

Identification & Eradication of Damp & Condensation

Types of Damp

There are four main types of damp that could affect your home:

- ❑ Rising Damp
- ❑ Penetrating Damp
- ❑ Plumbing Defects
- ❑ Condensation

It's important to understand the difference between them so that you can effectively treat the problem.

Rising Damp

This is caused by water rising from the ground into the home. The water gets through or round a broken damp proof course (DPC), or passes through the natural brickwork if the property was built without a DPC.

A DPC is a horizontal layer of waterproof material put in the walls of a building just above ground level. It stops moisture rising through the walls by capillary action.



Rising damp will only affect basements and ground floor rooms. It will normally rise no more than 12-24 inches above ground level (300mm-600mm) and usually leaves a "tide mark" low down on the wall. You may also notice white salts on the affected areas.

Rising damp will be present all year round, but is more noticeable in Winter. If left untreated, it may cause wall plaster to crumble and paper to lift in the affected area.

Note

- Black mould will very rarely be seen where there is rising damp (and then only in the early stages).
- This is because rising damp carries with it ground salts which prevent the growth of black mould.

Penetrating Damp

This type of damp will only be found on external walls, or in the case of roof leaks, on ceilings.

It only appears because of a defect outside the home, such as missing pointing to the brickwork, cracked rendering or missing roof tiles. These defects then allow water to pass from the outside to the inner surfaces.



Penetrating dampness is far more noticeable following a period of rainfall, and will normally appear as a well defined “damp patch” which looks and feels damp to the touch.

Note

- Black mould is very rarely seen on areas of penetrating damp.
- This is because the affected area is usually too wet, and the damp contains salts picked up when passing through the wall, which prevent the growth of black mould.

Plumbing Defects

Leaks from water and waste pipes, especially in bathrooms and kitchens, are relatively common. They can affect both external and internal walls and ceilings. The affected area looks and feels damp to the touch, and remains damp whatever the weather conditions outside.

A quick examination of the water and waste pipes serving the kitchen and bathroom, and the seals around the bath, shower and sinks; plus the external pipework, such as guttering will usually find the source of the problem.

Note

- Black mould will very rarely be seen on this type of dampness.
- This is because the area is usually too wet, and the chemicals in a waste water leak will prevent mould growth.

Condensation

Condensation is caused by water vapour or moisture from inside the dwelling coming into contact with a colder surface, such as a window or wall. The resultant water drops (condensation) may then soak into the wallpaper or paintwork or even plasterwork. In time, the affected damp areas then attract black mould that grows on its surface.



Condensation mainly occurs during the colder months, whether it is rainy or dry outside. It is usually found in the corners of rooms, north facing walls and on or near windows. It is also found in areas of little air circulation such as behind wardrobes and beds, especially when they are pushed up against external walls.

Note

- Black mould is almost always present with condensation dampness.

Condensation & Mould Growth

Most homes will be affected by condensation at some point. However, certain activities can increase the problem.

Condensation and mould growth is almost always due to the habits and lifestyle of the occupant, and is something that can easily be reduced or remedied. Cooking, washing, drying clothes indoors, even breathing - all produce water vapour that can only be seen when tiny drops of water (condensation) appear on colder surfaces such as walls, windows, ceilings or mirrors.

The amount of condensation in a home depends upon three factors:

1. How much water vapour is produced by the actions of its residents.
2. How cold or warm the property is.
3. How much regular air circulation there is (ventilation).

Simply turning up the heating will not sort out the problem, this may only temporarily reduce condensation.

All three factors may need to be looked at to reduce the problem.

The first sign of a problem is water vapour condensing on windows and other cold surfaces, which then takes a long time to disappear, allowing surfaces to become damp.

The second indication is black mould patches growing on these damp areas.

Black Mould

Mould spores are invisible to the human eye, and are always present in the atmosphere both inside and outside dwellings. They only become noticeable when they land on a surface upon which they can grow and then multiply.



For mould to thrive and survive it requires four elements:

1. Moisture - obtained from condensation
2. Food - such as wallpaper or emulsion paint
3. Suitable temperature – poor heating control
4. Oxygen – present in the atmosphere

By dealing with the causes of condensation, you will automatically deal with the problem of mould. However, the introduction of a Positive Input Ventilation Unit (Dri-master) will be ineffective unless space heating is also provided, and will not eradicate any other type of dampness or property defect.

Dealing With Black Mould

It is important to tackle any black mould that you may already have.

1. Carefully remove excess mould with a damp cloth and then throw it in the bin, or, if possible use a vacuum cleaner and empty after. Do not brush mould as this releases spores into the air.
2. Wipe down affected areas using a fungicidal wash or diluted bleach, 1 part bleach to 1 part water.
3. After treatment redecorate using a fungicidal paint do not paint over using an ordinary paint.
4. Dry clean mildewed clothes and shampoo carpets.

Deal With Any Issues Sooner Rather Than Later

If left untreated, damp issues will only get worse. It's very important that you deal with any issues you find as soon as you spot it. Dealing with issues early on can help prevent the possibility of incurring health implications to property users and damage to the property. Black mould spores (Penicillium) can contribute to respiratory problems, therefore it's essential it is eliminated without delay.

Four Steps to Reducing Condensation & Black Mould

The following four step plan can help to reduce the amount of condensation, and thus lessen the occurrence of black mould growth. Dealing with condensation is not easy, ordinary daily activities produce a lot of moisture.

Only carrying out one or two of the steps will not solve the problem, you need to implement all four steps

Produce Less Moisture

- ❑ Dry clothes outdoors. Avoid drying clothes indoors or if you have to, dry them on a clothes airer in the bathroom with the door closed and either an extractor fan on or a window slightly open.
- ❑ Vent tumble driers to the outside (never into the home).
- ❑ Where possible, cover pans when cooking or use an extractor hood if fitted, and avoid leaving kettles boiling.
- ❑ Avoid using liquid petroleum (bottled) gas heaters in the home. They produce large amounts of water vapour and are very expensive to run!

Remove Excess Moisture

- ❑ Always wipe the windows and window sills of your home every morning to remove any condensation.
- ❑ This is especially important in the bedroom, bathroom and kitchen - just opening the window is not always enough.

Ventilate to Remove Moisture

- ❑ It's important to remove condensation and excess moisture by ventilating rooms. You can ventilate a room without making draughts or causing it to become cold.
- ❑ To do this, you may only need to open the window slightly or use the trickle vent that can often be found on your windows. This allows warm (but moist) air to escape to the outside and let in cool (but dry) air.
- ❑ Always use any extract ventilation provided when using the kitchen or the bathroom. For other rooms, open a window and close the doors to prevent moisture in the air from spreading to other parts of the house. Continue to ventilate these rooms for a short time after a shower, a bath or cooking, and if possible keep the door closed!
- ❑ Leave space between the back of furniture like sofas and beds when next to cold walls (usually external walls).
- ❑ Ventilate cupboards, wardrobes and avoid overfilling them as this prevents air circulating.

Heat Your Home a Little More

- In cold weather, the best way to keep rooms dry and avoid condensation, is to keep sufficient background heat on all day rather than short bursts of high heat when you are in the house.
- Where present, use the heating controls on your radiators, room thermostats or timers. These will help control the heating throughout your house and manage costs. Remember, it is not cost effective in the long term to constantly switch your heating system off. It takes far more energy to reheat a cold house than to maintain a constant temperature.
- The right heating controls will let you keep your home at a comfortable temperature without wasting fuel or heat – so you'll reduce your carbon dioxide emissions and spend less on heating bills.

Common Household Moisture Producing Activities

Everyday activities add extra moisture to the air inside our homes. Even our breathing adds some moisture. One person while asleep adds half a pint of water to the air overnight and an active person adds twice that rate during the day.

For example, this is how much moisture you could be adding to the air in your home in a day:

- 2 people at home for 16 hours - 3 pints
- A bath or shower - 2 pints
- Drying clothes indoors - 9 pints
- Cooking and using your kettle - 6 pints
- Washing the dishes - 2 pints
- Bottled gas heater (8 hours use) - 4 pints

Warmth Versus Ventilation

Striking the right balance between warmth and ventilation is important and can be very effective. By partially opening windows or ventilating your home it may appear that you're losing heat, but what you're actually doing is letting warm moisture laden air out cool dry air in.

Many people who have double-glazing installed experience problems with condensation and mould growth on walls and furniture that they never had with their old draughty window frames. This is because all the natural draughts around the old windows have been sealed. However, by using trickle vents or opening windows slightly, then the necessary ventilation can be achieved once again.

Remember - the advice is to ventilate for short periods of time, not to leave the windows open all day!

Remember

Black Mould = Condensation

