

White Horse - A Question of Condensation

What is Condensation?

The air around us is more often moist than dry.

The warmer the air becomes the more moisture it can hold, but if the air is suddenly cooled the moisture will condense on the nearest cold surface.

That is why when a warm day is followed by a cold night the result is a very heavy dew or early morning mist. This is because the moisture has reached the "dew point"

At higher temperatures the air can hold more moisture.

So, if your home is nice and warm the air in it will be able to hold more moisture before it starts to condense. However, in your bathroom, when the shower's in use, there's so much steam that the air will get saturated (100% relative humidity) very quickly.

Once the air's saturated, condensation will form on any surface that is at the same temperature or lower than the air temperature.

This also happens in cold mornings in a car when the temperature has dropped, the remedy is warm air circulation and ventilation.

The same principle applies within your home, but condensation can be simply and effectively prevented by understanding the factors which cause it.

What causes Condensation? - Moisture laden air

Did you know that:

- Each of us exudes from the lungs 1 pint of water every 24 hours
- A flueless gas appliance Produces 6 pints of water Per therm burnt
- Bottled gas and paraffin heaters Produce 10 pints of water for Every gallon of oil or gas burnt

These growths are easily removed from wall surfaces by the use of a household bleach solution, but are less readily dealt with on clothing, furnishing and bedding fabrics.

There is little point in removing the mould growths unless the conditions which allow them to thrive are dealt with.

Use kitchen roll to dry the windows and doors in the morning and flush away the paper.

How can this be done?

How to prevent Condensation.

You can reduce the risk of condensation if you follow these simple rules:-

Ensure that the temperature indoors is higher than outdoors by maintaining continuous background heating throughout the winter months.

Keep your dwelling well ventilated.

Recommended comfort conditions for rooms are as follows:

Living and Dining Rooms	17° to 21° C
Kitchen	13° to 18° C
Bedrooms	10° to 16° C
Halls and Landings	10° to 16° C
WCs	10° to 16° C
Bathrooms	10° to 21° C

The effects of Condensation

Condensation can be easily seen when it occurs on impermeable surfaces, such as glass, gloss paint, vinyl and similar wall coverings.

However, with absorbent surfaces, which act like a sponge by soaking up the water, little moisture is visible until the surface is completely saturated.

The effects of condensation, whether seen or unseen, are severe. If it is allowed to continue unchecked mould growth will appear.

If we also realise that large amounts of water are produced by the following domestic activities it can be seen how the risk of condensation is increased.

- Bathing
- Cooking
- Washing & drying clothes

Even the most modern houses need some condensation management during colder months, wiping off excess moisture from glass & front doors is a great start.

Inadequate and Intermittent Heating

You may have discovered that the internal air temperature of your dwelling can be quickly and cheaply raised in the mornings and evenings by using electric, paraffin or bottled gas heaters instead of the heating system provided.

Will this increase the risk of condensation?

The answer to this question is yes – Because,

1. Although the air temperature can be rapidly raised, the structure of the dwelling takes much longer to heat up.
2. The rapid rise in air temperature is often accompanied by the release of a large amount of water vapour produced from bathing, cooking and washing.

3. As soon as the moisture laden air comes into contact with cold wall surface then condensation takes place. (This can be simply demonstrated by breathing on a cold pane of glass. The mist produced is condensation).

SO REMEMBER -

The materials used to build your new home have absorbed approximately 1,500 gallons of water during the construction process. It is therefore important, particularly during the cold and humid winter months, that the correct balance is achieved to control the risk of condensation and to reduce the extent of shrinkage. Use your heating sparingly but continuously to achieve an even background temperature and to gently 'dryout' your new home.

Inadequate or intermittent heating is no substitute for continuous background heating.

If you have a central heating system in your dwelling, it can be operated and controlled automatically and safely while you are out.

The heat produced when you are out will not be wasted but retained by the insulation.

Ventilation

Poorly ventilated dwellings increase the risk of condensation, so leave windows and internal doors open whenever you can to improve air movement and so release moisture laden air.

The installation of an extractor fan in the kitchen and bathroom will also assist.

It would also be advisable to check your roof space occasionally to ensure that the ventilation at eaves level has not become blocked. Do not use your roof for storage purposes.

Keep kitchen and bathroom doors shut and windows open when:

1. Cooking
2. Washing and drying clothes
3. Before and after bathing

Less steam will be produced if you run the cold tap first.

Allow the warm air to circulate to the colder parts of the dwelling by leaving doors open (except kitchen and bathroom)

AVOID USING PARAFFIN, BOTTLED GAS AND OTHER VAPOUR PRODUCING HEATERS.