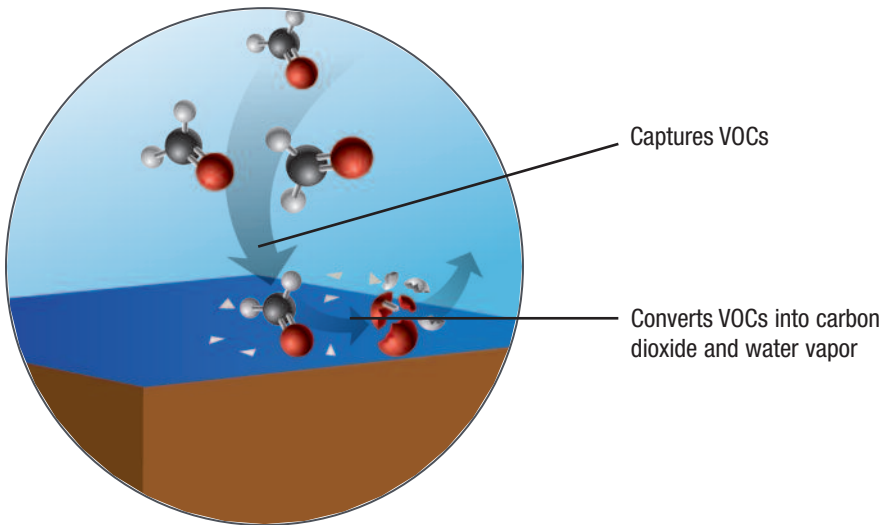


**Decoustics' Acoustical Fabric Wrapped Panels featuring AirRenew fabric Technology: How it works**



**Features and Advantages**

- Safely converts VOCs into carbon dioxide (CO<sub>2</sub>) and water vapor which evaporate into the air
- Breaks down pollutants and odors
- Provides protection against the growth and transmission of bacteria that comes into contact with the panel (bacteria that may damage, discolor or create odor on the panel will not be able to spread).
- Panel construction provides sound absorption for improved room acoustics
- Ideal for use in schools, hospitals, nursing homes and offices
- Class A flame spread (less than 25) when tested in accordance with ASTM E84
- Decoustics acoustical wall panels, featuring AirRenew™ fabric technology, are part of a growing family of interior products that actively improve indoor air quality (IAQ). The AirRenew™ family includes CertainTeed's innovative, first-of-its-kind AirRenew™ IAQ Gypsum Board.

**Description**

Decoustics' acoustical fabric wrapped wall and ceiling panels featuring AirRenew™ fabric technology consist of AirRenew™ fabric stretched or bonded over a formaldehyde-free fiberglass core. Panels are supplied with factory installed devices for different types of mounting such as mechanical, adhesive, magnetic or hook and loop fastenings.

**Panels**

Fabric wrapped panels featuring AirRenew™ are offered in a variety of sizes, geometric shapes, curves and thicknesses.

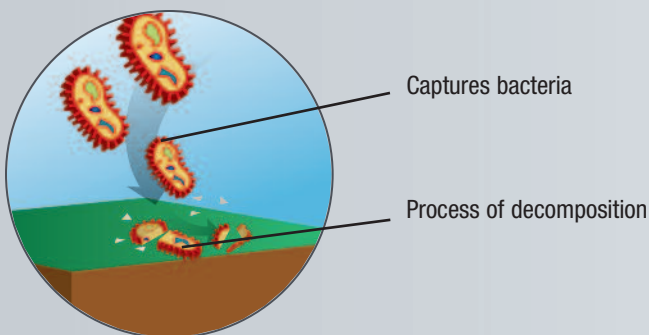
**Design Considerations**

When using speakers in ceiling or wall panels, it is recommended the speaker grille be visibly mounted at the face of the panel. Speaker function creates air movement and any fabric covering the speaker will experience premature soiling.

**AirRenew™ Fabric Technology**

AirRenew™ fabric uses a catalytic process to transform VOCs and numerous odors into harmless, natural substances. As soon as VOCs or odor molecules come into contact with Decoustics fabric panel featuring AirRenew™ a unique chemical reaction takes place and they are broken down and rendered harmless.

An added antibacterial feature helps to prevent the spread of common germs.



Decoustics fabric wrapped panels featuring AirRenew™ use specifically active fibers to prevent the spread and colonization of bacteria that may cause discoloration, odor or deterioration of the panels.

Silver ions within the fabric control the growth of bacteria. The bacteria is killed off and decomposed by the cell physiology, helping to stop the enzymatic process.

## Acoustical Fabric Wrapped Panels

featuring

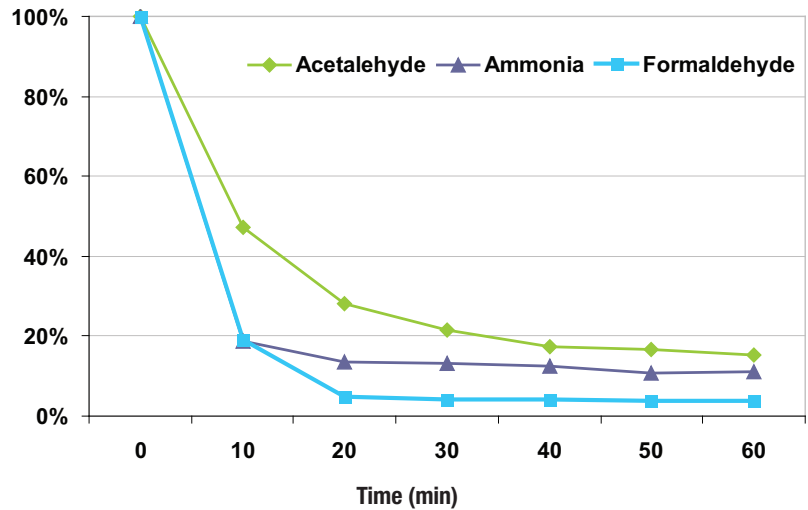
# AirRenew™

**Acetaldehyde** is a colorless volatile pungent liquid, miscible with water, used in the manufacture of organic compounds and as a solvent and reducing agent. Used chiefly in organic synthesis that can cause irritation to mucous membranes.

**Ammonia** is a colorless, pungent gas used to manufacture a wide variety of nitrogen-containing organic and inorganic chemicals.

**Formaldehyde** is a naturally occurring substance in the environment and is a colorless, toxic, potentially carcinogenic gas that is emitted mainly from building materials and household products. Formaldehyde is typically found in disinfectant and preservatives, and in the manufacture of various resins and plastics. At low levels in indoor air, formaldehyde is actually very common and not harmful. When found at high levels in air, it can be detected by a sharp smell. High concentrations of formaldehyde can cause irritation of the eyes, nose and throat and can worsen asthma symptoms in children and infants.

### Test Results: Acetaldehyde, Ammonia and Formaldehyde



Tested at the Institute for Environmental and Agricultural Chemistry, Germany

### Test Results: Environmental Chamber

	Greenguard TVOC (mg/m <sup>3</sup> )	Children and Schools TVOC (mg/m <sup>3</sup> )	Greenguard Formaldehyde (ppm)	Children and Schools Formaldehyde (ppm)
Criteria	≤0.5	≤0.22	≤0.05	≤0.0135
Meets Criteria	✓	✓	✓	✓
Results	0.2	0.082	0.006	0.002

Finished panels tested in accordance with ASTM D 5116, analyses based on ASTM D 6196 and ASTM D 5197

### Test Results Summary

**Acetaldehyde:** A concentration of 24mg/m<sup>3</sup> was simulated at the Institute for Environmental and Agricultural Chemistry to prove AirRenew™ fabric technologies' effectiveness for degrading acetaldehyde. The AirRenew™ fabric to be tested was exposed to the pollutant after the aqueous solution was injected. The reaction time was defined in intervals of 10 minutes for the subsequent analytical determination of residual acetaldehyde content in the reaction chamber air sample.

The AirRenew™ fabric showed a steep curve with residual content of approx. 15%

**Ammonia:** A concentration of 416.7 mg/m<sup>3</sup> was simulated in the test institute to prove AirRenew™ fabric technologies' effectiveness for degrading ammonia. The AirRenew™ fabric to be tested was exposed to the pollutant after the aqueous solution was injected. The reaction time was defined in intervals of 10 minutes for the subsequent analytical determination of residual ammonia content in the reaction chamber air sample.

The AirRenew™ fabric showed a steep curve with residual content of approx. 11%

**Formaldehyde:** A concentration of 14.5mg/m<sup>3</sup> was simulated in the test institute to prove AirRenew™ fabric technologies' effectiveness for degrading formaldehyde. The AirRenew™ fabric to be tested was exposed to the pollutant after the aqueous solution was injected. The reaction time was defined in intervals of 1, 2, 5 and 10 minutes for the subsequent analytical determination of residual formaldehyde content in the reaction chamber air sample.

The AirRenew™ fabric showed a steep curve with residual content of approx. 3.7%

Acoustical Data (ASTM C423: Type F5 Mounting as per ASTM E795).

PANEL TYPE	FINISH	PANEL THICKNESS	FREQUENCY (Hz)						NRC	SAA
			125	250	500	1000	2000	4000		
Acoustical Panel (AP)	AirRenew™	1" (25mm)	0.03	0.37	0.89	1.10	1.09	1.05	0.85	0.87
High Impact Resistant/Tackable	AirRenew™	1-1/8" (28mm)	0.17	0.60	1.0	1.08	0.93	0.82	0.90	0.89
High Impact Resilient	AirRenew™	1-1/2" (38mm)	0.15	0.58	1.01	1.13	1.10	1.03	0.90	-
High Impact Extreme	AirRenew™	1" (25mm)	0.07	0.37	0.90	1.07	0.99	0.91	0.85	0.84
Applique Panel	AirRenew™	1-1/8" (28mm)	0.17	0.60	1.0	1.08	0.93	0.82	0.90	0.89

### Wall Mounting Methods

Mount panels to walls using mechanical fastening, adhesive, magnetic fastening or hook and loop fastening. Mechanically mount only for panels located above head height (includes slide and engage z-clips, wall clips and/or track). Use adhesive and mechanical fastening to secure "loop" to wall i.e. stapled with splayed-outward legs. Consult with Decoustics to determine correct fastener to use for specific substrates, particularly plaster or gypsum board.

Note: It is not always possible to secure panels or mounting hardware to a substrate support such as a steel stud. Follow manufacturer's printed instructions for installation as well as for field cutting of panels.

### Ceiling Mounting Methods

Compatible with most Decoustics ceiling suspension systems.\*

FINISH	EDGE OPTIONS	SIZES	CONSTRUCTION	THICKNESS	NRC	WEIGHT
AirRenew™	Resin: square, bevelled, radiused, stepped  Concealed Extruded Aluminum: square *(defined), bevelled  defined for 1", 1-1/2" & 2" thickness only bevelled for 1" thickness only	Up to 48" x 120" (1220 mm x 3050 mm)  Fabric width must be sufficient to cover panel, panel thickness, and wrap minimum 1" (25 mm) on back side.	Panels consists of a 6 to 7 pcf (96 to 112 kg/m³) medium density formaldehyde free core with an AirRenew™ fabric finish. Fabric corners are fully tailored (no exposed darting).	3/4" (19 mm)	0.70	0.74 psf (3.61 kg/m²)
				1" (25 mm)	0.85	0.88 psf (4.30 kg/m²)
				1-1/2" (38 mm)	0.95	1.19 psf (5.81 kg/m²)
				2" (50 mm)	1.05	1.51 psf (7.37 kg/m²)

Values based on Decoustics standard AP panel. For further information on other panel types please refer to the appropriate datasheets found at decoustics.com

\* Claro-T, Nuvola, HCC and Domes not included in suspension systems

*Note: The information provided in this Data Sheet is accurate to the best of our knowledge at the time of printing. However, we reserve the right to make changes when necessary without further notification. Suggested applications may need to be modified to conform with local building codes and conditions. We cannot accept responsibility for products that are not used, or installed, to our specifications. Please refer to our website for most current data.*

*Note: Only handle panels wearing clean, lightweight, white gloves during installation. Follow manufacturer's printed instructions for installation as well as field cutting of panels.*