Usage behavior and user information on ventilation/heating for LAMILUX skylights in residential, administrative and office buildings

LAMILUX skylights with maximum glass surface and high-quality materials are the highlight on the roof of every building. In addition to optimised thermal insulation values and proven durability, the main focus is on architectural design and comfort. The usage behaviour of our customers also plays an important role and contributes significantly to the successful and long-lasting overall benefit.

Cooking, washing, showering and human breath create a high level of humidity in our living spaces every day. Especially in the cold season, moisture forms on window panes and other cold room surfaces as a result of insufficient room heating if the humidity has become too high due to a lack of ventilation.

Correct and regular ventilation is essential, especially with skylights, as moist air is lighter than dry air and rises upwards, which can lead to condensation forming faster than with façade windows. Normally, the room air circulating through the heating system reduces the formation of condensation, whereas the shafts of skylights are flushed poorly, if at all, by the room air circulating through the heating system. The user can make a major contribution to avoid high humidity levels in the room by ventilating the skylights well.

DIN 1946-6 ‘Ventilation and air conditioning - Part 6: Ventilation for residential buildings - General requirements, requirements for design, construction, commissioning and handover as well as maintenance’ regulates the ventilation of flats and buildings. The minimum air exchange rate specifies how often the room air must be exchanged per hour in order to ensure good air quality. To this end, DIN 1946-6 shows possible solutions for achieving sufficient air exchange in flats.

In general, it is recommended to ventilate your home for a few minutes several times a day, especially when the outside temperature is low. On the following page you will therefore find some important information and tips on correct ventilation and heating[1].

We, as manufacturer, make our contribution in terms of energy efficiency and cosiness and offer a sophisticated overall design free of thermal bridges with our skylights. Based on DIN EN 4108-2 ‘Thermal insulation and energy saving in buildings - Part 2: Minimum requirements for thermal insulation’, introduced by the building authorities, our skylights are developed and tested under standardised conditions (-5°C outside temperature, 20°C inside temperature and 50% humidity).

[1] Bundesministerium für Umwelt, Naturschutz, nukleare Sicherheit und Verbraucherschutz - Richtiges Lüften und Heizen - Stand: 25.06.2024;
Umwelt Bundesamt - Tipps für richtiges Lüften - Stand: 09.04.2019;
Verbraucherzentrale NRW e.V. - Heizen und Lüften: So geht’s richtig - Stand: 23.10.2024

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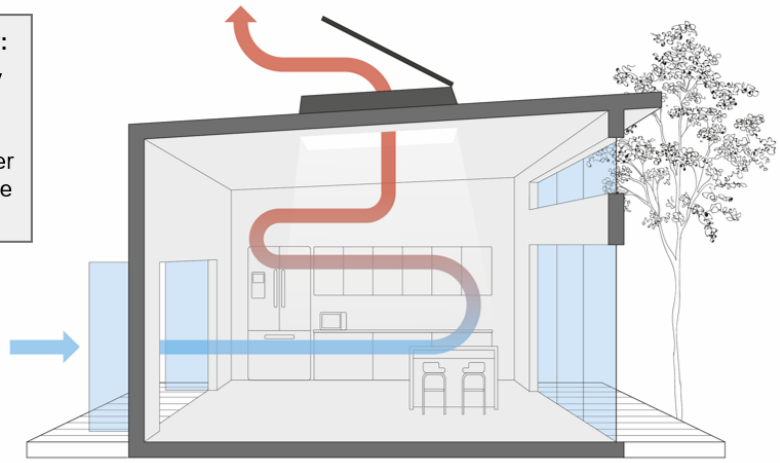
Tips for correct ventilation and heating:

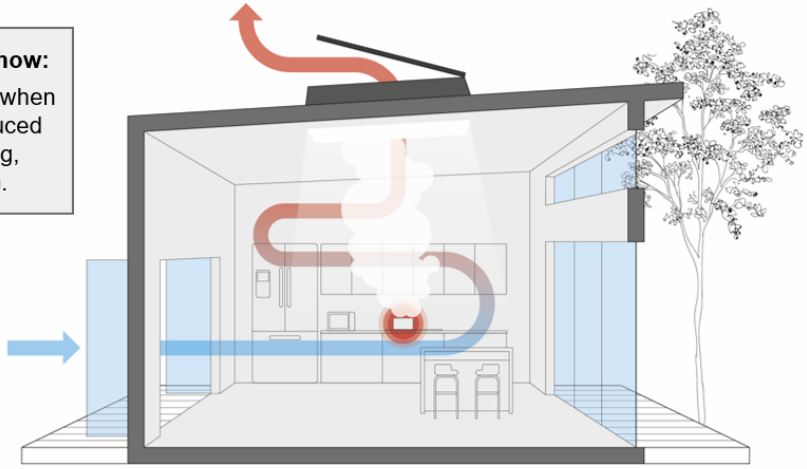
1) Impact ventilation

Ventilate properly - here's how:
Sufficient window ventilation only with at least four daily bursts of ventilation with the window wide open for approx. 2-10 minutes per ventilation (depending on the time of year: the warmer, the longer)



2) Ventilation in case of water vapour:

Ventilate properly - here's how:
Always ventilate additionally when a lot of water vapour is produced (cooking, showering, mopping, drying laundry, watering etc.).



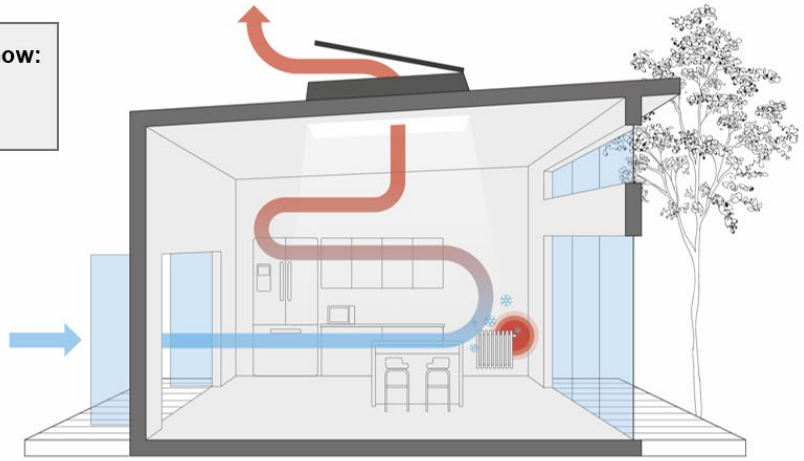
3) Sufficient heating:

Correct heating - here's how:

- Rooms at least 17 degrees Celsius (corridors 15 degrees Celsius, unless warmer air flows in from neighbouring rooms)
- Close doors to less heated rooms

4) Turn off the heater:

Ventilate properly - here's how:
Turn off the heater with the window open



5) Switch between day and night:

Correct heating - here's how:

- Only reduce the heating at night:
  - lower the temperature by a maximum of 3 - 4 degrees Celsius
  - do not lower the temperature below 17 degrees Celsius
- Keep the temperature constant during the day