

**CEILING** SYSTEMS

Between us, ideas become reality™

 **AirGuard™ Coating**

For Ultima® Ceiling Panels

A revolutionary breakthrough  
to actively remove  
formaldehyde in buildings

  
CEILING SOLUTIONS

We all want  
clean air indoors and out...



# AirGuard™ Coating works the hardest when you need it the most

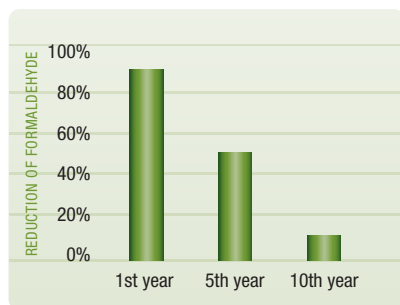
## Actively removes aldehydes:

**During commissioning and early occupancy:** AirGuard Coating eliminates over 90% of formaldehyde during the first year of use, when off-gassing from new materials presents the greatest risk to occupant health.

**During normal occupancy:** AirGuard Coating removes over 90% of formaldehyde in the 1st year and 50% in the 5th year.

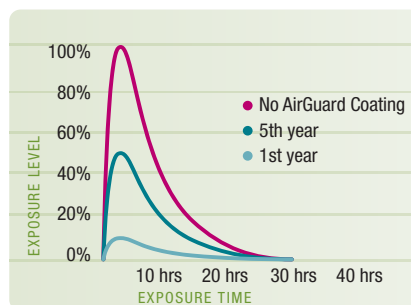
**During “spike” periods:** Formaldehyde concentration can increase dramatically due to human activity and indoor air reactions with consumer products like cleaning agents and office equipment. AirGuard Coating helps to reduce exposure level and time.

### Elimination of formaldehyde in indoor air with AirGuard Coating



AirGuard Coating removes 90% of formaldehyde during the 1st year and 50% of formaldehyde for 10 years

### Performance of ceiling with AirGuard Coating in a room with a spike source



During 1st year of installation, exposure level and time to spike sources reduced by 90%

## Independent and industry tests validate performance for AirGuard™ Coating

### Performance backed by UL-Environment™

AirGuard Coating is a UL-Environment Certified Product and listed in the UL Database of Validated and Certified Products. UL provides independent testing and evaluation of claims and reassesses through the UL Conformity Integrity Service to assure ongoing compliance. For more information and certification documentation, visit [ulenvironment.com](http://ulenvironment.com).



\*UL-Environmental Claims Qualification: At an average indoor concentration of 13 ppb, AirGuard Coating removes formaldehyde by an average of 50% over 10 years.

### Testing and measurement followed:

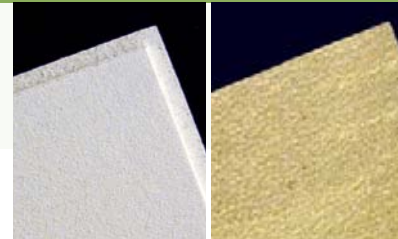
ASTM procedures (ASTM 5116-10, D 5197-03)

ISO Standards (ISO-16000-23)

For additional information, please visit [armstrong.com/airguard](http://armstrong.com/airguard) to see our AirGuard Coating White Paper (CS-4313).

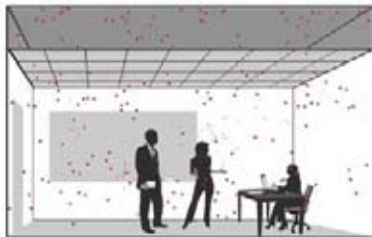
## How AirGuard™ Coating works

- AirGuard Coating, applied to the back of ceiling tiles, converts formaldehyde present in interiors into an inert substance permanently captured by the ceiling
- Performance characteristics of ceilings are unaffected, including:
  - Excellent sound absorption
  - Smooth, clean, durable DuraBrite® finish
  - Washable, Impact-resistant, Scratch-resistant, Soil-resistant
  - 30-Year Limited System Warranty against visible sag, mold/mildew, and bacterial growth
  - 100% Recyclable through the Armstrong Recycling Program

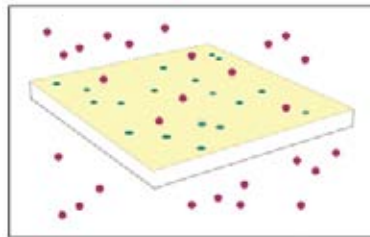


Front of ceiling panel

Back of ceiling panel with AirGuard Coating



Without AirGuard Coating, formaldehyde concentrations average 13 ppb



AirGuard Coating captures formaldehyde in the ceiling panel and changes it into a harmless inert substance



AirGuard Coating reduces formaldehyde concentration by 90% in the first year

## Ultima® with AirGuard™ Coating contributes to LEED® in the following credit categories:



- Renewable Materials
- Recycled Content (70%)
- Energy (Light Reflectance 0.90)
- Daylight & Views
- Regional Materials (Let our Green Genie™ calculate mileage for you!)
- Waste Management (It's recyclable through our recycling program)
- Innovation
  - Active removal of indoor pollutants
  - Acoustics (NRC 0.70)
  - Low-Emitting Materials—Listed on CHPS Database
- Acoustics (NRC 0.70)
- Low-Emitting Materials—Listed on CHPS Database

Recycled Content: 70%		armstrong.com/greengenie	
<b>LEED® Credits</b>			
Energy	Waste Mgmt	Recycled Content	Local Materials
✓	✓	✓	✓
Location Dependent			
Renewable Materials	Daylight & Views	Innovation Credit	
✓	✓	✓	
<b>LEED for Schools</b>			
Acoustics	Low Emitting or CHPS		
✓	✓		



# Now we can have it

Introducing AirGuard™ – the first coating for ceiling tiles that actively removes formaldehyde and other aldehydes in indoor air

Specifying low-emitting material finishes is the first step to improving indoor air quality. Now you can actively remove naturally occurring and man-made formaldehyde with AirGuard Coating – a patent pending, breakthrough coating technology in improving indoor air quality.

AirGuard Coating removes:

- 90% in the 1st year
- 50% over 10 years

Ultima® with AirGuard Coating does the job that air filtration systems can't – it neutralizes formaldehyde while offering an aesthetically pleasing fine-textured ceiling surface with superior acoustic and light reflectance for quiet, bright, and healthy indoor spaces. While we can all benefit from better acoustics and clean indoor air, it is especially important to:

- The elderly and immune-compromised in healthcare settings
- Elementary aged children in education facilities
- People who spend 90% of their time in office buildings

# ULTIMA® with AirGuard™ Coating

Square Lay-in, Tegalur

fine texture



Recycled Content: 7

armstrongceilings.com/greengenie

## LEED® Credits

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

Location Dependent

## LEED for Schools

Acoustics	Low Emitting or CHPS
✓	✓

Possible LEED Innovation Credit for Active Removal of Indoor Pollutants

**EPD** Environmental Product Declaration  
Items 1900, 1901, 1902, 1903, 1904, 1906

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## Key Selection Attributes

- Available in standard Ultima and Health Zone™ Ultima finish
- Excellent sound absorption
- Visual coordinates with Optima® for mixed (open/closed plan) applications
- Non-directional visual reduces installation time and scrap
- Compatible with TechZone™ Ceiling Systems
- 30-Year Limited System Warranty against visible sag, mold/mildew, and bacterial growth

\* UL-Environmental Claims Qualification: At an average indoor concentration of 13 ppb, AirGuard Coating removes formaldehyde by an average of 50% over 10 years.

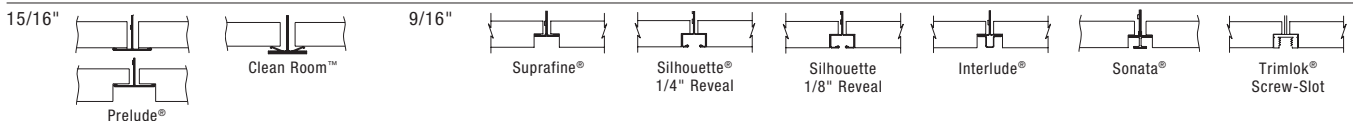
## Visual Selection

## Performance Selection

Dots represent highest level of performance.

Edge Profile	Item No.	Dimensions	UL Classified Acoustics NRC	CAC	Fire Rating	Light Reflect	Sag Resist	Anti-Microbial	Durable					Recycle Program	
									Wash	Scrub	Water Repel	Impact	Scratch		Soil
<b>ULTIMA with AirGuard Coating</b>															
15/16" Square Lay-in	1900	2' x 2' x 3/4"	0.70	35	Class A	0.90	HumiGuard+	BioBlock+	•	•	•	•	•	•	•
	1903	2' x 4' x 3/4"	0.70	35	Class A	0.90			•	•	•	•	•	•	•
9/16" Beveled Tegalur	1902	2' x 2' x 3/4"	0.70	35	Class A	0.90			•	•	•	•	•	•	•
	1906	2' x 4' x 3/4"	0.70	35	Class A	0.90			•	•	•	•	•	•	•
15/16" Beveled Tegalur	1901	2' x 2' x 3/4"	0.70	35	Class A	0.90			•	•	•	•	•	•	•
	1904	2' x 4' x 3/4"	0.70	35	Class A	0.90			•	•	•	•	•	•	•
<b>Health Zone™ ULTIMA with AirGuard Coating</b>															
15/16" Square Lay-in	1935AG	2' x 2' x 3/4"	0.70	35	Class A	0.90			•	•	•	•	•	•	•
	1938AG	2' x 4' x 3/4"	0.70	35	Class A	0.90			•	•	•	•	•	•	•
9/16" Beveled Tegalur	1936AG	2' x 2' x 3/4"	0.70	35	Class A	0.90			•	•	•	•	•	•	•
15/16" Beveled Tegalur	1937AG	2' x 2' x 3/4"	0.70	35	Class A	0.90			•	•	•	•	•	•	•

## Suspension Systems



## Physical Data

### Material

Wet-formed mineral fiber with DuraBrite acoustically transparent membrane. Items 1935AG, 1936AG, 1937AG, 1938AG are water-repellent.

### Surface Finish

DuraBrite with factory-applied latex paint

### AirGuard Coating

AirGuard Coating is a patent pending breakthrough coating that is applied to the back of ceiling tiles. This coating reacts with formaldehyde present in interiors and through a harmless, safe chemical process, renders it inert.

### 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 IV, Form 2, Pattern E  
Fire Class A

### Sag Resistance

HumiGuard® Plus – superior resistance to sagging in high humidity conditions up to, but not including, standing water and outdoor applications.

### VOC Emissions

Meets CA Dept. of Health Services Standard Practice for the testing of VOC Emissions and is listed on CHPS High Performance Products Database for Low-Emitting Materials.

### Anti Mold/Mildew & Bacteria

BioBlock® Plus contains an anti-microbial treatment and provides guaranteed resistance against growth of mold/mildew and Gram-positive and Gram-negative odor/stain-causing bacteria for 30 years.

### Insulation Value

R Factor – 2.2 (BTU units)  
R Factor – 0.39 (Watts units)

### 30-Year Performance Guarantee & Warranty Information

Details at [armstrongceilings.com/warranty](http://armstrongceilings.com/warranty)

### Application Considerations

For Clean Room installations, use full-size panels. Testing for Clean Room 5 (Class 100) was completed with full-size Lay-in (1935AG) and 15/16" Beveled Tegalur (1937AG) with Clean Room 15/16" gasketed grid. For Clean Rooms that require field cut perimeter panels, use Lay-in panels (1935AG) or Tegalur panels (1937AG) with Lay-in field cut panels at the perimeter.

Health Zone Ultima with AirGuard Coating has an easy-to-clean, semi-gloss surface that is smoother in appearance than Ultima and Optima®. Health Zone Ultima with AirGuard Coating will complement Ultima, Health Zone Ultima, Optima, and Health Zone Optima, but is not recommended for installation within the same room. Lighting conditions may emphasize the difference in gloss levels.

### Cleaning Recommendations for Health Zone Ultima with AirGuard Coating

To clean panel, use a clean, white cloth with water or a mild detergent and wipe surface. To disinfect panel, lightly spray surface and wipe clean with a clean, white cloth. Acceptable colorless disinfectants include:

- Sodium hypochlorite
- Isopropyl alcohol
- Hydrogen peroxide
- Quaternary ammonium

### Weight; Square Feet/Carton

1.08 lbs/SF; 48 SF/ctn



MINERAL FIBER