HOME
GUIDE

TIPS AND INFOS

Avoiding Dampness and Mould

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How mould forms

Damp corners in rooms and mould development around windows, corners of rooms and behind large furniture elements, and even on the floor! And this just during the damp and cold time of the year. Then the outer wall of the building must be leaking! Or does the moisture come from the apartment above? Most tenants offer this complaint to the housing provider about the dampness and mould formation in their apartment.

Weblinks & Podcasts

Heating entails high costs and is the greatest energy consumer in the household – See **www.umweltbundesamt.de** and learn more about this topic.

How does mould arise and how can one prevent it from forming – you'll find tips and tricks under: **www.co2online.de**

You'll find ideal humidity levels for living space under: **www.utopia.de**

Everything about mould in the apartment, what you can do about this, and where to find help: **www.verbraucherzentrale.de**

When an official expert explains after examining the situation that irregular heating and too little or improper ventilation are the cause of dampness and mould formation, many tenants are irritated and answer „I heat and ventilate just as I always have, when I didn't yet have plastic windows".

In earlier times, apartments had simple wooden-frame windows without dual-pane glazing and wooden flooring. Curtains, upholstered furniture and bedding were of natural fibres, which behaved differently in relation to internal dampness (condensation emission) than synthetic fibres.

Today, though, we live in apartments with dual-pane glazing. The flooring is often made of synthetic material and the walls are covered with coated wallpaper, which allows almost no water to pass through.

Because today heating is more expensive than before, during the day heating is often tuned down or shut off entirely, resulting in dampness emissions – the initial prerequisites for mould formation. Day and night, we ourselves emit moisture. Furthermore, home plants or such activities as washing, showering or cooking produce dampness and pass his to the air in the room, which normally cannot take this up completely. When the house is also poorly insulated, mould can form within a short time.

0.5

litres of water vapour are emitted every night by an adult.

SOURCE: VERBRAUCHERZENTRALE

Why properly heating and ventilating are so important

As a rule of thumb, we can say that the assimilation of dampness increases at higher room temperatures and vice versa. The best example that makes us aware of the moisture level in the room is that of wet or fogged tiles and mirrors in the bathroom after showering. The smooth surfaces in the often cooler bathroom have a lower surface temperature and immediately fog over, because the humidity in the bathroom is converted to condensation (liquefaction of the humid air) by the cooler temperature.

If no adequate exchange of air takes place after showering, the dampness remains in the room. Over a longer period of time, damp spots are formed and mould can settle onto these.

Let us now look at the bedroom, which should have lower temperatures than the living room, for example, to ensure healthy sleeping and recall that every adult emits half a litre of moisture to the air over night. This explains why mould problems occur more frequently in bedrooms. Moreover, here there are mostly flat furniture elements, such as a bed and a wardrobe, which cover large parts of the wall, so that the air behind them can no longer circulate adequately. These are potential areas for mould.

But why was all this apparently much less of a problem in earlier times than today? Before, furniture, home textiles and clothing, and ultimately the - sometimes even porous - plastering on the walls, which during times of high humidity in the room took up this

The following values are recommended for orientation:

Cold weather (below app. +5 °C)

- at 22-24 °C room temperature 30-40 % relative humidity
- at 19-21 °C room temperature 40-50 % relative humidity
- at 16-18 °C room temperature 50-60 % relative humidity

Mild weather (+5 °C to 15 °C)

- at 22-24 °C room temperature 40-50 % relative humidity
- at 19-21 °C room temperature 50-60 % relative humidity
- at 16-18 °C room temperature 60-70 % relative humidity

moisture and emitted this again with little effect. In addition, untight windows and doors in the living space permitted a more frequent exchange of air than today.

Heat and ventilate properly

- **Uniform heating:** Heat all rooms adequately (on the average 20 °C) and, as well as possible, continuously. This is also true for rooms which are not used continuously or in which you wish to maintain a lower temperature.

- **Close doors between rooms with different temperatures:** Always keep the doors to rooms with less heating closed. The temperature regulation in these rooms is governed by the radiator found in the room.

- **Do not obstruct air circulation:** This means placing furniture elements app. 10 cm away from the wall. This is particularly important at outer walls. You should also avoid room partitions.

- **Inrush airing:** Keep the heat loss as low as possible. This functions by brief, intensive ventilation. Windows and doors should be opened wide 3-4 times per day for 5-10 minutes. During this time turn the radiator valves and room thermostats down.

- **Keep radiators free:** Don't obstruct the thermal output from radiators with long curtains or furniture. Heat accumulation increases the heat loss to the outside.

- **Humidity:** Depending on the temperature and the weather, the optimal humidity level lies between 30 and 60 %. As a rule, you can control the humidity with a thermo-hygrometer or a smart home solution.

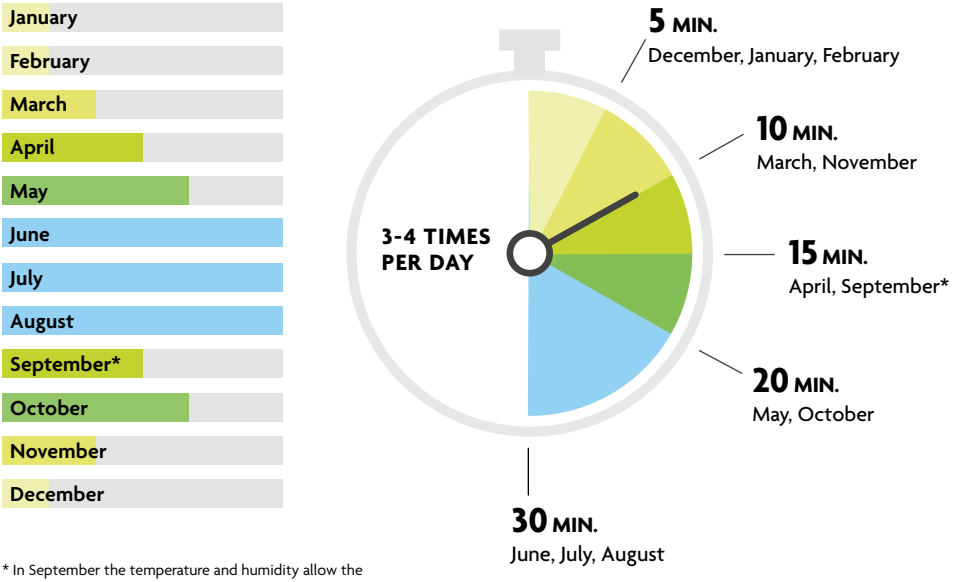
- **Greater amounts of water vapour,** which arise in certain rooms e. g. as a result of cooking or showering should be immediately discharged to the outside by specifically ventilating. During this time, the doors should be kept closed if possible so that the water vapour cannot spread into the entire apartment.

What to do in the event of mould?

Spores and mould are damaging to health and should be removed at the first sign of their occurrence. However, control agents can also be toxic, so that you should always consult a specialist. To remove mould yourself, it is essential to wear protective clothing and a face mask and to make certain not to stir up dust while working in order to prevent mould spores from circulating throughout the room.

- **As a rule of thumb:** If the mould infestaton is new and covers only a small area, superficial removal with an antimould

Inrush ventilation should be this long



* In September the temperature and humidity allow the faster exchange of air and thus shorter ventilation times.

SOURCE: CO2ONLINE.DE

control agent is usually sufficient. These fast-acting mould removers contain chlorinated agents which destroy the spores within a short time.

- Mould can also be removed more easily using alcohol-based mould removers with 80 % ethanol or hydrogen peroxide.
- If the infestation is older and covers a larger area, the mould has probably penetrated paint and wallpaper or the existing plaster structure. Superficial treatment is then no longer sufficient, and it is necessary to consult an official expert, as agreed with the lessor, for the performance of the work required (removal and renewal).

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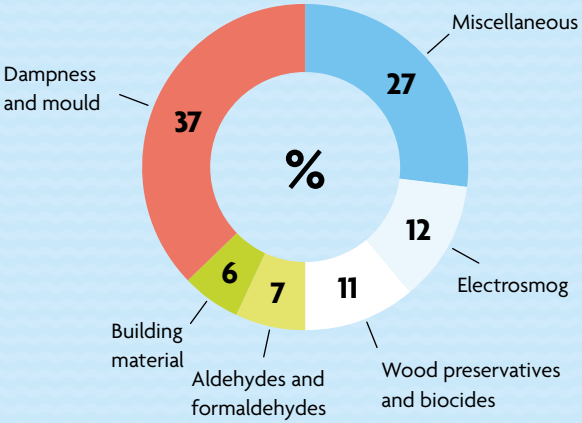
CLOSE THE DOORS WHILE SHOWERING
This prevents the spreading of water vapour throughout the apartment.
DAMPNESS
Remove moisture after showering. Dry wet places, joints and tiles with a squeegee or a cloth.


INRUSH VENTILATION
After showering or bathing, always carry out inrush ventilation so that the dampness can be discharged to the outside.
UNIFORM HEATING
Particularly in the bathroom, the radiators should maintain a constant temperature of 20-23 °C.

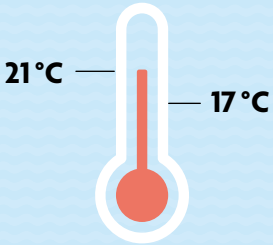
FACTS & FIGURES

MOULD

Mould is Problem Number 1 in the household.



SOURCE: SCHIMMELBERATUNG HANNOVER



COMFORTABLE TEMPERATURES

The temperature at which one feels comfortable in the living room is 21 °C and in the sleeping area 17 °C.

17 %

of all living space in Germany is infested with mould.

SOURCE: STATISTA 2020

DAILY MOISTURE EMISSION IN LITRES

1 – 1.5	Persons
0.5 – 1	Cooking
0.5 – 1	Showering, bathing (per person)
0 – 1.5	Drying laundry (spin drying)
2 – 3.5	Drying laundry (drip drying)
0.5 – 1	Home plants

6 - 12 litres

Daily moisture emission for a family

HEALTHY ROOM CLIMATE

The humidity in the room can be easily controlled with a thermo-hygrometer, which you can purchase in a hardware store for only a few Euros. Some smart home solutions also monitor humidity. If this value falls below 30 % no mould will form, but the dry air can irritate the mucous membranes. If this value is regularly more than 50 % in winter, the risk of mould developing increases.

SOURCE: VERBRAUCHERZENTRALE