



Useful information on

## Glass breakage due to thermal shock

### Prevention of glass breakage due to thermal overloading

Intense, uneven heating can lead to high levels of stress within the glass and, in extreme cases, trigger what is known as thermal shock, i.e. glass breakage due to thermal overloading. In the case of heat sources such as radiators, hot air outlets, dark furnishings, etc., a minimum distance of 30 cm from the glazing should therefore be maintained. Insulating glass must not be painted or covered with film. Partial shading should also be avoided, as this can result in very high temperature differences on the glass when the sun is shining.



In sliding door systems with heat and sun protection glass, direct sunlight can cause heat build-up between the panes when they are slotted one behind the other when open, which can also cause thermal shock. The same problem often arises with infrared-reflecting blinds or curtains with insufficient air circulation.

### Possible precautions

- Place dark furniture, sofa suites, etc. at least 30 cm away from the glazing.
- Ensure sufficient rear ventilation.
- Attach or operate external shading systems (however, avoid partial shading).
- Do not allow sliding doors or windows to be slotted behind one another in direct sunlight (see information sheet "Glass breakage in sliding doors and windows")
- Use of single-pane safety glass instead of normal float glass. This increases the threshold of resistance to temperature changes to 150°K. This measure prevents glass breakage caused by the effect of temperature.
- Where single-pane safety glass cannot be used for technical reasons, we recommend processing the edges (smoothing, grinding, polishing) and ventilating the gap so that the temperature change resistance threshold of 40°K is not exceeded under any circumstances