

CertainTeed
AirRenew[™]
Gypsum Board



Let's Clear the Air

Introducing **AirRenew**[™] for a healthier living and working environment.



AirRenew[™] uses two innovative technologies* to actively improve indoor air quality. First, it cleans the air by permanently removing VOCs** circulating indoors. It keeps working for 75 years, based on tests and analysis, even through multiple renovations. AirRenew[™] also incorporates M2Tech[®] technology, providing enhanced moisture and mold resistance.

* Patent pending

** VOCs (volatile organic compounds) - formaldehyde and other aldehydes.



Hospitals



Schools



Offices



Residences

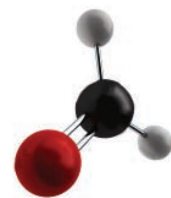
AirRenew™ improves indoor air quality and provides peace of mind for generations.

AirRenew™ takes VOCs out of the air—and keeps them out.**

AirRenew™'s new technology takes VOCs** out of the air and converts them into safe, inert compounds. Once they are captured in the board, they cannot be released back into the air.

M2Tech® technology provides enhanced moisture and mold resistance

Specially engineered to provide enhanced protection against mold growth, M2Tech® achieves the best possible score of 0 for mold resistance per ASTM G 21 and 10 per ASTM D 3273.



Why it's important to improve indoor air quality.

There is a rapidly growing awareness of the importance of indoor air quality and its impact on health and productivity. Research indicates that people spend approximately 90 percent of their time indoors. Yet VOCs** and other contaminants are typically found throughout schools, hospitals, offices and residences.

Factors affecting indoor air quality.

The indoor environment is affected by many factors, including the climate, building system/components, occupants, and potential contaminant sources such as furnishings, moisture sources, work process and activities and outdoor pollutants.

Where are the pollutants coming from?

Volatile Organic Compounds

Unsealed plywood or particle board
Urea Formaldehyde foam insulation
Treated fabrics (permanent press, anti wrinkle, waterproof finishes, etc.)
Glues
Carpets and furniture
Carbonless copy paper
Computers, copiers and printers
Cleaning materials
Paints, solvents, adhesives
Smoke
Perfumes, hair sprays

Microbial matter

Mold and mildew due to wet and damp materials

Carbon monoxide

Automobile exhaust (garages, loading docks, air intakes), combustion, tobacco smoke

Carbon dioxide

People, combustion of fossil fuels (e.g., gas and oil furnaces and heaters)

Particulates

Smoke, air inlets, paper, duct insulation, water residue, carpets, HVAC filters, housekeeping

Temperature and humidity extremes

Improper placement of thermostats
Poor humidity control
Leaks
Computers and other office equipment

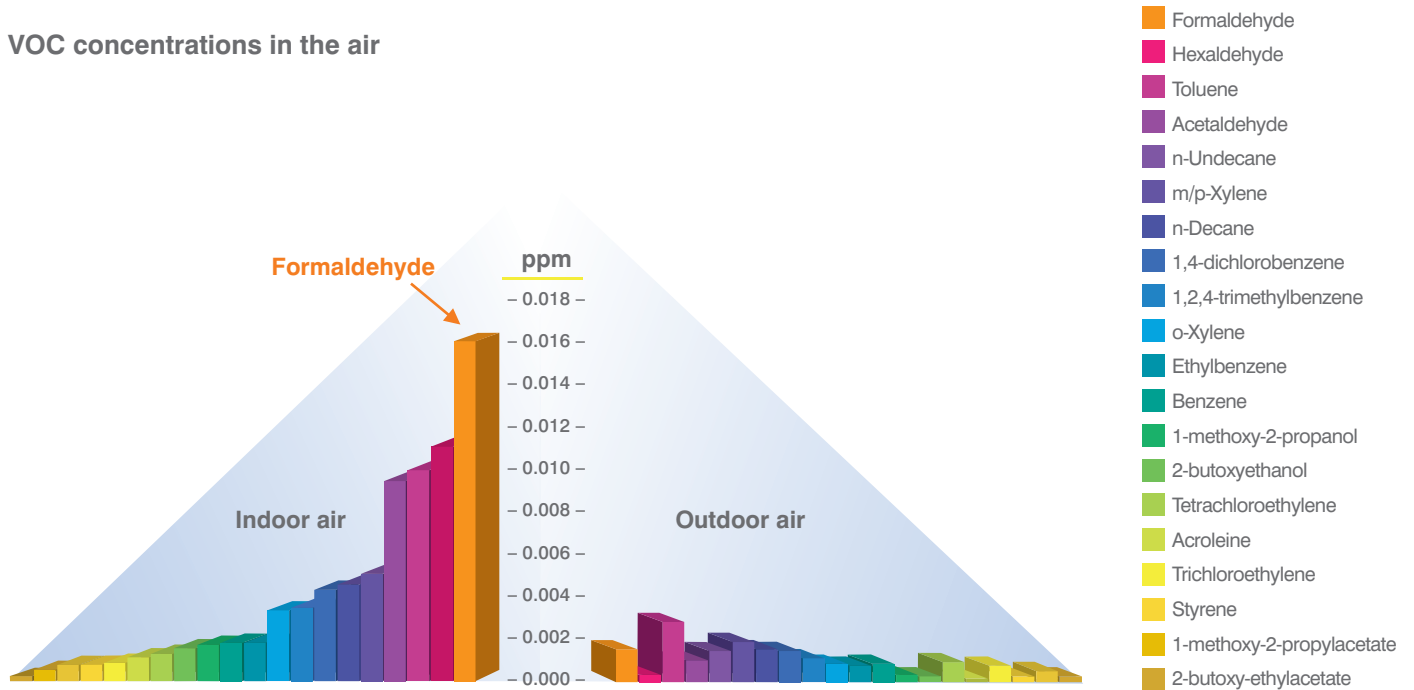
Air circulation and ventilation

Energy-saving and maintenance measures, improper system design or operation, occupant tampering with HVAC system, office layout, unbalanced system

* Patent pending

** VOCs (volatile organic compounds) - formaldehyde and other aldehydes.

VOC concentrations in the air



Analysis of chemical concentrations in residences, daycare centers and school buildings indicate that VOCs (volatile organic compounds) are the most prevalent pollutants, with significantly higher levels in indoor air than in the outdoor atmosphere.

As this table shows, 3 of the 4 most prevalent VOCs in the air are aldehydes, and at the top of this list is formaldehyde, which cause many health problems.

How mold affects air quality.

Mold is also a serious concern when it comes to indoor air quality. The potential health effects associated with mold exposures include allergic reactions, asthma and other respiratory complaints. There is no practical way to eliminate all mold and mold spores in the indoor environment, but specifying moisture and mold resistant building materials such as AirRenew™ and other CertainTeed and M2Tech® gypsum board products, greatly reduces the potential for mold problems.



Poor indoor air quality has been linked to headaches, fatigue, concentration problems, allergies, asthma, and more.

AirRenew™'s innovative new technology* permanently reduces VOCs** for up to 75 years



Permanently reduces VOCs** even after multiple renovations.

Provides up to 75 years of VOCs** absorption, based on tests and analysis.

Can be used with most water based acrylic paints and breathable wallpaper.

A passive system — more effective in reducing VOCs** than additional ventilation.

- Can be recycled the same as regular gypsum board.
- Can be sent to landfill, if permitted locally, without polluting ground water and is not harmful to humans or animals.



Provides an additional zone of protection against moisture and mold.

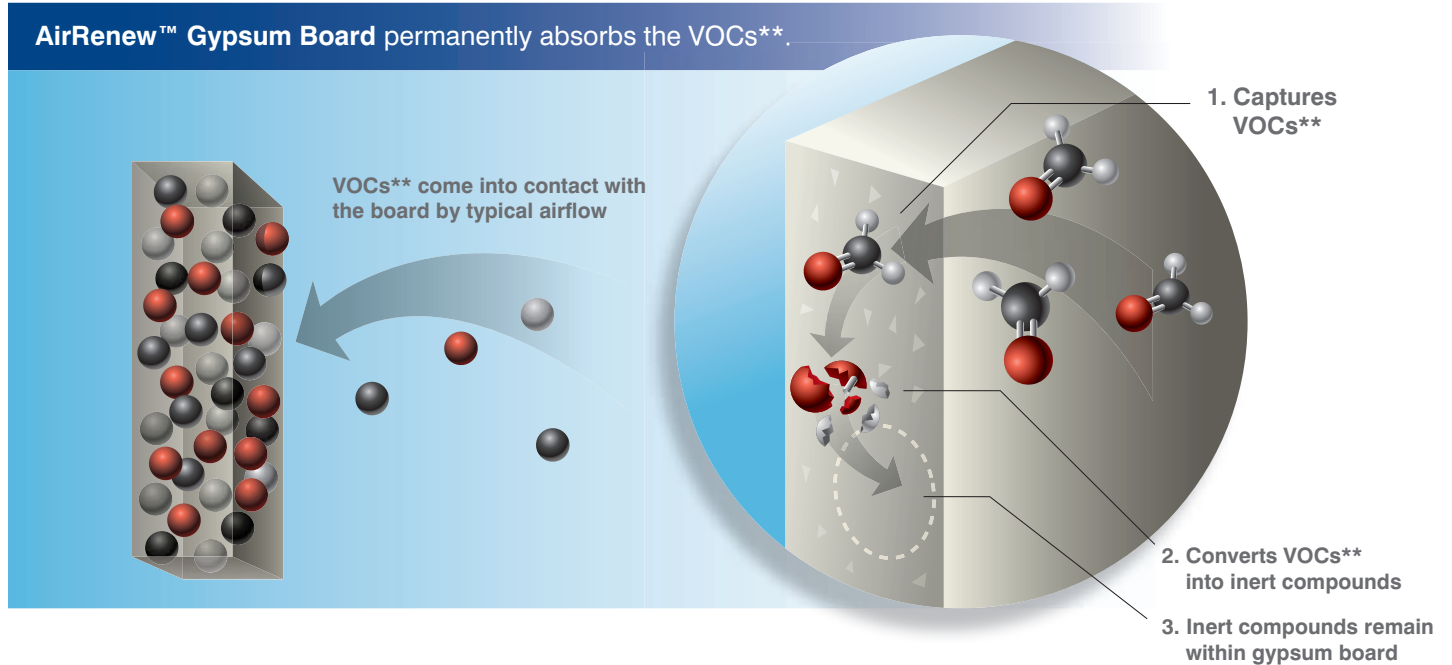
- Achieves scores of 10 and 0 for mold resistance per ASTM D 3273 and ASTM G 21, respectively; the best possible scores for these tests.***

*** The performance of AirRenew™ Gypsum Board in actual use may not accurately reproduce the results achieved in this ASTM laboratory test. Good design and construction practices that prevent water and moisture exposure of building products are the most effective strategy to avoid the growth of mold.

* Patent pending

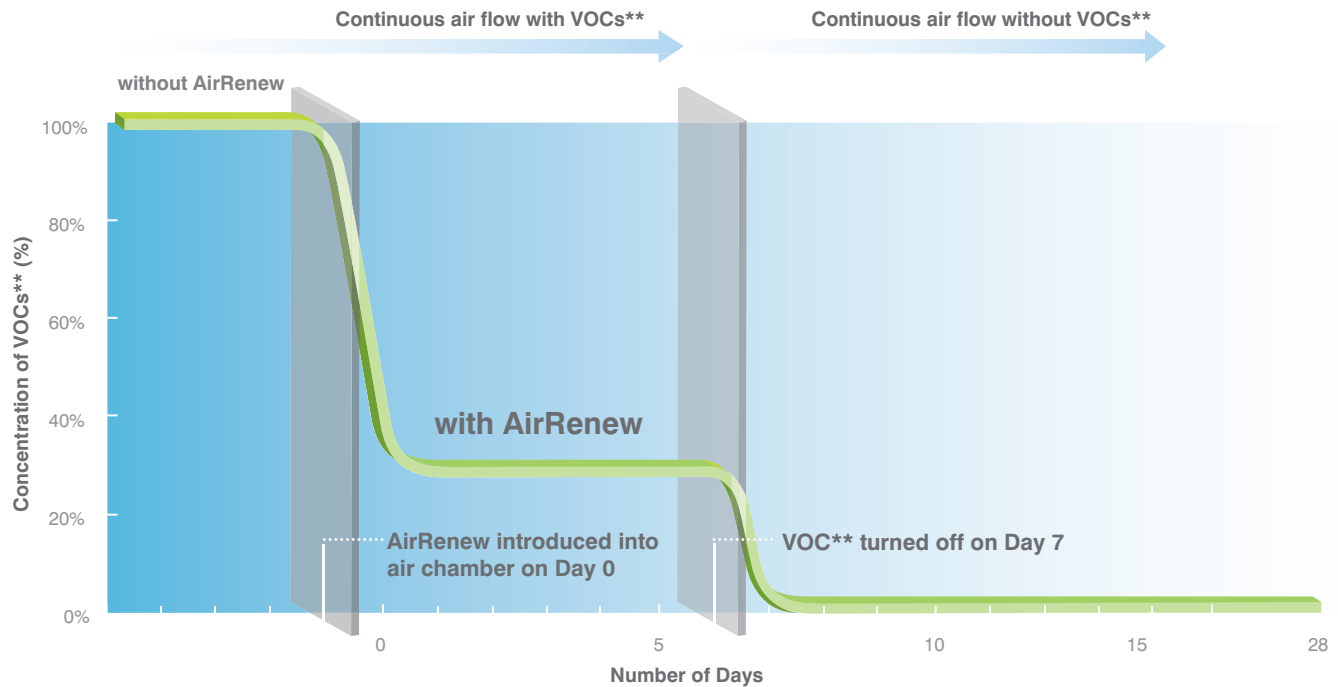
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How AirRenew™ cleans the air



Effectiveness of AirRenew™ on VOCs** reduction

Laboratory test using ISO16000-23 test method



ISO 16000-23: Indoor air — Performance test for evaluating the reduction of formaldehyde concentrations by sorptive building materials.
Third-party witnessed tests conducted at CertainTeed Research Center in Blue Bell, PA.



Improves air quality and provides peace of mind for generations with two new technologies*. It cleans the air by permanently removing VOCs** circulating indoors and has superior M2Tech® technology, providing enhanced moisture and mold resistance.

- Numerous fire-rated assembly designs for safety and performance
- 5/8" (15.9 mm) Type X gypsum core, UL Classified, and ULC Listed for Fire Resistance
- AirRenew™ Type X may be substituted for CertainTeed Type X and M2Tech® Type X gypsum board in UL/ULC fire rated assemblies
- Lightweight gypsum board that handles like other CertainTeed gypsum boards
- Does not require special tools
- Easy to cut and install
- May be finished, painted with most water based acrylic paints or, covered with breathable wall paper using conventional gypsum board techniques.

Product Specifications

AirRenew™ is produced in 1/2" (12.7 mm) and 5/8" (15.9 mm) Type X thicknesses. 4' (1220 mm) width and 8', 10' and 12' (2440, 3050, 3660 mm) lengths. Installation is fast, easy and efficient.

Product	Product Standards	Federal Standard SS-L-30d	Application Standards
AirRenew™	ASTM C 1396 / CAN/CSA-A82.27	Type VII Grade W (1/2") Type VII Grade W, X (5/8")	ASTM C 840, GA-216 CAN/CSA-A82.31
1/2" (12.7 mm), 5/8" (15.9 mm) AirRenew™			
Widths, ft (mm)	4 (1220)		
Standard Lengths, ft (mm)	8, 10, 12 (2440, 3050, 3660)		
Edges	Tapered		
Mold Resistance Rating*** (ASTM D 3273 and G 21)	10 and 0		
Flame Spread /Smoke Developed (ASTM E 84 / CAN/ULC-S102)	5/5		
Core	Type X – 5/8" (15.9 mm)		

* Patent pending

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*** No mold growth detected. Note – 10 and 0, respectively, are the best scores possible for these tests.



ASK ABOUT ALL OF OUR OTHER CERTAINTEED® PRODUCTS AND SYSTEMS:

ROOFING • SIDING • TRIM • WINDOWS • DECKING • RAILING • FENCE
INSULATION • GYPSUM • CEILINGS • FOUNDATIONS • PIPE

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