A revolutionary breakthrough to actively remove formaldehyde in buildings

**AirGuard™ Coating**

For Ultima® Ceiling Panels

A revolutionary breakthrough to actively remove formaldehyde in buildings
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

<table>
<thead>
<tr>
<th>Year</th>
<th>1st year</th>
<th>5th year</th>
<th>10th year</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>100</td>
<td>80</td>
<td>60</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Exposure Level</th>
<th>Exposure Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>10 hrs</td>
</tr>
<tr>
<td>100</td>
<td>No AirGuard Coating</td>
</tr>
</tbody>
</table>

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.

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 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

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
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, Tegular

Key Selection Attributes
- Available in standard Ultima and Health Zone™ Ultima finish
- Excellent sound absorption

* 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

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Dimensions</th>
<th>UL Classified Acoustics</th>
<th>NRC</th>
<th>Fire Rating</th>
<th>Sag Reflect</th>
<th>Anti-Microbial</th>
<th>Durable</th>
<th>Recycle Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>ULTIMA with AirGuard Coating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15/16” Square Lay-in</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1900</td>
<td>2’ x 2’ x 3/4”</td>
<td>0.70</td>
<td>35</td>
<td>Class A</td>
<td>0.90</td>
<td>HumiGuard™+</td>
<td>BioBlock™+</td>
<td>Wash</td>
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<tr>
<td>9/16” Beveled Tegular</td>
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<tr>
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<tr>
<td>15/16” Beveled Tegular</td>
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<td>1901</td>
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<tr>
<td>1904</td>
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<td>35</td>
<td>Class A</td>
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</table>

Health Zone™ ULTIMA with AirGuard Coating

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Dimensions</th>
<th>UL Classified Acoustics</th>
<th>NRC</th>
<th>Fire Rating</th>
<th>Sag Reflect</th>
<th>Anti-Microbial</th>
<th>Durable</th>
<th>Recycle Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>1935AG</td>
<td>2’ x 2’ x 3”</td>
<td>0.70</td>
<td>35</td>
<td>Class A</td>
<td>0.90</td>
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<td></td>
</tr>
<tr>
<td>1936AG</td>
<td>2’ x 2’ x 3”</td>
<td>0.70</td>
<td>35</td>
<td>Class A</td>
<td>0.90</td>
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<td></td>
</tr>
<tr>
<td>1937AG</td>
<td>2’ x 2’ x 3”</td>
<td>0.70</td>
<td>35</td>
<td>Class A</td>
<td>0.90</td>
<td></td>
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<td></td>
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</tbody>
</table>

Suspension Systems

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Suspension Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>15/16” Prelude*</td>
<td>Clean Room™</td>
</tr>
<tr>
<td>9/16” SupraLine™</td>
<td>Silhouette™ 1/4” Reveal</td>
</tr>
<tr>
<td>Silhouette™ 1/8” Reveal</td>
<td>Interlude™</td>
</tr>
<tr>
<td>Sonata™</td>
<td>Trimlok® Screw Slot</td>
</tr>
</tbody>
</table>

Physical Data

Material

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 E64 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

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 mild/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

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 Tegular (1937AG) with Clean Room 15/16” gasketed grid. For Clean Rooms that require field cut perimeter panels, use Lay-in panels (1935AG) or Tegular 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 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 colorless disinfectants including: Sodium hypochlorite, Hydrogen peroxide, Isopropyl alcohol, and Quaternary ammonium.

Weight: Square Feet/ Carton
1.08 lbs/SF; 48 SF/carton

HumiGuard+ SM® Plus – superior resistance to sagging

TechLine™ / 1 877 276 7876
armstrongceilings.com/ceilings (search: airguard)
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