	Std	Std	•	1-Yr
0.55	35	-	Fire Guard™	0.82	-	Std	•	Std	Std	•	1-Yr
0.55	35	-	Class A	0.82	-	Std	•	Std	Std	•	1-Yr
0.55	35	-	Fire Guard	0.82	-	Std	•	Std	Std	•	1-Yr
0.55	40	-	Class A	0.82	-	Std	•	Std	Std	•	1-Yr
0.55	35	-	Class A	0.82	-	Std	•	Std	Std	•	1-Yr
0.55	35	-	Class A	0.82	-	Std	•	Std	Std	•	1-Yr
N/A	N/A	-	Class A	0.82	-	Std	•	Std	Std	•	1-Yr
0.55	33	-	Class A	0.82	-	Std	•	Std	Std	•	1-Yr
0.55	35	-	Fire Guard	0.82	-	Std	•	Std	Std	•	1-Yr
0.55	35	-	Class A	0.82	-	Std	•	Std	Std	•	1-Yr
0.55	35*	-	Class A	0.82	-	Std	•	Std	Std	•	1-Yr
N/A	N/A	-	Class A	0.82	-	Std	•	Std	Std	•	1-Yr
0.55	35	-	Class A	0.82	-	Std	•	Std	Std	•	1-Yr
0.55	40	-	Fire Guard	0.82	-	Std	•	Std	•	•	1-Yr
0.55	35	-	Class A	0.82	-	Std	•	Std	•	•	1-Yr
0.55	30	-	Class A	0.82	-	Std	•	Std	•	•	1-Yr

FINE FISSURED™ FINE FISSURED™ High NRC

Square Lay-in
medium texture



1713, 1714, 1728, 1830, 1831



See more photos at:
armstrong.com/photogallery
SEARCH: fine fissured

This economical, non-directional panel is available in standard and high-acoustical absorption options.

KEY SELECTION ATTRIBUTES

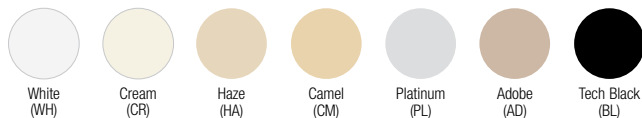
- Get total noise control and design flexibility with Total Acoustics™ ceiling panels: NRC + CAC = Total Acoustics™ performance
- Meets ANSI S12.60 Classroom Guidelines: Items 1713, 1714, 1810, 1811
- Economical
- Non-directional visual reduces scrap and installation time
- 30-Year Limited System Warranty against visible sag (excludes item 1738), mold and mildew

TYPICAL APPLICATIONS

- Schools
- Healthcare – assists in addressing HIPAA, HCAHPS, and FGI acoustical requirements (High Acoustics items only)
- Libraries/band rooms
- Corridors
- Theaters (Black items)

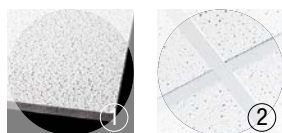
COLORS

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



Items 1728 and 1729 are available in colors. All other items are available in White only. Colored ceilings are dye-lotted and should be segregated by dye lot. Do not mix.

DETAILS



1. Fine Fissured Square Lay-in
2. Fine Fissured Square Lay-in with Prelude 15/16" suspension system

FINE FISSURED™ FINE FISSURED™ High NRC

Square Lay-in
medium texture

UP TO **73%** RECYCLED CONTENT

Calculate LEED contribution at armstrongceilings.com/greengene



VISUAL SELECTION

Edge Profile	Susp. Dwg. Pgs. 295-299	Item No.	Dimensions (Inches)
--------------	-------------------------	----------	---------------------

FINE FISSURED™ High NRC

15/16" Square Lay-in	1	1754	24 x 24 x 7/8"	
	1	1755	24 x 48 x 7/8"	

FINE FISSURED™

15/16" Square Lay-in	1	1736	20 x 60 x 5/8"	
	1	1728 _ _ ♦♦	24 x 24 x 5/8"	
	1	1831	24 x 24 x 5/8"	
	1	1729 _ _ ♦♦	24 x 48 x 5/8"	
	1	1830	24 x 48 x 5/8"	
	1	1737	24 x 60 x 5/8"	
	1	1738	30 x 60 x 3/4"	
	1	Other Size Panels	W: 12" - 30" / L: 18" - 72" 5/8" or 3/4" thick	

School Zone® FINE FISSURED™

15/16" Square Lay-in	1	1713	24 x 24 x 3/4"	
	1	1810	24 x 24 x 3/4"	
	1	1714	24 x 48 x 3/4"	
	1	1811	24 x 48 x 3/4"	
	1	Other Size Panels	W: 12" - 30" / L: 18" - 72" 3/4" thick	

¹ Total Acoustics™ ceiling panels have an ideal combination of noise reduction and sound-blocking performance in one product.

GOOD (NRC 0.60-0.65; CAC 35+) **BETTER** (NRC 0.70-0.75; CAC 35+) **BEST** (NRC 0.80+; CAC 35+)

♦♦ Add 2-letter color suffix to item number when specifying or ordering (e.g., 1729 B L)

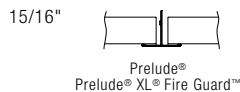
PERFORMANCE SELECTION

Dots represent high level of performance.

\$\$\$

UL Classified Acoustics		Total Acoustics ¹	Articulation Class	Fire Rating	Light Reflect	Anti-Mold & Mildew	Sag Resist	Certified Low VOC Emissions	Durability	Recycled Content	Recycle Program	30-Yr Warranty
NRC	+ CAC	NRC + CAC	AC	Fire	Light	Bio-Block	Humi-Guard+					
0.75	35	BETTER	170	Class A	0.86	•	•	•	Std	•	•	•
0.75	35	BETTER	170	Class A	0.86	•	Std	•	Std	•	•	1-Yr
0.55	35	–	–	Class A	0.85	•	•	•	Std	Std	•	•
0.55	33	–	–	Class A	0.85	•	•	•	Std	Std	•	•
0.55	35	–	–	Fire Guard™	0.85	•	•	•	Std	•	•	•
0.55	35	–	–	Class A	0.85	•	•	•	Std	Std	•	•
0.55	35	–	–	Fire Guard	0.85	•	•	•	Std	•	•	•
0.55	35	–	–	Class A	0.85	•	•	•	Std	Std	•	•
0.55	35	–	–	Class A	0.85	•	Std	•	Std	Std	•	•
N/A	N/A	–	–	Class A	0.85	•	Std	•	Std	Std	•	•
0.70	35	BETTER		Class A	0.85	•	•	•	Std	•	•	•
0.70	40	BETTER		Fire Guard	0.85	•	•	•	Std	•	•	•
0.70	40	BETTER		Class A	0.85	•	•	•	Std	•	•	•
0.70	40	BETTER		Fire Guard	0.85	•	•	•	Std	•	•	•
N/A	N/A	–	–	Fire Guard	0.85	•	•	•	Std	Std	•	•

SUSPENSION SYSTEMS



PHYSICAL DATA

Material
Wet-formed mineral fiber

Surface Finish
Factory-applied latex paint

Fire Performance
ASTM E84 and CAN/ULC S102 surface burning characteristics. Flame Spread Index 25 or less. Smoke Developed Index 50 or less. (UL labeled). Fire Guard: A fire-resistive ceiling when used in applicable UL assemblies.

ASTM E1264 Classification
Type III, Form 2, Pattern C E
Fire Class A

Humidity/Sag Resistance
HumiGuard® Plus ceiling tiles maintain superior sag resistance. Recommended for areas subject to high humidity, up to, but not including, standing water and outdoor applications. Excluding Item 1738 and other sizes.

Anti-Mold/Mildew

Ceiling panels with BioBlock® coating contain a mold-inhibiting agent that resists the growth of mold and mildew.

VOC Emissions

Third-party certified compliant with California Department of Public Health CDPH/EHLB/Standard Method Version 1.1, 2010. This standard is the guideline for low emissions in LEED, CalGreen Title 24, ANSI/ASHRAE/USGBC/IES Standard 189; ANSI/GBI Green Building Assessment Protocol. (Except 1728, 1729 in colors)

Acoustical Performance

CAC testing conducted using Prelude XL suspension system.

Primary (Embodied) Energy

See all LCA information on our EPD's.

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.

Insulation Value

Square Lay-in Items
R Factor – 1.5 (BTU units)
R Factor – 0.26 (Watts units)

30-Year Performance Guarantee & Warranty

When installed with Armstrong® Suspension System. Details at armstrongceilings.com/warranty (Excludes item 1738 and other sizes)

Weight; Square Feet/Carton

1728 – 0.70 lbs/SF; 64 SF/ctn	1830, 1831 – 1.05 lbs/SF; 64 SF/ctn
1729 – 0.70 lbs/SF; 96 SF/ctn	1713, 1810 – 1.31 lbs/SF; 48 SF/ctn
1738 – 0.80 lbs/SF; 75 SF/ctn	1714, 1811 – 1.38 lbs/SF; 64 SF/ctn
1736, 1737 – 0.93 lbs/SF; 100 SF/ctn	
1754 – 1.08 lbs/SF; 40 SF/ctn	
1755 – 1.08 lbs/SF; 48 SF/ctn	

Minimum Order Quantity

1 carton, excludes other size panels

Metric Items Available

465M, 466M, 1728M, 1729M, 1736M, 1737M, 1738M, 1754M, 1755M, 1810M, 1811M, 1830M, 1831M – Metric items are subject to extended lead times and minimum quantities. Contact your representative for more details.

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armstrongceilings.com/commceilings
(search: fine fissured)
BPCS-3227-915

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Armstrong®
CEILING SOLUTIONS

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MINERAL FIBER



UP TO **63%** RECYCLED CONTENT
armstrong.com/greengenie

LEED®

construction waste mgmt
recycled content
regional materials*

*LOCATION DEPENDENT

PRELUDE® XL® and PRELUDE XL High Recycled Content (HRC) 15/16" Exposed Tee System



KEY SELECTION ATTRIBUTES

- **Seismic Rx®** Suspension System saves time and money; Armstrong offers an ICC-ES approach to installations (ESR-1308)
- **PeakForm®** profile increases strength and stability for improved performance during installation
- **SuperLock™** main beam clip is engineered for a strong, secure connection and fast accurate alignment confirmed with an audible click; easy to remove/relocate
- Hot dipped galvanized coating inhibits red rusting better than electrogalvanized or painted systems
- 10-Year Limited System Warranty; 30-Year Limited Ceiling Systems Warranty when used with **HumiGuard® Plus** products
- **FastSize™** main beams and cross tees can be ordered with special sizing and route spacing for your project needs in one carton minimums with two week lead times
- Rotary-stitched during manufacture for additional torsional strength and extra stability during installation
- XL² staked-on end detail provides secure locked connection; easy to remove, reuse, and relocate
- Fire Guard™ options offer UL design fire-rated performance
- Some items available in metric sizes

TYPICAL APPLICATIONS

- Retail
- Education
- Healthcare
- Offices
- Hospitality
- **Blizzard White** powder-coated finish coordinates with Optima®, Ultima®, Calla™, and Lyra™ ceiling panels for a clean, seamless, monolithic installed visual.
- Linear lighting integration is easy with made-to-order main beam-to-cross tee adapters, route spacing, miter spacing, and short cross tees (3" to 6" lengths).

VISUAL SELECTION

PERFORMANCE

Item No.*	Face Profile	Description	Route Spacing	Dimensions (Inches)	Load Test Data (Lbs./Lin. Ft.)		Fire Guard™ 	Seismic Category 	Packaging	
					L/360	L/240			Pcs./ Ctn.	Lin. Ft./ Ctn.
Prelude XL (Red Numbers are Fire Guard Items)					4 Ft.	5 Ft.	Dots represent high level of performance.			
<input type="checkbox"/> 7301_ _ ♦	15/16"	12' HD Main Beam	6" O.C.	144 x 15/16 x 1-11/16"	16.73	8.73	-	•	20	240
<input type="checkbox"/> 7301HRC							-	•	20	240
<input type="checkbox"/> 8301							•	•	20	240
<input type="checkbox"/> 7300_ _ ♦	15/16"	12' ID Main Beam	6" O.C.	144 x 15/16 x 1-11/16"	13.5	6.35	-	-	20	240
<input type="checkbox"/> 8300_ _ ♦							•	-	20	240
<input type="checkbox"/> 7305_ _ ♦	15/16"	140" ID Main Beam	10" O.C.	140 x 15/16 x 1-11/16"	10.73	8.73	-	-	20	233
<input type="checkbox"/> 7306_ _ ♦	15/16"	132" HD Main Beam	10", 30", 50", 56", 76", 96", 116", 122"	132 x 15/16 x 1-11/16"	16.73	8.73	-	•	20	220
<input type="checkbox"/> 7307_ _ ♦	15/16"	126" HD Main Beam	10", 30", 50", 70", 90", 110", 116"	126 x 15/16 x 1-11/16"	-	-	-	•	20	210
<input type="checkbox"/> 7302_ _ ♦	15/16"	10' ID Main Beam	6" O.C.	120 x 15/16 x 1-11/16"	13.5	6.35	-	-	20	200
<input type="checkbox"/> XL7380_ _ ♦	15/16"	8' Cross Tee	12" O.C.	96 x 15/16 x 1-11/16"	12.12**	-	-	•	20	160
<input type="checkbox"/> XL7390_ _ ♦	15/16"	6' Cross Tee	12" O.C.	72 x 15/16 x 1-11/16"	12.24*	-	-	•	20	120
<input type="checkbox"/> XL7357_ _ ♦	15/16"	5' Cross Tee	6" O.C.	60 x 15/16 x 1-11/16"	-	7.61	-	•	60	300
<input type="checkbox"/> XL7358_ _ ♦	15/16"	5' Cross Tee	20" O.C.	60 x 15/16 x 1-11/16"	-	7.61	-	•	60	300
<input type="checkbox"/> XL7341_ _ ♦	15/16"	4' Cross Tee	12" O.C.	48 x 15/16 x 1-11/16"	16.89	-	-	•	60	240
<input type="checkbox"/> XL7341HRC							-	•	60	240
<input type="checkbox"/> XL8341							•	•	60	240
<input type="checkbox"/> XL7340_ _ ♦	15/16"	4' Cross Tee	12" O.C.	48 x 15/16 x 1-11/16"	12.25	-	-	•	60	240
<input type="checkbox"/> XL8340_ _ ♦							•	•	60	240
<input type="checkbox"/> XL7342_ _ ♦	15/16"	4' Cross Tee	12" O.C.	48 x 15/16 x 1-1/2"	7.8	-	-	•	60	240
<input type="checkbox"/> XL7348_ _ ♦	15/16"	4' Cross Tee	12"	48 x 15/16 x 1-3/8"	6.78	-	-	•	60	240
<input type="checkbox"/> XL7330_ _ ♦	15/16"	3' Cross Tee	-	36 x 15/16 x 1-11/16"	20.3 @ 3'	-	-	•	60	180
<input type="checkbox"/> XL7378_ _ ♦	15/16"	30" Cross Tee	-	30 x 15/16 x 1-3/8"	16.54 @ 2.5'	-	-	•	60	150
<input type="checkbox"/> XL7328_ _ ♦	15/16"	2' Cross Tee	-	24 x 15/16 x 1-3/8"	36.0 @ 2'	-	-	•	60	120
<input type="checkbox"/> XL8323_ _ ♦							•	•	60	120
<input type="checkbox"/> XL8320HRC	15/16"	2' Cross Tee	-	24 x 15/16 x 1-11/16"	61.33 @ 2'	-	-	•	60	120
<input type="checkbox"/> XL8320							•	•	60	120
<input type="checkbox"/> XL7368_ _ ♦	15/16"	20" Cross Tee	-	20 x 15/16 x 1-3/8"	36.0 @ 1.67'	-	-	•	60	100
<input type="checkbox"/> XL7398_ _ ♦	15/16"	18" Cross Tee	-	18 x 15/16 x 1-3/8"	-	-	-	•	60	90
<input type="checkbox"/> XL7318_ _ ♦	15/16"	1' Cross Tee	-	12 x 15/16 x 1-3/8"	36.0 @ 1'	-	-	•	120	120
<input type="checkbox"/> XL7304_ _ ♦	15/16"	4" Cross Tee	-	4 x 15/16 x 1-3/8"	-	-	-	•	60	20
<input type="checkbox"/> FastSize™ NEW	15/16"	Main beams L: 36" - 144" / Cross tees L: 6" - 144" / Route spacing 3" from ends, 6" thereafter							Varies	Varies

* Simple Span
 ** Hanger Wire Support Mid-Span
 ♦ Items available in Standard, Premium, and Blizzard White powder-coated finish
 ♦ Items available in Blizzard White powder-coated finish only
 When specifying or ordering items with a color or finish, add the two-letter suffix to the end of the item number (e.g., 7301HA - Haze)

ASTM Class
 HD - Heavy-duty
 ID - Intermediate-duty
 LD - Light-duty

NOTE: Additional Prelude XL items for TechZone™ Ceiling Systems are listed in the TechZone Technical Guide (BPCS-4486). Available online at armstrong.com/techzone



PRELUDE® XL® and PRELUDE XL High Recycled Content (HRC) 15/16" Exposed Tee System

VISUAL SELECTION

PACKAGING

Item No.♦	Description	Length	(A) Flange	(B) Flange	(C) Flange	Pcs./ Ctn.	Lin. Ft./ Ctn.
Suggested Wall Moldings and Shadow Moldings							
<input type="checkbox"/> 7800_♦ <input type="checkbox"/> 7800HRC	12' Hemmed Angle Molding	144"	7/8"	7/8"	–	30	360
<input type="checkbox"/> 7808_♦	10' Hemmed Angle Molding	120"	2"	2"	–	10	100
<input type="checkbox"/> 780812_♦	12' Hemmed Angle Molding	144"	2"	2"	–	10	120
<input type="checkbox"/> 7807	10' Hemmed Angle Molding	120"	2"	1"	–	10	100
<input type="checkbox"/> 7875_♦	10' Shadow Molding	120"	3/4"	15/16"	1/2"	30	300
<input type="checkbox"/> 7877_♦***	10' Shadow Molding	120"	15/16"	15/16"	1/4"	30	300
<input type="checkbox"/> 7878_♦***	10' Shadow Molding	120"	15/16"	15/16"	3/8"	30	300
<input type="checkbox"/> 7897_♦***	10' Shadow Molding	120"	15/16"	15/16"	1/2"	30	300

- *** Suitable for IBC Category D,E,F installations using Armstrong Seismic Rx® and BERC2 Clip
- ♦ Items available in Standard, Premium, and Blizzard White powder-coated finish
- ♦ Items available in Blizzard White powder-coated finish only
- When specifying or ordering items with a color or finish, add the two-letter suffix to the end of the item number (e.g., 7301HA – Haze)

MAXIMUM FIXTURE WEIGHT

Configuration		Item No.	Fixture		Planning Module		Hanger Spacing		Maximum Weight	
A	B		A	B	A	B	A	B	A	B
Main Beam to Main Beam – Drawing Key: Main beam (↑) Cross tee (–) Hanger wire (↕)										
		7300/8300/7302 7301/8301	24" x 48"	24" x 48"	48" x 48"	48" x 48"	48"	48"	69.27 lbs.	49.27 lbs.
			24" x 48"	24" x 48"	48" x 48"	48" x 48"	48"	48"	72.32 lbs.	72.32 lbs.
		7300/8300/7302 7301/8301	12" x 48"	12" x 48"	48" x 48"	48" x 48"	48"	48"	54.26 lbs.	47.17 lbs.
			12" x 48"	12" x 48"	48" x 48"	48" x 48"	48"	48"	100.0 lbs.	63.32 lbs.
		7300/8300/7305 7301/8301	24" x 48"	20" x 60"	60" x 60"	60" x 60"	48"	48"	56.47 lbs.	43.21 lbs.
			24" x 48"	20" x 60"	60" x 60"	60" x 60"	48"	48"	56.47 lbs.	65.46 lbs.

Main beams tested as follows: 7300 tested at 13.0 lbs./LF to 1/360 of 4' span; 7301 tested at 16.5 lbs./LF to 1/360 of 4' span.

Cross Tee to Cross Tee – Drawing Key: Main beam (↑) Cross tee (–) Hanger wire (↕)

		XL8340/XL7340 XL7342 XL8341/XL7341	24" x 48"	24" x 24"	64" x 60"	48" x 48"	48"	48"	69.27 lbs.	80.55 lbs.
			24" x 48"	24" x 24"	64" x 60"	48" x 48"	48"	48"	40.89 lbs.	52.26 lbs.
			24" x 48"	24" x 24"	64" x 60"	48" x 48"	48"	48"	81.67 lbs.	100.0 lbs.
		XL8340/XL7340 XL8341/XL7341	24" x 48"	12" x 48"	48" x 48"	48" x 48"	48"	48"	49.27 lbs.	42.17 lbs.
			24" x 48"	12" x 48"	48" x 48"	48" x 48"	48"	48"	72.32 lbs.	63.32 lbs.

Fixtures weighing more than 56 lbs. should be independently supported. Fixture weight is based on single fixture only. For end-to-end fixtures or other configurations not shown, consult your Armstrong representative.
NOTE: The above data is based on 48" hanger wire spacing, board weight of 1 lb./SF, maximum deflection of tees not to exceed 1/360 of the span, and suspension system installed in accordance with ASTM C636.

PRELUDE® XL® and PRELUDE XL High Recycled Content (HRC) 15/16" Exposed Tee System

COLOR AND FINISH SELECTION

Standard



Premium



Powder-coated Finish*



†† Capping only

††† Peel-off protective film on exposed surfaces to protect from scuffing or marking during installation

NOTE: Items 8300, XL8340, XL8323 available in Black (BL) or White (WH) only.

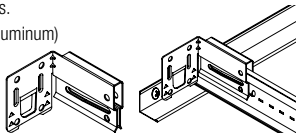
* Items available in powder-coated finish

When specifying or ordering items with a color or finish, add the two-letter suffix to the end of the item number (e.g., 7301HA – Haze)

ACCESSORIES

BERC2 – 2" Beam End Retaining Clip – Allows you to create a code compliant Seismic D, E, F ceiling installation while eliminating the need to use 2" wall molding or spreader bars.

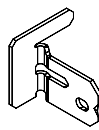
ALBERC2 (aluminum)



- BERC2 (Steel) – 200 pcs
- FZBERC2 (Steel) – 50 pcs

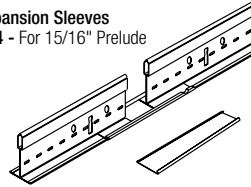
- ALBERC2 (Aluminum) – 200 pcs
- FZALBERC2 (Aluminum) – 50 pcs

STAC – Single Tee Adapter Clip – Used to create code compliant non-seismic and seismic C and D, E, F off-module main beam to cross tee connections.



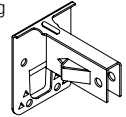
- STAC – 120 pcs
- FZSTAC – 50 pcs

Expansion Sleeves
ES4 - For 15/16" Prelude



- ES4 – 200 pcs
- FZES4 – 50 pcs

GCWA – Grip Clip Wall Attachment – Joins main beam or cross tee to wall molding via locking bars without pop rivets or screws.

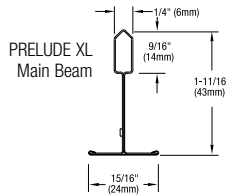


- GCWA – 250 pcs
- FZGCWA – 50 pcs

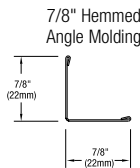
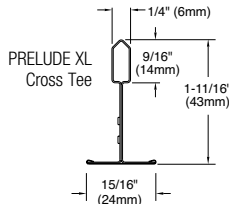
DETAILS



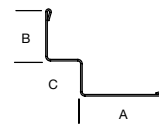
PRELUDE XL Main Beam



PRELUDE XL Cross Tee



Shadow Molding



SEISMIC PERFORMANCE

Main Beams

7301, 7301HRC, 7306, 7307, 8301

Minimum Lbs. To Pull Out Compression/Tension

335.0

330.0

Cross Tees

All XL cross tees exceed 300 lbs. in both compression and tension.

ICC Reports

For areas under ICC jurisdiction, see ICC evaluation report number ESR-1308 for allowable values and/or conditions of use concerning the suspension system components listed on this page. The report is subject to reexamination, revisions, and possible cancellation.

PHYSICAL DATA

Material

Hot dipped galvanized steel

Surface Finish

Baked polyester paint or powder coated

Face Dimension

15/16"

Profile

Exposed tee

Cross Tee/Main Beam Interface

Override

End Detail

Main Beam: Staked-on clip

Cross Tee: Staked-on clip

Duty Classification

Intermediate or Heavy-duty



PRELUDE® XL® and PRELUDE XL High Recycled Content (HRC) Blizzard White – Powder-coated Finish



Optima® Tegular 24" x 72" with Interlude® suspension system featuring Blizzard White powder-coated finish

NOW AVAILABLE – BLIZZARD WHITE POWDER-COATED FINISH

- Choose the new Blizzard White powder coated finish for a clean, monolithic installed visual that looks great with Optima, Ultima®, Calla™, and Lyra™ ceiling panels.

TechLineSM / 1 877 ARMSTRONG
1 877 276 7876



armstrong.com/suspensionsystem
BPCS-3344-115

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FORMATIONSTM

Floating
Clouds

Inspiring Great Spaces[®]

Armstrong[®]
CEILING & WALL SOLUTIONS

RAISING The Standard

Formations™ Cloud Kits give you a great custom look using standard components – eliminating the hassle, cost, and risk associated with custom installations. Panel options offer great spot acoustics, too. Formations cloud kits make installing clouds quick and easy!

Formations™ Clouds with
ULTIMA® Tegular panels
and Axiom® 4" Classic trim



5
Creating a
Cloud Kit



9
FORMATIONS™
Circles



10
FORMATIONS™
Squares/
Rectangles



11
FORMATIONS™
Staggered



13
FORMATIONS™
Planks



14
FORMATIONS™
for Drywall



15
FORMATIONS™
with Integrated
Lighting





For Every Space

With a wide variety of options – including configurations, panels, sizes, trim color, lighting, and applications – the possibilities are endless.

Great Acoustics

Formations cloud kits with acoustical panels provide greater sound absorption than a continuous ceiling of the same area.

Fewer Wires

Kits come complete with our proven StrongBack™ carrying channel, which eliminates 40% of the cables – minimizing visible wires.

Faster Installation




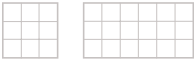

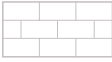

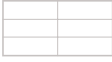




Aircraft cable allows for easy floor level installation – kits assemble and install up to 50% faster than stick built clouds.

FORMATIONS™

Cloud Kits

Formations Cloud Kits Make it Easy to Create Unique Ceiling Designs

1 Start by choosing the FORMATIONS cloud type that fits your design vision.

CLOUD TYPE	DESCRIPTION
 <p>FORMATIONS™ Curves</p> 	<p>Soften and quiet an open room design by adding a few curves.</p> <ul style="list-style-type: none"> • 16 suspension system/trim colors • 3 standard trim heights • 16 shapes and sizes
 <p>FORMATIONS™ Squares/Rectangles</p> 	<p>Create a bold, captivating ceiling design with outstanding sound absorption.</p> <ul style="list-style-type: none"> • 16 suspension system/trim colors • 3 standard trim heights • 15 shapes and sizes
 <p>FORMATIONS™ Staggered</p> 	<p>Create visually interesting clouds the easy way.</p> <ul style="list-style-type: none"> • 16 suspension system/trim colors • 3 standard trim heights • 78 shapes and sizes
 <p>FORMATIONS™ Planks</p> 	<p>Reduce the amount of visible suspension and create a sleek, clean look.</p> <ul style="list-style-type: none"> • 16 suspension system/trim colors • 3 standard trim heights • 30 shapes and sizes
 <p>FORMATIONS™ for Drywall</p> 	<p>Improved floating visual compared to field constructed track and channeled clouds.</p> <ul style="list-style-type: none"> • 3 standard trim heights • 21 shapes and sizes
 <p>FORMATIONS™ with Integrated Lighting</p> 	<p>Distribute safe, low-voltage direct current electrical power through the acoustical ceiling suspension system (grid) for more efficient lighting.</p> <ul style="list-style-type: none"> • 2 standard trim heights • 3 suspension systems • 4 shapes and sizes

FORMATIONS™ Cloud Kits

2 Select a ceiling panel that works with your cloud.

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

Curves

OPTIMA®/ULTIMA® Tegular and Vector® Panels



OPTIMA
Tegular &
Vector



ULTIMA
Tegular &
Vector

NOTE: ULTIMA and OPTIMA Vector are the only available factory-cut curved panels. Other 2' x 2' mineral fiber/fiberglass panels may be used but may require field cutting. For other non-standard acoustical options, see pages 20-21.

Staggered & Planks

OPTIMA® Vector® Panels



OPTIMA
Vector

Squares

CALLA®/LYRA®/OPTIMA/ULTIMA/CIRRUS®/CORTEGA®/DUNE™/FINE FISSURED™ Tegular, Vector®, and Square Lay-in Panels



CALLA
Square Lay-in,
Tegular &
Vector



LYRA
Tegular
& Vector



OPTIMA
Tegular &
Vector



ULTIMA
Tegular &
Vector



CIRRUS
Tegular



CORTEGA
Tegular



DUNE
Tegular



FINE FISSURED
Tegular

ULTIMA® Health Zone™ Create!™ Lay-in Panels



Bamboo
(BA)



Barnwood
(BW)



Light Cherry
(LC)



Oak
(OK)



Walnut
(WN)



RAL and Custom
Colors Available

For more information on Create!,
visit armstrongceilings.com/create

METALWORKS™ Square Tegular and Vector Panels



Micro-
perforated



Extra Micro-
perforated



White
(WH)



Silver Grey
(SG)



Gun Metal
Grey (MY)



Effects™ Maple
(FXMP)



Effects Cherry
(FXCH)



Effects Dark
Cherry (FXDC)



Effects Walnut
(FXWN)



Effects Oak
(FXOK)



Effects Walnut
Espresso
(FXWE)

NOTE: Effects colors are only available for extra microperforated panels.
Solid wood panels cannot be used for clouds.

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

Squares

METALWORKS Tin Tegular and Vector Panels (10 available)



White
(TWH)



Chrome
(TAM)



Lacquered
Steel (TLS)



Copper
(TCP)



METALWORKS Mesh Lay-in Panels (24 available)



White
(TWH)



Silver Grey
(SG)



Gun Metal
Grey (MY)



Tech Black
(BL)



Nickle Chrome
(NC)



Bronze
(BZ)



Copper
(CP)

INFUSIONS® Lay-in Panels

Lay-in Color Choices (38 available)



Splash Lagoon
(FZTRL)



Splash
Tangerine
(FZTRI)



Clear Arbor
(TCA)



Blue Arbor
(TBA)

WOODWORKS® Grille Tegular Panels (3 panel designs)

Open Cell Vector Panels (5 panel designs)



Grille Maple
(GMP)



Grille Light
Cherry (GLC)



Grille Dark
Cherry (GDC)



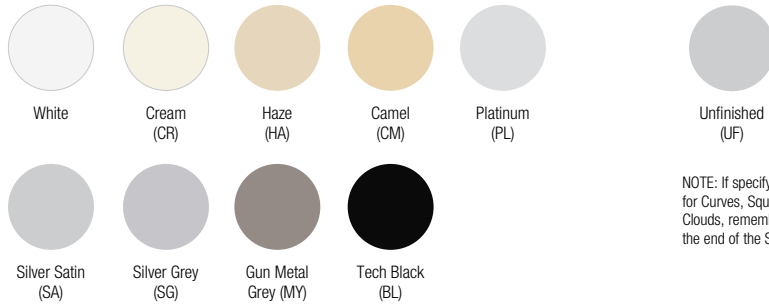
Grille Walnut
(GWN)

NOTE: For a complete list of panels, visit armstrongceilings.com/metalworks;
armstrongceilings.com/infusions; armstrongceilings.com/woodworks

3 Select your suspension system and trim colors.

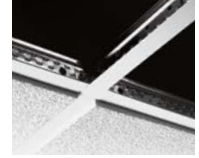
COLOR SELECTION Due to printing limitations, shade may vary from actual product.

Suspension System / AXIOM® Trim Colors



NOTE: If specifying a color other than White for Curves, Squares, Planks, or Staggered Clouds, remember to add the color suffix at the end of the Suspension Kit item number.

SUSPENSION SYSTEMS



PRELUDE® 15/16" suspension system included in all kits (except Drywall)



Drywall 1-1/2" suspension system

COLORATIONS® Colors

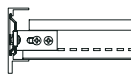


† Use BL suffix for suspension systems and Axiom

4 Select your AXIOM® trim profile and height.

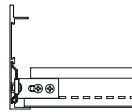
AXIOM® TRIM TYPES

AXIOM® Vector® for FORMATIONS™



2", 4", and 6" heights

AXIOM® Vector® (Inverted) for FORMATIONS™



2", 4", and 6" heights

AXIOM® Knife Edge® for FORMATIONS™



AXIOM® Knife Edge® Vector® for FORMATIONS™



AXIOM TRIM PROFILE OPTIONS



AXIOM® for FORMATIONS™ Vector® trim (available in 2", 4", and 6" heights)



Vector panel with AXIOM® for FORMATIONS™ Vector® trim (available in 2", 4", and 6" heights)



Regular panel with inverted AXIOM® for FORMATIONS™ Vector® trim (available in 2", 4", and 6" heights)



Regular panel with AXIOM® for FORMATIONS™ Knife Edge® for Vector® trim



Vector panel with AXIOM® for FORMATIONS™ Knife Edge® for Vector® trim


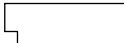


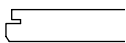
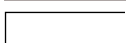
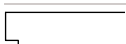


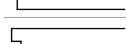



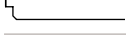


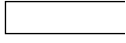
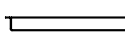
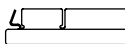
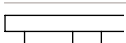




AXIOM® trims and transitions customer service is available to help with your project from start to finish. Call 1 800 840 8521.

View installation videos or download CAD, Revit®, and SketchUp® files at armstrongceilings.com/formations

FORMATIONS™ Cloud Kits

COMPATIBLE CEILING PANELS

Trim Choices:

Edge Profile	Panel	AXIOM® Vector® Available in 2", 4", and 6" heights	AXIOM® Vector® (Inverted) Available in 2", 4", and 6" heights	AXIOM® Knife Edge®	AXIOM® Knife Edge® Vector®
FORMATIONS™ Curves					
	Lay-in	–	•	–	–
	OPTIMA® Square Tegular	–	–	–	–
	OPTIMA® Vector® (Factory-cut)	•	–	–	–
	ULTIMA® Beveled Tegular	–	•	–	–
	ULTIMA® Vector (Factory-cut)	•	–	–	–
FORMATIONS™ Squares					
	Lay-in	–	•	•	–
	CALLA® Square Tegular	•	•	•	•
	CALLA® Vector (Factory-cut)	•	–	–	•
	LYRA® Square Tegular	•	•	•	•
	LYRA® Vector (Factory-cut)	•	–	–	•
	OPTIMA® Square Tegular	•	•	•	•
	OPTIMA® Vector (Factory-cut)	•	–	–	•
	ULTIMA® Beveled Tegular	•	•	•	•
	ULTIMA® Vector (Factory-cut)	•	–	–	•
	CIRRUS®/CORTEGA®/DUNE™/ FINE FISSURED™ Angled Tegular	–	•	•	–
	ULTIMA® Health Zone™ Create!™ Square Lay-in	–	•	•	–
	METALWORKS™ Square Tegular	•	•	•	•
	METALWORKS™ Vector	•	–	–	•
	WOODWORKS® Grille Tegular	•	•	•	•
	WOODWORKS® Open Cell Vector	•	–	–	–
	INFUSIONS® Lay-in	•	•	•	•
FORMATIONS™ Planks & Staggered					
	OPTIMA® Vector	•	–	–	–
FORMATIONS™ for Drywall					
	N/A	AXIOM® One-piece Drywall Trim			
FORMATIONS™ with Integrated Lighting					
	OPTIMA® Square Tegular	•	–	–	–
	ULTIMA® Beveled Tegular	•	–	–	–

FORMATIONS™ Curves Cloud Kits

5 Specify kits, colors, and panel selections.

HOW TO SPECIFY

Based on the cloud size and shape you choose, you need to specify and order the suspension and trim kit item number, the special factory-cut curved Vector® panel kit number, and any extra cartons of the infill panels you may need.

Standard circle and rounded square clouds feature 15/16" PRELUDE® suspension system and your choice of 2", 4", or 6" high AXIOM® Vector® trim.

EXAMPLE:

C4VES 0606C __ __

4" High 6' x 6' Color
AXIOM® Cloud Suffix*
Vector
Trim

Also order OPTIMA® Vector®
Curves Panel Kit: 3970

Custom options available
that include a wide range
of AXIOM® trim and suspension
system options.

* If specifying a color other than
White, remember to add the color
suffix at the end of the Suspension
Kit item number.

VISUAL SELECTION

Cloud Size		Suspension Item No. (Axiom Trim & Suspension System)
Curves		15/16" Prelude
6' Circle		C_VES0606C __ __
6' x 8' Oval		C_VES0608 __ __
6' x 10' Oval		C_VES0610 __ __
6' x 12' Oval		C_VES0612 __ __
6' x 14' Oval		C_VES0614 __ __
8' Circle		C_VES0808C __ __
8' x 8' Rounded Square		C_VES0808 __ __
8' x 10' Rounded Square		C_VES0810 __ __
8' x 12' Rounded Square		C_VES0812 __ __
8' x 14' Rounded Square		C_VES0814 __ __
10' Circle		C_VES1010C __ __
10' x 10' Rounded Square		C_VES1010 __ __
10' x 12' Rounded Square		C_VES1012 __ __
10' x 14' Rounded Square		C_VES1014 __ __
11'-5" Circle		C_VES1212C __ __
12' x 12' Rounded Square		C_VES1212 __ __
12' x 14' Rounded Square		C_VES1214 __ __
14' Circle		C_VES1414C __ __
14' x 14' Rounded Square		C_VES1414 __ __

PANEL SELECTION

OPTIMA® Vector® Factory-cut Curved Panels

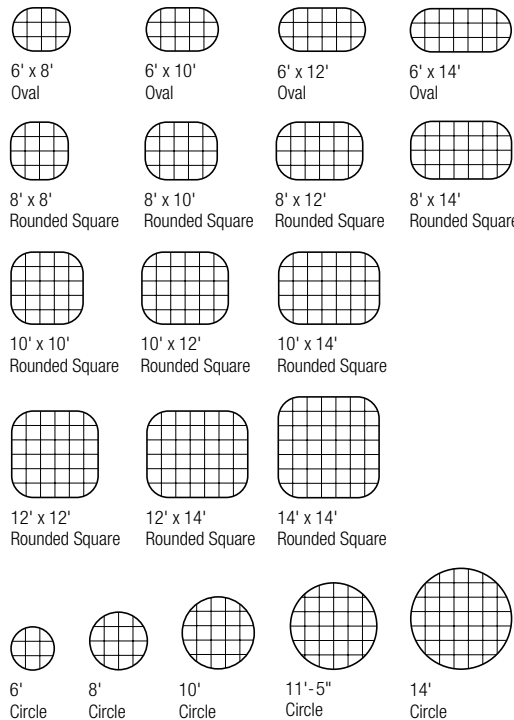
Item No.	Cartons Required	Required Extra Item 3900 2' x 2' (Ctns)
3970	1	0
3971	1	1
3971	1	1
3971	1	1
3971	1	1
3973	1	1
3972	1	1
3972	1	1
3972	1	1
3972	1	2
3974	2	1
3972	1	2
3972	1	2
3972	1	2
3972	1	2
3972	1	2
3972	1	2
3972	1	3
3972	1	3
3972	1	4

ULTIMA® Vector® Factory-cut Curved Panels

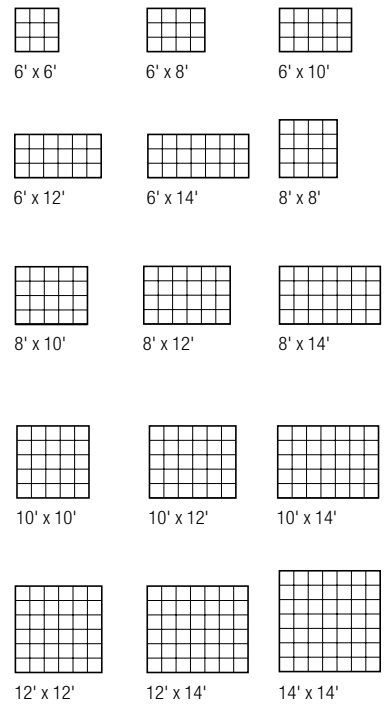
Item No.	Cartons Required	Required Extra Item 1920 2' x 2' (Ctns)
1970	1	0
1971	1	1
1971	1	1
1971	1	1
1971	1	1
1973	1	1
1972	1	1
1972	1	1
1972	1	1
1972	1	2
1974	2	1
1972	1	2
1972	1	2
1972	1	2
1972	1	2
1972	1	2
1972	1	2
1972	1	3
1972	1	3
1972	1	4

CLOUD SHAPE AND SIZE SELECTION

Curves



Squares



FORMATIONS™ Square/Rectangle Cloud Kits

5 Specify kits, colors, and panel selections.

HOW TO SPECIFY

Based on the cloud size and shape you choose, you need to specify and order the suspension and trim kit item number and the panel item number you select.

Standard square and rectangle clouds feature 15/16" PRELUDE® suspension system and your choice of 2", 4", or 6" high AXIOM® Vector® trim, AXIOM® Knife Edge® Tegular or Vector® trim.

EXAMPLE:

C4VEA 0606 __ __

4" High 6' x 6' Color
AXIOM® Cloud Suffix*
Vector
Trim

Also order OPTIMA® Vector® Squares Panel Kit: 3900 (2' x 2' panels – 1 carton).

Custom options available that include a wide range of AXIOM® trim and suspension system options.

* If specifying a color other than White, remember to add the color suffix at the end of the Suspension Kit item number.

VISUAL SELECTION

Cloud Size	AXIOM® Profile	Suspension Item No. (AXIOM® Trim & Suspension System)
Squares/Rectangles 15/16" Prelude		
6' x 6'	Vector®	C _ VEA0606 __ __
	Knife Edge® Tegular	CKETA0606 __ __
	Knife Edge® Vector	CKEVA0606 __ __
6' x 8'	Vector®	C _ VEA0608 __ __
	Knife Edge® Tegular	CKETA0608 __ __
	Knife Edge® Vector	CKEVA0608 __ __
6' x 10'	Vector®	C _ VEA0610 __ __
	Knife Edge® Tegular	CKETA0610 __ __
	Knife Edge® Vector	CKEVA0610 __ __
6' x 12'	Vector®	C _ VEA0612 __ __
	Knife Edge® Tegular	CKETA0612 __ __
	Knife Edge® Vector	CKEVA0612 __ __
6' x 14'	Vector®	C _ VEA0614 __ __
	Knife Edge® Tegular	CKETA0614 __ __
	Knife Edge® Vector	CKEVA0614 __ __
8' x 8'	Vector®	C _ VEA0808 __ __
	Knife Edge® Tegular	CKETA0808 __ __
	Knife Edge® Vector	CKEVA0808 __ __
8' x 10'	Vector®	C _ VEA0810 __ __
	Knife Edge® Tegular	CKETA0810 __ __
	Knife Edge® Vector	CKEVA0810 __ __
8' x 12'	Vector®	C _ VEA0812 __ __
	Knife Edge® Tegular	CKETA0812 __ __
	Knife Edge® Vector	CKEVA0812 __ __
8' x 14'	Vector®	C _ VEA0814 __ __
	Knife Edge® Tegular	CKETA0814 __ __
	Knife Edge® Vector	CKEVA0814 __ __
10' x 10'	Vector®	C _ VEA1010 __ __
	Knife Edge® Tegular	CKETA1010 __ __
	Knife Edge® Vector	CKEVA1010 __ __
10' x 12'	Vector®	C _ VEA1012 __ __
	Knife Edge® Tegular	CKETA1012 __ __
	Knife Edge® Vector	CKEVA1012 __ __
10' x 14'	Vector®	C _ VEA1014 __ __
	Knife Edge® Tegular	CKETA1014 __ __
	Knife Edge® Vector	CKEVA1014 __ __
12' x 12'	Vector®	C _ VEA1212 __ __
	Knife Edge® Tegular	CKETA1212 __ __
	Knife Edge® Vector	CKEVA1212 __ __
12' x 14'	Vector®	C _ VEA1214 __ __
	Knife Edge® Tegular	CKETA1214 __ __
	Knife Edge® Vector	CKEVA1214 __ __
14' x 14'	Vector®	C _ VEA1414 __ __
	Knife Edge® Tegular	CKETA1414 __ __
	Knife Edge® Vector	CKEVA1414 __ __

PANEL SELECTION

OPTIMA® Vector Panels	ULTIMA® Vector Panels	OPTIMA® Tegular Panels	ULTIMA® Tegular Panels
Item 3900 (Ctns)	Item 1920 (Ctns)	Items 3250, 3354, 3253 (Ctns)	Item 1911 (Ctns)
1	1	1*	1*
–	–	1	1
1	1	–	–
1	1	1*	1*
–	–	1	1
1	1	–	–
2	2	1*	2*
–	–	1	2
2	2	–	–
2	2	1*	2*
–	–	1	2
2	2	–	–
2	2	1*	2*
–	–	1	2
2	2	–	–
2	2	1*	2*
–	–	1	2
2	2	–	–
2	2	1*	3*
–	–	1	3
2	2	–	–
2	3	2*	3*
–	–	2	3
2	3	–	–
3	3	2*	3*
–	–	2	3
3	3	–	–
3	3	2*	3*
–	–	2	3
3	3	–	–
4	4	2*	4*
–	–	2	4
4	4	–	–
5	5	3*	5*
–	–	3	5
5	5	–	–

MORE PANEL OPTIONS

Place these panel orders with Armstrong Customer Service - 1 877 276 7876

Panel options featured on pg. 7

- CALLA®
- CIRRUS®
- CORTEGA®
- DUNE™
- FINE FISSURED™
- LYRA® / LYRA® Vector®
- ULTIMA® Health Zone™ Create!™
- METALWORKS™ Tegular
- METALWORKS™ Vector®
- METALWORKS™ Tin
- METALWORKS™ Mesh
- INFUSIONS®
- WOODWORKS® Grille
- WOODWORKS® Open Cell







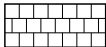





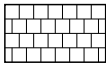
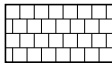




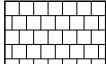
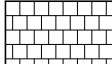





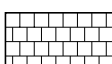




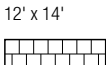
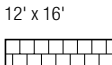




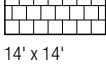
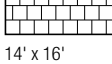
* These items use AXIOM® for FORMATIONS™ Vector® trim (inverted).

FORMATIONS™






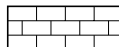




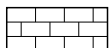
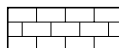




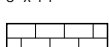
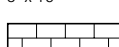




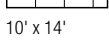
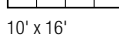












Staggered Cloud Kits

STAGGERED CLOUD SHAPE AND SIZE SELECTION

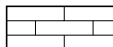
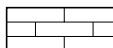
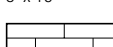
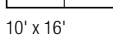
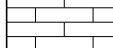
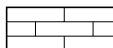
1' x 2' / 2' x 2' Panels

 6' x 6'	 6' x 8'	 6' x 10'	 6' x 12'	 6' x 14'	 6' x 16'
 8' x 6'	 8' x 8'	 8' x 10'	 8' x 12'	 8' x 14'	 8' x 16'
 10' x 6'	 10' x 8'	 10' x 10'	 10' x 12'	 10' x 14'	 10' x 16'
 12' x 6'	 12' x 8'	 12' x 10'	 12' x 12'	 12' x 14'	 12' x 16'
 14' x 6'	 14' x 8'	 14' x 10'	 14' x 12'	 14' x 14'	 14' x 16'
 16' x 6'	 16' x 8'	 16' x 10'	 16' x 12'	 16' x 14'	 16' x 16'

2' x 2' / 2' x 4' Panels

 6' x 6'	 6' x 8'	 6' x 10'	 6' x 12'	 6' x 14'	 6' x 16'
 8' x 6'	 8' x 8'	 8' x 10'	 8' x 12'	 8' x 14'	 8' x 16'
 10' x 6'	 10' x 8'	 10' x 10'	 10' x 12'	 10' x 14'	 10' x 16'
 12' x 6'	 12' x 8'	 12' x 10'	 12' x 12'	 12' x 14'	 12' x 16'
 14' x 6'	 14' x 8'	 14' x 10'	 14' x 12'	 14' x 14'	 14' x 16'
 16' x 6'	 16' x 8'	 16' x 10'	 16' x 12'	 16' x 14'	 16' x 16'

2' x 4' / 2' x 8' Panels

 6' x 16'
 8' x 16'
 10' x 16'
 12' x 16'
 14' x 16'
 16' x 16'

FORMATIONS™ Planks Cloud Kits

5 Specify kits, colors, and panel selections.

HOW TO SPECIFY

Based on the cloud size and shape you choose, you need to specify and order the suspension and trim kit item number and the panel item number you select.

Standard plank clouds feature 15/16" PRELUDE® suspension system and your choice of 2", 4", or 6" high AXIOM® Vector® trim.

EXAMPLE:

1210 V4P 26V

12' x 10' 4" High 2' x 6'
Cloud AXIOM® OPTIMA®
Vector Vector
Trim Panels

Also order OPTIMA® Vector® Plank Panel Kit: 3906 (2' x 6' – 1 carton).

* Formations™ Planks Cloud Kits are available in white only. For colors, contact customer service at 1 800 840 8521.

VISUAL SELECTION

Cloud Size	Suspension Item No. <small>(AXIOM® Vector® Trim & Suspension System)</small>
Planks	15/16" Prelude
8' x 6'	0806V _ P24V
8' x 8'	0808V _ P24V
8' x 10'	0810V _ P24V
8' x 12'	0812V _ P24V
8' x 14'	0814V _ P24V
8' x 16'	0816V _ P24V
12' x 6'	1206V _ P __ V
12' x 8'	1208V _ P __ V
12' x 10'	1210V _ P __ V
12' x 12'	1212V _ P __ V
12' x 14'	1214V _ P __ V
12' x 16'	1216V _ P __ V
16' x 6'	1606V _ P __ V
16' x 8'	1608V _ P __ V
16' x 10'	1610V _ P __ V
16' x 12'	1612V _ P __ V
16' x 14'	1614V _ P __ V
16' x 16'	1616V _ P __ V



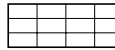


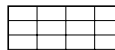


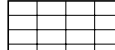


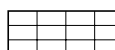


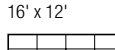


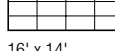
PANEL SELECTION

OPTIMA® Vector® Panels







	2' x 4'	2' x 6'	2' x 8'
	Item 3908 (Ctns)	Item 3906 (Ctns)	Item 3907 (Ctns)
8' x 6'	1	–	–
8' x 8'	1	–	–
8' x 10'	1	–	–
8' x 12'	2	–	–
8' x 14'	2	–	–
8' x 16'	2	–	–
12' x 6'	1	2	1
12' x 8'	2	2	2
12' x 10'	2	2	2
12' x 12'	2	3	2
12' x 14'	2	3	2
12' x 16'	3	3	3
16' x 6'	2	–	2
16' x 8'	2	–	2
16' x 10'	2	–	2
16' x 12'	3	–	3
16' x 14'	3	–	3
16' x 16'	3	–	3

PLANKS CLOUD SHAPE AND SIZE SELECTION

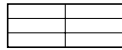
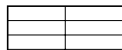
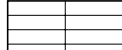
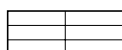
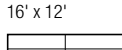
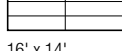
2' x 4' Panels

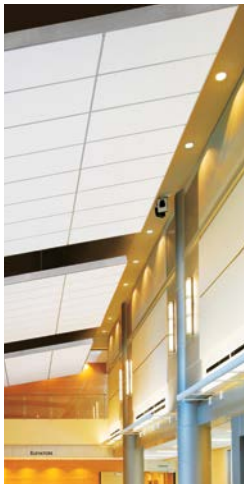
 8' x 6'	 12' x 6'	 16' x 6'
 8' x 8'	 12' x 8'	 16' x 8'
 8' x 10'	 12' x 10'	 16' x 10'
 8' x 12'	 12' x 12'	 16' x 12'
 8' x 14'	 12' x 14'	 16' x 14'
 8' x 16'	 12' x 16'	 16' x 16'

2' x 6' Panels

 12' x 6'
 12' x 8'
 12' x 10'
 12' x 12'
 12' x 14'
 12' x 16'

2' x 8' Panels

 16' x 6'
 16' x 8'
 16' x 10'
 16' x 12'
 16' x 14'
 16' x 16'



AXIOM® trims and transitions customer service is available to help with your project from start to finish. Call 1 800 840 8521.

View installation videos or download CAD, Revit®, and SketchUp® files at armstrongceilings.com/formations

FORMATIONS™ Drywall Cloud Kits

5 Specify kits.

HOW TO SPECIFY

Based on the cloud size and shape you choose, you need to specify and order the suspension and trim kit item number. FORMATIONS™ drywall cloud kits are only compatible with 5/8" thick drywall.

Standard drywall cloud kits feature your choice of 2", 4", or 6" high unfinished AXIOM® drywall trim for easy on-site painting.

EXAMPLE:











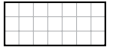


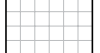
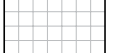


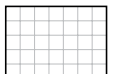



0404D A1P6UF

4' x 4'	6" High
Drywall	AXIOM®
Cloud	One-piece
	Drywall
	Trim
	Unfinished

VISUAL SELECTION

Cloud Size	Suspension Item No. <small>(AXIOM® Trim & Suspension System)</small>	Cloud Size	Suspension Item No. <small>(AXIOM® Trim & Suspension System)</small>
Drywall	1-1/2" Drywall Grid	Drywall	1-1/2" Drywall Grid
4' x 4'	0404DA1P_UF	8' x 8'	0808DA1P_UF
4' x 6'	0406DA1P_UF	8' x 10'	0810DA1P_UF
4' x 8'	0408DA1P_UF	8' x 12'	0812DA1P_UF
4' x 10'	0410DA1P_UF	8' x 14'	0814DA1P_UF
4' x 12'	0412DA1P_UF	10' x 10'	1010DA1P_UF
4' x 14'	0414DA1P_UF	10' x 12'	1012DA1P_UF
6' x 6'	0606DA1P_UF	10' x 14'	1014DA1P_UF
6' x 8'	0608DA1P_UF	12' x 12'	1212DA1P_UF
6' x 10'	0610DA1P_UF	12' x 14'	1214DA1P_UF
6' x 12'	0612DA1P_UF	14' x 14'	1414DA1P_UF
6' x 14'	0614DA1P_UF		

DRYWALL CLOUD SHAPE AND SIZE SELECTION

 4' x 4'	 4' x 6'	 4' x 8'	 4' x 10'	 4' x 12'	 4' x 14'
 6' x 6'	 6' x 8'	 6' x 10'	 6' x 12'	 6' x 14'	
 8' x 8'	 8' x 10'	 8' x 12'	 8' x 14'		
 10' x 10'	 10' x 12'	 10' x 14'	 12' x 12'	 12' x 14'	 14' x 14'



FORMATIONS™ with Integrated Lighting

5 Specify kits, colors, and panel selections.

HOW TO SPECIFY

Based on the cloud size and shape you choose, you need to specify and order the suspension and trim kit item number, the panel item number, and the Philips Ledalite light fixture you select.

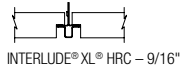
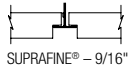
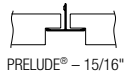
EXAMPLE:

L0608T _ _ * **AV** _ _ _
 6' x 8' Cloud Susp. System 6" or 8" AXIOM® Vector height Color Suffix

* PD = Prelude 15/16"
 SF = Suprafine 9/16"
 LD = Interlude 9/16"

All clouds come in the color White.

All clouds have a 4" wide opening in the center specifically designed for the integration of a Philips Ledalite TruGroove LED fixture.



VISUAL SELECTION

Cloud Size	Suspension Item No. (AXIOM® Vector® Trim & Suspension System)
6' x 8'	L0608T _ _ AV _ _ _
8' x 8'	L0808T _ _ AV _ _ _
8' x 10'	L0810T _ _ AV _ _ _
10' x 10'	L1010T _ _ AV _ _ _

PANEL SELECTION

OPTIMA® Square Tegular Panels		ULTIMA® Beveled Tegular Panels		CALLA® Beveled Tegular Panels		LYRA® Square Tegular Panels	
2' x 2'		2' x 2'		2' x 2'		2' x 2'	
15/16"	9/16"	15/16"	9/16"	15/16"	9/16"	15/16"	9/16"
3354	3251	1911	1912	2822	2824	8360	8361
3354	3251	1911	1912	2822	2824	8360	8361
3354	3251	1911	1912	2822	2824		
30" x 30"		30" x 30"		30" x 30"		30" x 30"	
15/16"	9/16"	15/16"	9/16"				
3258	3259		1905	-		-	

PLANKS CLOUD SHAPE AND SIZE SELECTION

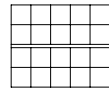
2' x 2' Panels



6' x 8'

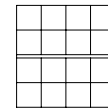


8' x 8'



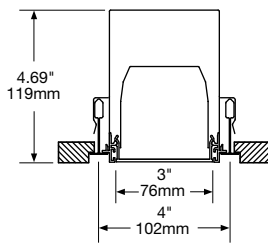
8' x 10'

30" x 30" Panels

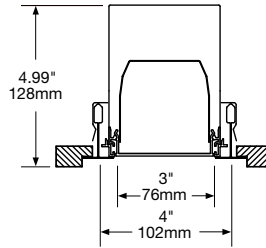


10' x 10'

CEILING PANEL / SUSPENSION SYSTEM / LIGHT FIXTURE INTERFACE



Armstrong® SUPRAFINE® 9/16" suspension system with Philips Ledalite TruGroove LED Light



Armstrong® PRELUDE® 15/16" suspension system with Philips Ledalite TruGroove LED Light



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FORMATIONS™ with Integrated Lighting

PHILIPS LEDALITE – TRUGROOVE LED RECESSED LIGHTING OVERVIEW



The epitome of simple sophistication – TruGroove LED lighting provides unrivaled performance and a truly innovative design, making a definitive statement in any architectural space.

SPECIFY YOUR COMPATIBLE LEDALITE LIGHTING FIXTURE

Family	Version	Distribution	Source	Color Temp	Lumen Package	Optics	Housing	Ceiling / Trim	Run Length/ Size	Wiring Type	Voltage	Ballast/ Driver
39	S	1	L	A	G	Q	S	5	6'	1	2	E
TruGroove Recessed	Standalone	Performance Distribution 1 Symmetric Definition Distribution 0 Symmetric	L LED	A 4000K B 3500K C 3000K	E 3000 lm/4 ft G 2200 lm/4 ft K 1500 lm/4 ft	Performance Optics Q Flush MesoOptics R Regressed MesoOptics Definition Optics L Flush Silk M Regressed Silk	S Standard	5 Armstrong Cloud	6' 5' 11-7/8" o.a. 8' 7' 11-7/8" o.a. 10' 9' 11-7/8" o.a.	1 1 cct 3 1 cct w/ emergency 7 1 cct dimming	1 120V 2 277V 3 347V	E Standard

Contact your Philips lighting representative to order. For questions about lighting specifications:
Call: Philips Ledalite quotations at 604.888.6811 or
Email: quotes.ledalight@philips.com (Reference: Armstrong Clouds)

SPECIFY YOUR COMPATIBLE LEDALITE LIGHTING FIXTURE

Example based on 2200 lm (nominal per 4'), 4000K

Total Output	2187 lm
Efficacy	78.4 lm/W
CCT	4039K
CRI	84
R9	17
Distribution	0% Up / 100% Down
Spacing Criteria (0/90/180°)	1.41/1.75/NA
Meets RP-1-04 recommendations for VDT-Normal spaces	

Values per 4 ft unit

Fixture photometry has been conducted by an NVLAP accredited testing laboratory in accordance with IESNA LM-79:2008

Lumen maintenance of the LEDs has been tested by the manufacturer in accordance with IESNA LM-80:2008

IES files for this and other photometric options can be downloaded online at www.ledalite.com

TRUGROOVE PHYSICAL DATA

Housing

Die-formed 20 gauge cold-rolled steel. Multiple upper wire entrances available for continuous row mounting of fixtures.

Weight

Maximum 3.5 lbs/ft.

Optical System

Performance version: White light emitted from the LED sources is internally reflected and laterally redirected by a biconvex lens. Light is then reflected by Miro-Silver panels and exits through the optical lens assembly. This assembly contains acrylic extrusion profiles to retain a layer of MesoOptics film, creating both an uninterrupted continuum of light and an optical batwing distribution.

Definition version: Light passes through a diffuse white acrylic lens to deliver a highly uniform luminous continuum.

Standard Driver

Dimming: 0-10V, 5-100%. Output is Class 2 rated.

Lumen Maintenance

At an ambient temperature of 25°C in non-insulated contact applications, the LED lumen maintenance expectation for each lumen package is:

K: L80 (12k) 71,000 hrs

G: L80 (12k) 68,000 hrs

E: L80 (12k) 54,000 hrs

Mounting

Mounting brackets on housing sides support T-Grid installation. 1/16" diameter aircraft cable with self-locking, tamper-resistant, miniature cable gripper provides vertical adjustment for drywall. Aircraft cable, crimp, and gripper independently tested to meet stringent safety requirements.

TRUGROOVE ELECTRICAL SPECIFICATIONS

Input Voltage	120V	277V
Input Voltage	27.9W	27.9W
Input Current	0.237A	0.115A
Power Factor	0.983	
Total Harm. Distortion	16.5%	

Tested values – contact technical support for rated values.
Off-state power zero unless certain controls are specified.

Joints

Self-aligning joining system with hands-free pre-joining wire access.

Electrical

Factory pre-wired to section ends with quick-wire connectors.

Approvals

Certified to UL, CSA, and IES standards. Insulation Contact (IC) rated.

Finish

Extruded aluminum trim and die-cast endplates coated with electrostatically applied and thermally cured polyester powder coat paint finish.

Environment

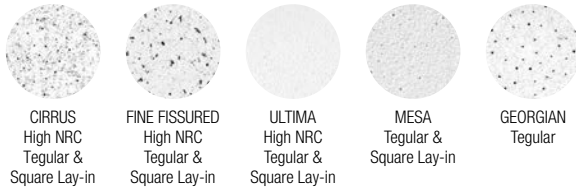
Rated for dry or damp locations in operating ambient temperatures 0-40°C (32-104°F).

FORMATIONS™ Custom Cloud Kits

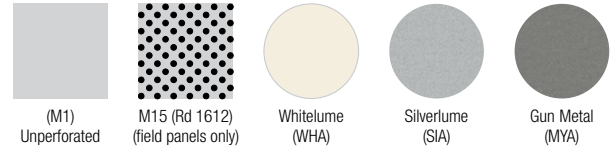
Size, panels, color, suspension, and trim – it's all up to you!

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

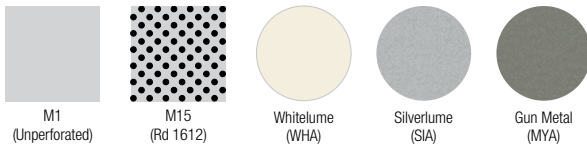
CIRRUS® High NRC/FINE FISSURED™ High NRC/ULTIMA® High NRC/MESA™/GEORGIAN™
Tegular and Square Lay-in Panels



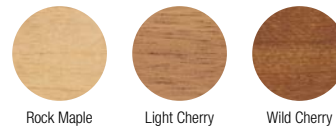
METALWORKS™ TechZone®
Tegular Panels



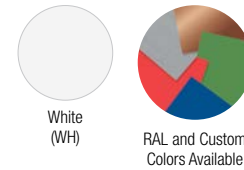
METALWORKS 3D Tegular Panels



Reflections™ Laminate Finishes*

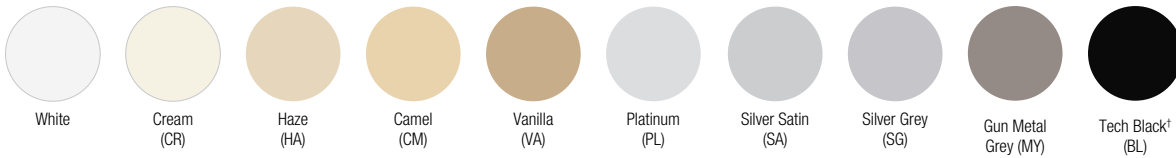


METALWORKS Open Cell Lay-in Panels



* See BPCS-4785 for more finish options

SUSPENSION SYSTEM / AXIOM® TRIM COLOR SELECTION

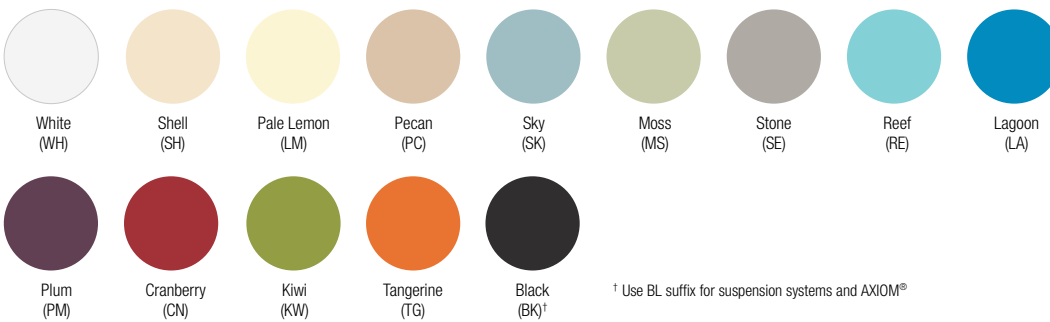


Drywall



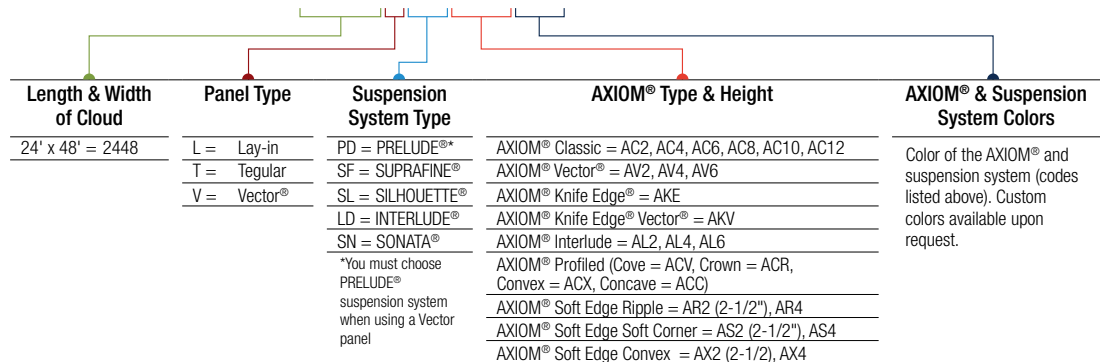
† Tech Black coordinates with COLORATIONS® Black (BK)
NOTE: If specifying a color other than White for Curves, Squares, Planks, or Staggered Clouds, remember to add the color suffix at the end of the suspension kit item number.

COLORATIONS® (Coordinates with CALLA® COLORATIONS® panels and SUPRAFINE® suspension systems)



† Use BL suffix for suspension systems and AXIOM®

2448VPDAV6WH



HOW TO SPECIFY CUSTOM KITS

Because each cloud can be so unique, there are no predetermined item numbers. Here's an example of how to develop an item number for a specification or order:

TAKE THE NEXT STEP

1 877 276 7876

Customer Service Representatives
7:45 a.m. to 5:00 p.m. EST
Monday through Friday

TechLine – Technical information, detail drawings, CAD design assistance, installation information, other technical services – 8:00 a.m. to 5:30 p.m. EST, Monday through Friday. FAX 1 800 572 8324 or email: techline@armstrongceilings.com

armstrongceilings.com/commercial

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