

CONDENSATION – ADVICE FOR HOUSEHOLDERS

It is well known that in recent years some houses and flats have suffered from condensation. Walls and ceilings, and sometimes floors, become damp and sometimes discoloured and unpleasant as a result of mould growing on the surfaces.

Why condensation occurs

Condensation occurs when warm moist air meets a cold surface. The risk of condensation therefore depends upon how moist the air is and how cold the surfaces of rooms are. Both of these depend to some extent on how a building is used. In a room with a cold outside wall, the temperature of which falls below the dew point temperature, it is quite normal for condensation to occur predominately on the lower parts of the external walls and may be confused with rising damp.

When condensation occurs

Condensation occurs usually in winter, because the building structure is cold and because windows are opened less and moist air cannot escape.

How Condensation occurs

Condensation which you can see occurs often for short periods in bathrooms and kitchens because of the steamy atmosphere, and quite frequently for long periods in poorly heated bedrooms; also sometimes in cupboards or corners of rooms where ventilation and movement of air are restricted. Besides condensation on visible surfaces, damage can occur to materials which are out of site, for example from condensation in roofs.

What is important?

Three things are particularly important:

- To prevent very moist air spreading to other rooms from kitchens and bathrooms or from where clothes may be put to dry.
- To provide some ventilation to all rooms so that moist air can escape.
- To use the heating reasonably.

How can you prevent condensation in your home?

- a. Good ventilation of kitchens when cooking or when washing or drying clothes is essential. If there is an extraction fan, use it when cooking or washing clothes, and particularly whenever the windows show any sign of misting. Leave the fan on until misting has cleared.
- b. If there is not an extractor fan, open the kitchen windows but keep the door closed as much as possible.
- c. After bathing, keep the bathroom window open and shut the door for long enough to dry off the room.
- d. In other rooms provide some ventilation. In old houses a lot of ventilation occurs through fireplace flues and draughty windows. In modern flats and houses sufficient ventilation does not occur unless a window or ventilator is open for a reasonable time each day and for nearly all the time a room is in use. Too much ventilation in cold weather is uncomfortable and wastes heat. All that is needed is a very slightly opened window or ventilator. Where there is a choice, open the upper part, such as a top-hung window. About 10mm opening will usually be sufficient.
- e. Avoid the use of portable paraffin or flueless gas heaters as far as possible. Each litre of oil used produces the equivalent of about a litre of liquid water in the form of water vapour. If these heaters must be used, make sure the room is well ventilated.
- f. If condensation occurs in a room which has a gas, oil, or solid fuel heating appliance with a flue, the heating installation should be checked, as the condensation may have appeared because the flue has become blocked.
- g. Do not use unventilated airing cupboards for clothed drying.
- h. If washing is put to dry in a bathroom or kitchen, open the window or turn on the extractor fan enough to ventilate the room. Do not leave the door open or moist air will spread to other rooms.
- i. Try to ensure that all rooms are at least partially heated. To prevent condensation, the heat has to keep room surfaces reasonably warm. It takes a long time for structures to warm up, so it is better to have a small amount of heat for a long period than a lot of heat for a short time.
- j. Houses and flats left unheated during the day get very cold. Whenever possible, it is better to keep heating on, even if at a low level.
- k. In houses, the rooms above a heated room benefit to some extent from heat rising through the floor. In bungalows and flats this does not happen. Some rooms are especially cold because they have a lot of outside walls or loose heat through the roof as well as walls. Even in well insulated houses with reasonable ventilation, it is likely to be necessary during cold weather to maintain all rooms at not less than 10°C in order to avoid condensation. When living rooms are in use the temperature should be raised to about 20°C.

Mould growth

Any sign of mould growth is an indication of the presence of moisture and if caused by condensation gives warning that heating, structural insulation or ventilation, or all three may require improvement.

Effect of increased ventilation on fuel burning appliances

If an occupier proposes to fix an extractor fan or otherwise change the ventilation in a room containing a gas or solid fuel appliance, he should obtain advice from the installer of the appliance about the risks from toxic fumes.

MOULD CONTROL GUIDANCE

Mould results from a lack of ventilation and excess moisture. The presence of dust and dirt on the surface provides ideal conditions for breeding of mould spores. High-risk areas are bathrooms, laundries and adjacent rooms. It is very difficult to prevent mould from forming, but quick action to remove it will preserve your painted surfaces.

First of all, treat the surface with a proprietary mould remover. Follow the manufacturer's instructions carefully. Alternatively you can make up your own mould remover using a solution of:

- 1 cup household bleach (sodium hypochlorite type)
- 9 cups water

Using this solution wash the surface with a soft brush or sponge.

Allow the solution to remain on the surface for 10 to 20 minutes before rinsing off thoroughly with clean water using a clean cloth. You may need to repeat this step if the growth is particularly bad. Allow the surface to dry.

Secondly, treat the surface with a proprietary fungicidal solution diluted as per the directions for use, then apply the paint in the usual way. Do not wash off the fungicidal solution.

For high-risk areas such as kitchens and bathrooms, it is possible to purchase paint which inhibit the growth of mould. Alternatively, mould inhibitors can be added at the point of purchase. Your local hardware store can provide expert advice on these paints.

Regular washing of interior surfaces with bleach solution will control most mould problems.

Read labels carefully before you use any chemicals and protect your hands with rubber gloves. Allow good ventilation where you work as bleach and fungicides can give off fumes.

Never paint over mould. Always treat the surface first, as any surviving mould spores will simply grow through the fresh paint.

The secret of success is to remove the mould completely. Once done and painted your room will look like new again.