

Information sheet on test in compliance with DIN 12880:2007-05

Just imagine that a long-distance runner runs 10 kilometres on flat terrain in 45 minutes. Another runner needs 50 minutes in hilly terrain for the same distance. Who is the better runner of the two?

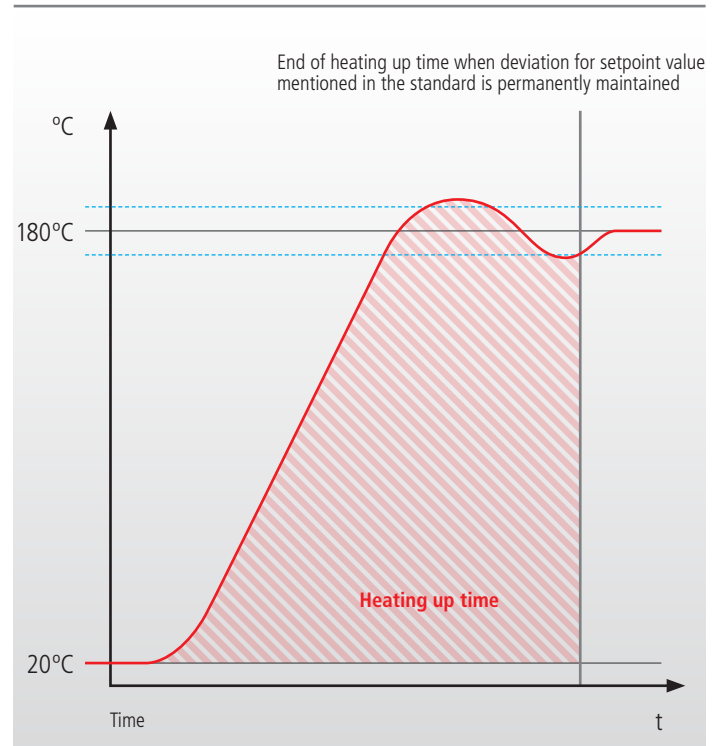
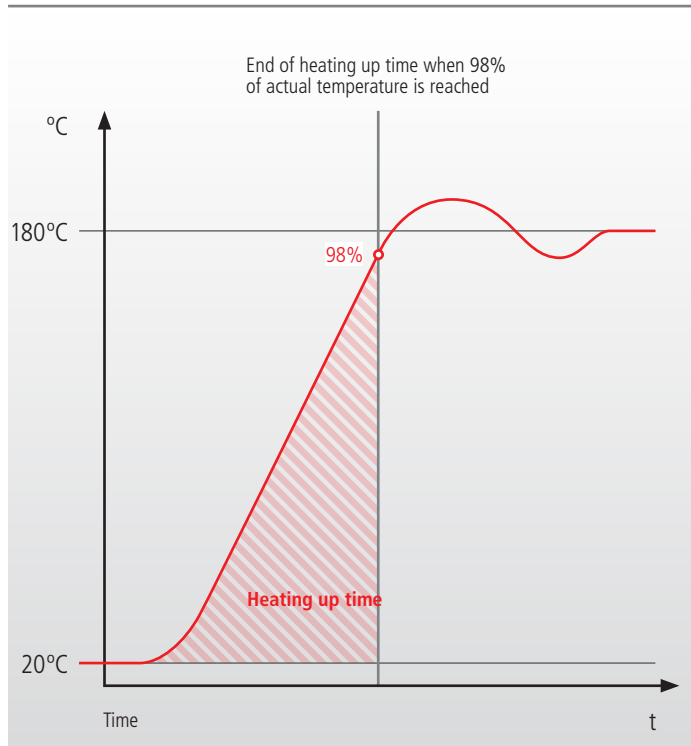
A similar question is posed when comparing the old and the current standard DIN 12880:2007-05 for the testing of ovens and incubators. After publication of the new standard in 2007, Memmert knowingly made the decision to meet the stricter test requirements. You can read about the most important differences on this sheet.

1. Determining the heating up and cooling down times

According to the old standard, the heating up and cooling down times were recorded when 98% of the preset temperature setpoint had been reached. The new standard stipulates that the heating up time is seen to be complete as soon as the actual temperature in the middle of the working chamber permanently remains within the limit deviation specified in the standard.

Previously: Determining the heating up time of an oven according to the old standard DIN 12880-2:1980-04

Now: Determining the heating up time of an oven, for example for 180°C according to DIN 12880:2007-05



Limit deviation ± 1.5 K at 180 °C exemplarily

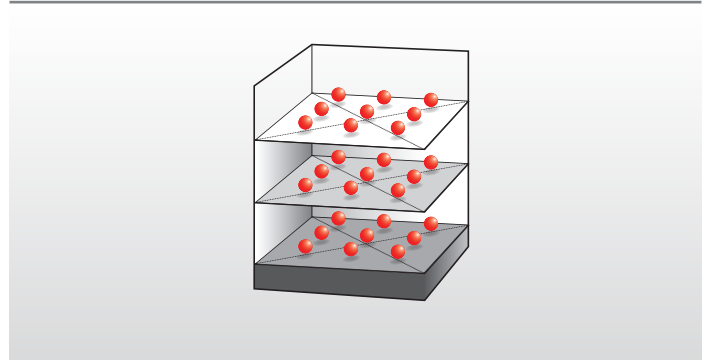
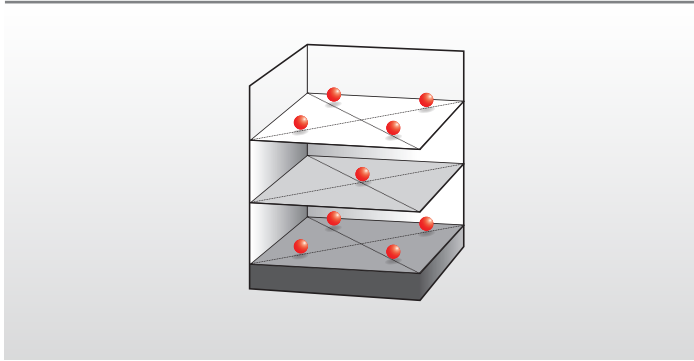
2. Temperature homogeneity and temperature consistency

According to the old standard, deviations in terms of space and time were measured with 9 measurement points inside the working chamber. In the currently valid standard, 9 measurement points are sufficient for appliances with a working chamber of up to 50 litres; for appliances with a larger working chamber, 27 measurement points are stipulated.

The temperature consistency results from the temperature progression of the measurement point which displays the largest time / temperature deviation. The temperature homogeneity, that is the space / temperature deviation, results from the difference between the time / temperature mean values of the two measurement points with the highest and lowest measured temperature value.

Previously: Measurement setup with 9 measurement points for appliances with a working chamber of less than 50 litres acc. to DIN 12880:2007-05 and for all appliances acc. to old standard DIN 12880-2:1980-04

Now: Measurement setup with 27 measurement points for appliances with a working chamber of more than 50 litres acc. to DIN 12880:2007-05

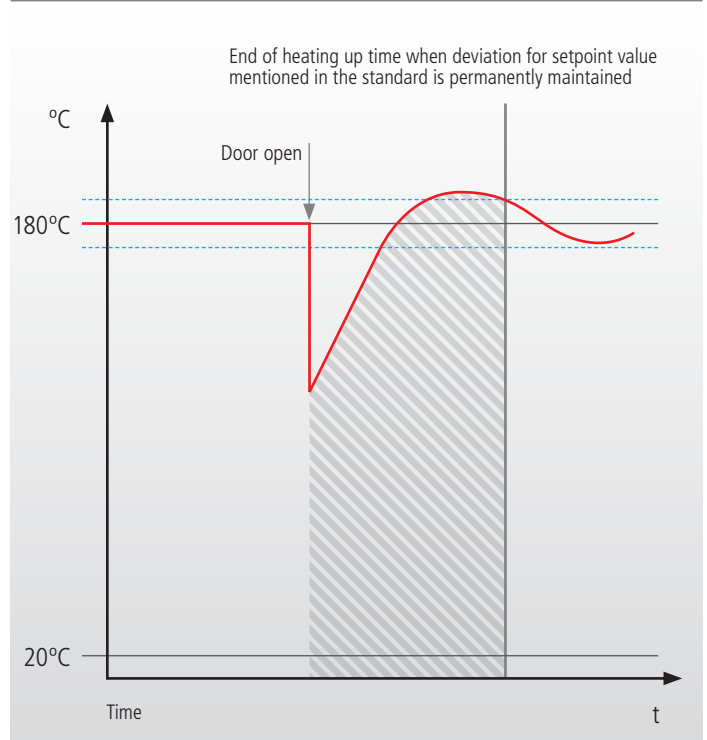
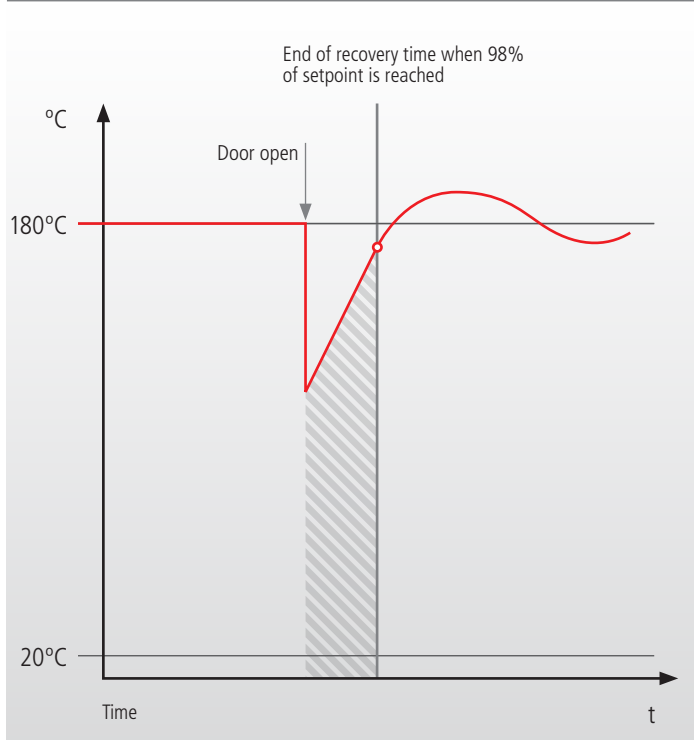


3. Recovery time after door is opened

At the highest test temperature and when equilibrium has been reached, the door of the oven is opened for 30 seconds and then the time is measured until the actual temperature in the middle of the working chamber remains permanently within the limit deviation specified in the standard.

Previously: Determining the recovery time of an oven after door has been opened acc. to old standard DIN 12880-2:1980-04

Now: Determining the recovery time of an oven after door has been opened acc. to DIN 12880:2007-05



Limit deviation ± 1.5 K at 180 °C exemplarily