

Measuring food temperature correctly with infrared thermometers.



1 Distance from the measuring object

The closer the better. This ensures that only the measurement object is measured, and not its surroundings too. An IR thermometer, by the way, measures in a cone shape, not over a surface.

2 Measurement spot display

With increasing distance between the measuring instrument and the measurement object, the diameter of the measured area (measurement spot) increases. Make sure the measurement object is larger than the measurement spot. The smaller the measurement object, the closer to the object you need to go. **1 to 2 cm distance is ideal.**

3 Acclimatization time

Allow the **measuring instrument to adapt to the ambient conditions:** Either store an IR thermometer where it is used, or wait until the temperature of the measuring instrument has acclimatized to that of the measurement location.

4 Infrared = surface measurement

In non-contact measurement with infrared, only the surface temperature is recorded, e.g. in the case of boxes, it is only the surface temperature of the box which is measured! Cardboard is a bad heat conductor, so if possible open the box and measure directly at the product. **In the case of critical values, always verify with a contact thermometer!**

5 Optical disruptive factors

Packaged food must always be measured where the **product and the packaging are in direct contact.** Measurement at air pockets can falsify the result. Also always ensure that the surface is clean, so that neither dirt and dust particles nor frost influence the measurement. Also take care that the lens is not fogged or dirty – this too, can lead to false measurement results.

Examples for maximum temperatures of foods.

Food	Maximum temperature*
Quick-frozen foodstuffs	-18 °C
Minced meat	+2 °C
Fresh fish (in ice)	+2 °C
Fresh poultry	+4 °C
Processed fish (marinated, soured and smoked)	+7 °C
Other highly perishable foods, for example: baked goods with incompletely baked fillings or layers, freshly chopped salads and delicatessen salads	+7 °C
Pasteurized milk	+8 °C
Butter, cream cheese, soft cheese	+10 °C

* acc. to DIN 10508