

FOOD SAFETY NEWSLETTER

Food safety and temperature measuring devices



Using thermometers in food

One of the most important food safety actions a business can take is to use a probe thermometer to check that potentially hazardous foods are cooked, cooled or held at the correct temperature. Having a working and calibrated temperature probe is also a requirement of the Australia New Zealand Food Standards Code, and all food businesses must comply with the Food Standards.

When do I need a thermometer?

If you store, transport, prepare, cook or sell potentially hazardous food, you must have a working probe thermometer available at all times. Potentially hazardous foods include, but are not limited to, raw or minimally cooked egg products, meat, fish, dairy products, gravies, cooked rice and pasta. See the Food Standards for further definitions, www.foodstandards.gov.au The Food Standards specifies temperatures for safe receipt and storage of potentially hazardous food, as well as the requirements for cooling, however a business must understand the temperature requirements for their own individual products.

What sort of thermometer do I need?

The business needs a probe thermometer or temperature probe as this allows the internal (core) temperature of the food to be monitored. Best practice is to use a digital probe thermometer which is accurate to within 1°C and can measure both hot and cold (below 0°C).

Types of thermometers

There are a few different thermometers commonly used by food businesses. The first type is an analogue thermometer with a dial type face (eg. milk thermometer). This type of thermometer is not very accurate, hard to read and easily thrown out of calibration. The second type is a digital probe thermometer. This type of thermometer is more reliable, accurate and practical. This is the recommended type of thermometer to use in a food business. A third type, infrared thermometers, are recommended to use as a guide only, as it only tests surface temperature, not the core temperature of food.

Analogue Dial Thermometer



Digital Probe Thermometer



Infrared Thermometer



How do I use a thermometer and make sure it is working?

- Make sure that the thermometer is clean, dry and has been effectively sanitised with an alcohol wipe or food grade sanitiser (making sure manufacturers contact time is adhered to),
- Place the probe in the food (covering the metal end of the probe as much as practicable) and wait until the temperature reading has stabilised before reading the temperature,
- Measure the food at the thickest area, i.e. slowest heating or cooling point,
- Clean and sanitise the thermometer between measuring different foods,
- If using the thermometer to measure hot and cold foods, wait for the thermometer to return to room temperature,
- Measure food stored in different spots in the refrigerator, as temperatures can differ in areas of the fridge or cold display units,
- Measure the temperature of sealed packaged frozen/chilled foods by placing the probe thermometer between two packages,
- Maintain your thermometer to make sure it is working correctly (e.g. replacing batteries, replace if damaged) and that it is accurate to +/-1°C by calibrating regularly.

What is thermometer calibration and how do I do it?

Thermometer calibration is the act of verifying whether your thermometers are reporting the correct temperature.

There are two methods for thermometer calibration - hot calibration and cold calibration.

The steps for hot calibration are as follows:

Step 1: Boil tap water and pour into a suitable container (such a mug or beaker)

Step 2: Place your thermometer into the container

Step 3: Wait for 2 minutes

Step 4: Check that the temperature is between 99°C and 101°C (210°F to 214°F)

Step 5: If the temperature isn't correct, adjust your thermometer to the correct temperature whilst it's still in the water. If you can't manually adjust your thermometer, arrange for professional re-calibration or a replacement.

The steps for cold calibration are as follows:

Step 1: Mix 50% crushed ice and 50% water in a container (such as a mug or beaker)

Step 2: Wait for 5 minutes so that the heat distributes evenly

Step 3: Place your thermometer into the container

Step 4: Wait a further minute

Step 5: Check that the temperature is -1°C to 1°C (30°F to 34°F)

Step 6: If the temperature isn't correct, adjust your thermometer to the correct temperature whilst it's still in the water. If you can't manually adjust your thermometer, arrange for professional re-calibration or a replacement.

Reference: <https://www.foodsafety.com.au/blog/calibrating-probe-thermometers-in-a-commercial-kitchen>



TRAINING REMINDER

Free online food safety training available via;

'I'm Alert'
mountgambier.imalert.com.au

'Do Food Safely'
dofoodsafely.health.vic.gov.au