

Gyproc® Activ'Air®

Cleaner and healthier air for your future



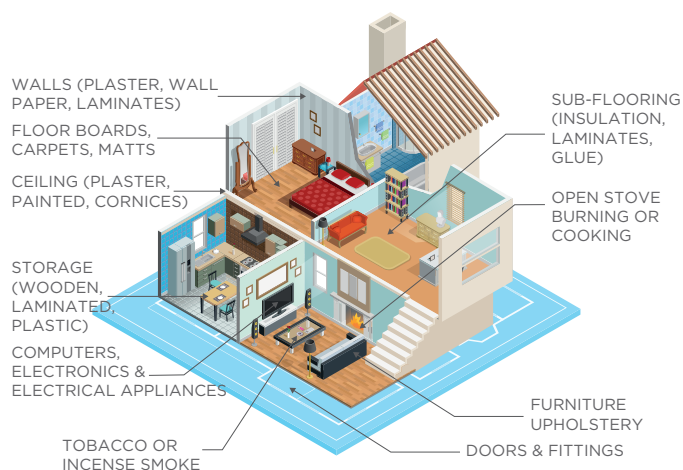
Activ'Air® is a new technology that can be added to any Gyproc® gypsum plasterboard. It is designed to decompose formaldehyde emissions into non-harmful inert compounds, eliminating the risk of re-emission. Activ'Air® is available as an optional additives upon request to all Gyproc® gypsum plasterboard products.

Activ'Air®

Clearing the air to reduce volatile organic compounds such as formaldehyde

Formaldehyde is a colourless, flammable, strong-smelling chemical used in building materials, and to produce many household products. It is used in pressed-wood products, such as particleboard, plywood, and fibreboard; glues and adhesives; permanent-press fabric; paper product coatings; and certain insulation materials. In addition, formaldehyde is commonly used as an industrial fungicide, germicide, disinfectant, and as a preservative in mortuaries and medical laboratories. Formaldehyde occurs naturally in the environment, produced in small amounts by most living organisms as part of the normal metabolic process.

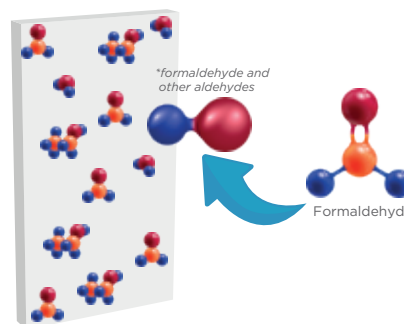
Common sources of indoor air pollutant exposure



The most common way to be exposed to formaldehyde is by breathing air containing formaldehyde. This usually occurs in indoor environments where the gas has been released from formaldehyde-containing products. Exposure to liquid formalin may be through the skin or by ingestion.

How Activ'Air® cleans the air

Gyproc® Activ'Air® captures formaldehyde-filled gases in the air and converts formaldehyde and other aldehydes into inert compounds.



Gyproc® Activ'Air® then traps formaldehyde within the board for up to 50 years, based on tests and analysis.



How can formaldehyde affect my health?

Breathing air containing low levels of formaldehyde can cause burning and watering eyes. As levels increase, it can cause burning of the nose and throat, coughing, and difficulty in breathing. Some people may be more sensitive to formaldehyde and have effects at levels lower than expected. Strong mixtures of formaldehyde gas or liquid can cause irritation or a rash if they contact the skin. When swallowed, formaldehyde can cause severe pain, vomiting, and diarrhea. Formaldehyde that enters the bloodstream can produce effects similar to drinking too much alcohol.



ALLERGIC REACTIONS

- People have suffered dermatitis after wearing clothing that contained high levels of formaldehyde.
- After exposure to formaldehyde in solutions or resins used in clothing and textiles, people can become sensitive to formaldehyde and develop ongoing allergies.
- People who have become sensitized to formaldehyde may suffer asthma or contact dermatitis.

SKIN IRRITATIONS

- Skin rashes can result from exposure to formaldehyde. Symptoms from short exposure to formaldehyde vapour will usually disappear quickly, with no lasting effects, once exposure stops.
- Breathing formaldehyde vapour can result in the irritation of nerves in the eyes and nose. This may cause sore throat, teary eyes, blocked sinuses, runny nose, sneezing, stinging, or itching sensations.

Adverse effects on central nervous system in occupational settings where people have significant daily exposure to formaldehyde they may suffer:

- Headaches
- Depression
- Mood changes
- Insomnia
- Irritability
- Attention deficit
- Impairment of dexterity, memory, and equilibrium



How is formaldehyde associated with manufactured housing?

Products that contain formaldehyde compounds can release formaldehyde gas into the air. These compounds are found in our everyday use products which are commonly manufactured with materials such as plywood, particleboard, and other pressed wood products. The amount of formaldehyde released is greatest when the product is new. Formaldehyde is also released more readily at warm temperatures and high humidity.

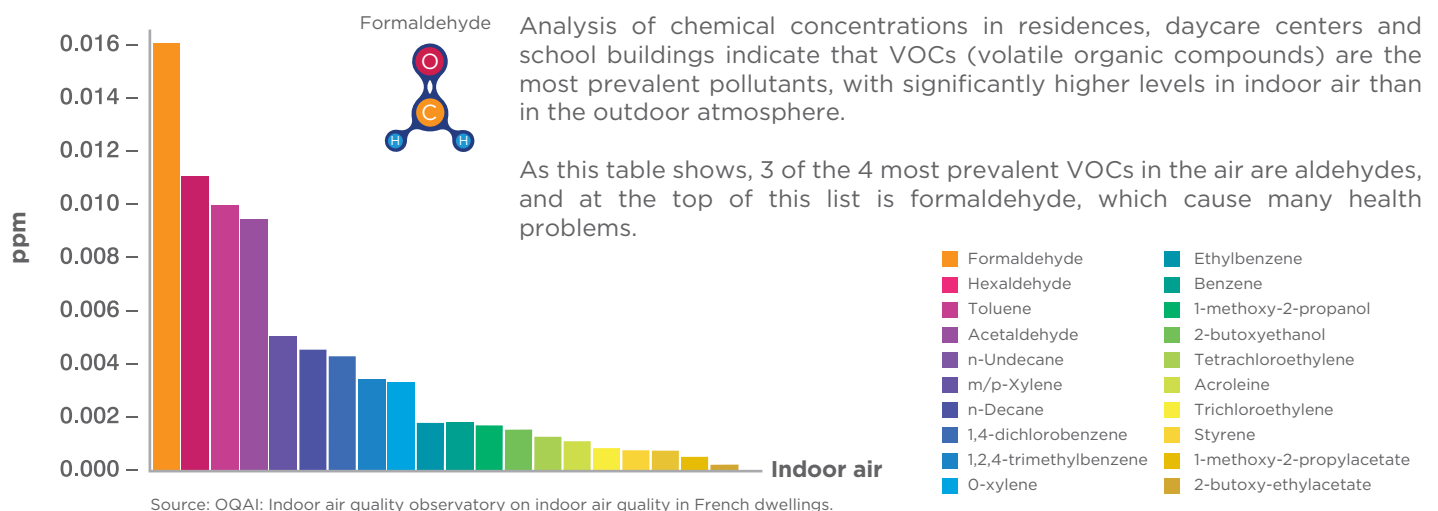
How do I know if I have formaldehyde in my home?

- Formaldehyde can be detected through the sense of smell even at very low levels due to its strong odour.
- Apart from new products that contains formaldehyde, daily activities such as cooking, smoking, cleaning or painting also contributes to formaldehyde being released into the air.

How do I reduce my exposure to formaldehyde?

- Increase airflow in the affected area by opening windows and doors. This lowers the level of formaldehyde by increasing the amount of outdoor air. Usually, the levels decrease, and odours are gone within a few days.
- Replace formaldehyde-containing materials with non-toxic, formaldehyde-free, green building materials such as Gyproc® Activ'Air® boards.

VOC CONCENTRATIONS IN THE AIR





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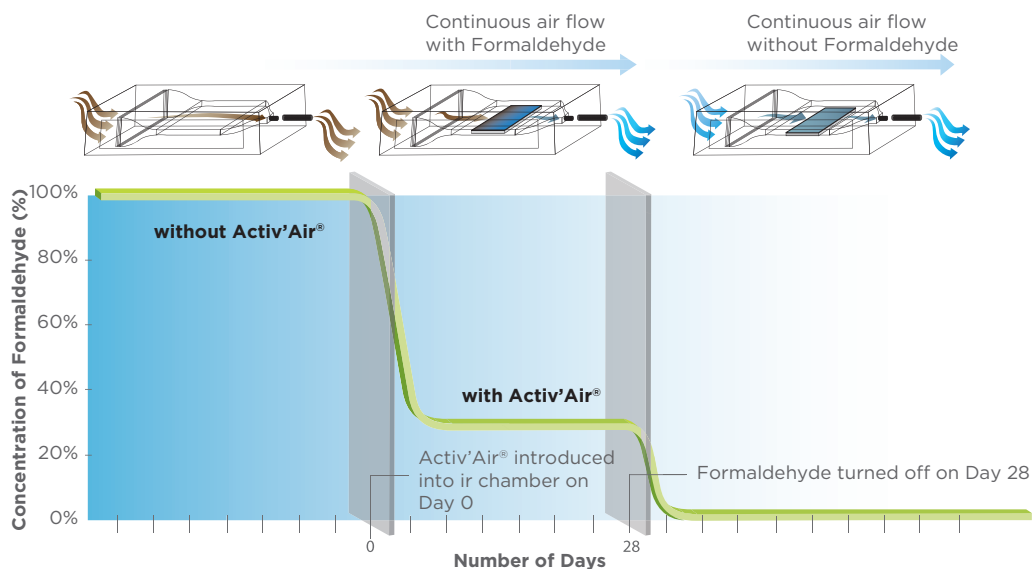
Effectiveness of Gyproc® Activ'Air® on formaldehyde reduction

The EUROFINS laboratory in Denmark tested the air-purifying effect of Gyproc® Activ'Air® against consistently high emissions of pollutants into the surrounding ambient air and thereby the effectiveness of the construction material in reducing pollutants levels (performance).

The figure shows that Gyproc® Activ'Air® performs significantly better than conventional gypsum fibre boards with no Gyproc® Activ'Air® complex and even permanently reduces the concentration of pollutants emitted on an ongoing basis by more than 70%.

HOW LONG DOES THE Activ' air PURIFYING EFFECT LAST?

Research and development departments have calculated in simulations that the material is effective for 50 years.



ISO 16000-23:Indoor air - Performance test for evaluating the reduction of formaldehyde concentrations by sorptive building materials.

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GYPSUM & CEILINGS ACTIVITY

Gyproc® Activ'Air® 0522



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