

CONDENSATION AND MOULD

Mould ?

Mould is a generic word designating several species of fungi, the spores of which are present in the atmosphere. Mould often appears in the form of green, brown or black stains. These stains appear in the corners of rooms, unventilated bathrooms and showers, around windows or wherever the walls and ceilings are poorly insulated -- or not at all.

Mould is almost always linked to the condensation of moisture. The growth of fungi is encouraged by overly humid air. At normal relative humidity (between 30 and 60%), mould lacks the humidity required for its development.

The most frequent causes of the appearance of moulds are:

- Excessive humidity inside dwellings;
- Insufficient ventilation (or even none at all);
- Insufficient insulation of ceilings or walls;
- Excessively low ambient temperature.

Anti-mould protection for houses and dwellings

The development of mould can, in most cases, be prevented or ameliorated by following a few rules relating to the correct use of ventilation and heating.

Bedrooms

The average adult – through respiration and perspiration -- produces approximately 25 cl of moisture during a night's sleep. This moisture is produced in the form of vapor, saturating the air of the room and condensing in the colder parts of the room (corners, window panes, concrete girders, etc.).

Unless the room is ventilated during the night, this tends to result in the formation of mould in the corners of the walls, behind furniture, and around windows.

Improper living habits relating to heating and ventilation may cause health problems, such as chronic infections of the respiratory tract.

To prevent or ameliorate these problems, care should be taken to ensure a permanent flow of fresh air, which should, however, be restricted to the bed room during the night. Sufficient exchange of air may be ensured by opening a window slightly during the night, while leaving the bed room door open.

In choosing a chassis, however, it is advisable to select a model possessing an integrated ventilation grid ensuring the permanent exchange of ambient air.

In the morning, the window should be completely opened for a quarter of an hour with the radiator turned off, while airing the bed. (During cold spells, the window should then be closed and the radiator heating valve turned back on).

Wall cupboards

People often contact us to report moisture and mould in wall cupboards. A wall cupboard is a wardrobe -- often nearly airtight -- intended for the storage of clothing or clean linen. Theoretically, the clothing is dry, but often still contains small quantities of moisture, which then evaporate in the poorly ventilated, cold environment of the wall cupboard. This is not an easy problem to solve: ventilation holes can be drilled in the wall cupboard; the doors can be equipped with "venetian blinds" (as long as they are not air tight). Wall cupboards can also be ventilated from the rear, etc. Particular care should be taken to dry the linen completely before putting it away.

Bathrooms

Bathrooms produce more water vapor than any other room in the house. This is why mould is very commonly found in bathrooms.

There are three easy, basic ways to prevent this problem:

- Keep the door closed when using the shower or bath to keep the humidity from spreading to adjacent rooms.
- Open the window at a 90 degree angle for an hour immediately afterwards, but leave the door tightly shut, to keep the moisture from stagnating and condensing inside the bathroom.
- When filling the bath, to produce less water vapor, fill the bottom of the bath with +/- 3 cm of cold water first, and add hot water afterwards.

The following tips may also prove very useful:

- Install the bathroom with an electric ventilator (air extractor) triggered by the light switch, accompanied by a ventilation grid in the bottom of the bathroom door.
- Bathrooms should be painted with washable paint, which is less favorable to the proliferation of mould than traditional paints.

Fungus on the joints in the tiles can be eliminated by cleaning the tiles from time to time with soapy water containing small quantities of bleach.

Kitchens

Mould in the kitchen is often the result of misuse -- or non-use -- of the cooker hood. Kitchens should be equipped with cooker hoods designed to extract the air to the outside.

Cooker extraction hoods should be left on for at least fifteen minutes after the production of any vapor.

Basements

Basements should be equipped with natural ventilation including two ducts, front and rear, if possible. Very damp basements should be equipped with ventilators connected to a time switch ensuring forced ventilation of the basement.

Linen

Drying linen inside the house is quite inadvisable, as it greatly increases ambient humidity.

Instead:

- Dry all linen outside; or
- Use an electrical condensation or evacuation tumble-dryer equipped with an evacuation duct to the exterior.
- If this is not possible, any room used for the drying of linen should be equipped with a dehumidifier.

An effective solution: IMV

If all these precautions fail to solve the problem, consideration should be given to the installation of an IMV (Invasive Mechanical Ventilation) system.

IMV compensates for the inadequacies of natural ventilation in existing dwellings, from small studios up to rooms measuring 450 m³.

IMV® is fully automated.

IMV® works on the principle of aspirating fresh air from the exterior, which is always drier than the air in the room (even in rainy or foggy weather, as long as the heat is turned on). The incoming air is filtered by the system, and is then sucked into the room, forcing any damp, humid air out of the room towards the exterior.

This is how Invasive Mechanical Ventilation® evacuates excessive humidity towards the exterior.

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