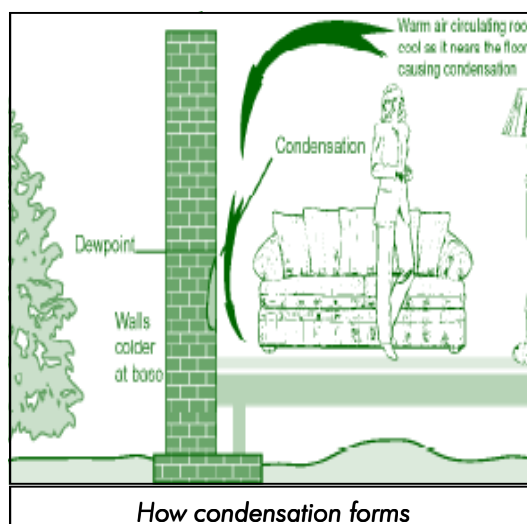


Condensation - A Modern Day Problem !

Condensation is by far the most common cause of dampness in buildings today, probably accounting for most of dampness problems reported. It affects both old and new properties, but appears to be a significant problem where the building has been modernised. At Premier Heritage we are finding more and more misdiagnosis of dampness problems in the winter months being attributed to rising damp rather than condensation. Of course, after such misdiagnoses, the installation of a damp-proof course and replastering has no effect and the problem just returns the following winter. Therefore, it is essential that dampness problems are correctly diagnosed. Condensation is associated with mould growth, and it is this that gives an idea of the potential scale of the problem. In many cases the mould and its spores ('seeds') give rise to complaints about health, and cause the 'musty' odour frequently associated with a damp house.

The cause: Warm air can hold more water as vapour than cool air. So quite simply, condensation is caused when moisture-laden air comes into contact with a cold surface - the air is cooled to a point where it can no longer hold its burden of water vapour. At this point water begins to drop out of the air, and is seen as condensation. And where condensation occurs, long term severe spoiling can occur. This usually takes the form of black mould growth, but occasionally it can cause timbers to rot.

So where does the water come from? - from our daily activities such as breathing, washing, drying, cooking, etc. Indeed, an average family can produce as much as 14 litres of water as vapour per 24 hours. It is this water generation, or rather the excess of it, which is the primary cause of the condensation.



Typical condensation on a window

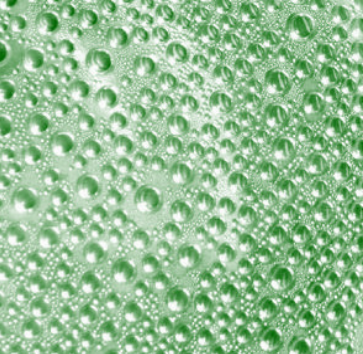
Recognising condensation: Condensation is very much "seasonal", occurring during the colder months - October to April. During the winter ventilation of the house is usually low - windows and doors are closed, and draught proofing takes place. This allows a build up of water vapour in the house, which, in some cases, is sufficient to cause condensation. So during the colder months the following signs begin to appear:

Water droplets form on cold impervious surfaces such as glass, paint.

Slightly damp wall paper (often not noticed).

Musty smells in various rooms, bathrooms, cupboards and wardrobes.

Development of moulds, usually black mould, in areas where there is little ventilation such as window reveals, floor/wall and floor/ceiling junctions, behind furniture against colder walls, and in the classic triangular pattern in corners.



Condensation - A Modern Day Problem !

The cure: The cure, or rather the control of condensation, is based on two very simple primary measures supported by a number of secondary measures.

Primary measures:

Improve ventilation: This will sweep away the internal moisture laden air and replace it with drier air from outside (yes, external air is drier than internal air most of the year!).

Ventilation is simply achieved by opening a few windows and use of extractor fans. However, it is most effective to remove the water vapour from where it is mostly generated, e.g., kitchens and bathrooms. This is best achieved by the installation of a powered extractor fan. Better still, rather than leaving the occupant to judge moisture levels before switching on, use a humidistat controlled unit - this will only activate when moisture levels in the atmosphere reach levels at which they may begin to cause a problem. It is also important to allow free airflow around furniture especially where it is against cold walls to prevent a local build up of condensation/mould behind furniture.



Extensive mould growth to stairwell

Heating: Coupled with ventilation, heating should be set to give a low-level background heat. This will ensure no rapid changes to the environment, and will also facilitate slight warming of wall surfaces over a period of time thus reducing the risk of condensation.

Secondary measures:

Remove excess water sources: This means removing systems within the house that generate excess water vapour. For example, bottled gas and paraffin heaters generate enormous amounts of water vapour, and these alone may be totally responsible for condensation.

Dehumidifiers: These are becoming more popular. They remove water from the atmosphere; the lower the water content then the lower the risk of condensation. One strategically placed dehumidifier can be very effective.

Mechanical ventilation: Positive pressure systems involve fresh dry filtered ambient air being continuously introduced, diluting and displacing stale moist air, whilst at the same time improving general air quality throughout the property.

Anti-mould washes: The greatest problem with long-term condensation is inevitably the associated mould growth, most frequently visible as black spot mould. Anti mould washes will kill and remove the growth but usually their effectiveness is short lived. Professional condensation mould eradication kits are available which are much more effective. Please contact us for further information.

Anti-mould paints: These are particularly useful where there is a high risk of mould growth, e.g., kitchens and bath-rooms, and also where condensation is particularly difficult to control. They are applied like standard emulsions, and must not be decorated over once applied. Some remain effective against even the most severe mould growth conditions for in excess of five years.

For Further Information please contact:

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