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Knowledge Hub

Professional Resources for Care, Catering & Hospitality

FREE PROFESSIONAL RESOURCE

Food Probe Thermometer Use and Calibration in Care Catering

A Practical Guide for Care Staff

Knowledge Hub Resource 083

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Introduction

This free professional guide explains how to select, use, clean, check and care for food probe thermometers in care catering.

It supports accurate temperature monitoring, safer food preparation and reliable food-safety records for meals served to residents and other vulnerable people.

FREE PROFESSIONAL RESOURCE

Catering, Food Safety & Kitchen Compliance Resources

Suitable for care home cooks, chefs, kitchen assistants, catering managers and staff responsible for checking or recording food temperatures.

IMPORTANT

This guide supports awareness and good practice. Staff must follow their organisation's food-safety management system, equipment instructions, agreed temperature limits and reporting procedures.

WHY ACCURATE TEMPERATURE CHECKS MATTER

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People living in care settings may be more vulnerable to serious illness from unsafe food. A reliable thermometer helps staff confirm that temperature controls are working and provides evidence that food has been handled safely.

A probe reading is useful only when the thermometer is suitable, clean, correctly positioned, allowed to stabilise and known to be accurate.

A damaged, contaminated or inaccurate probe can give false reassurance and may transfer bacteria or allergens between foods.

CHOOSING SUITABLE EQUIPMENT

• Use a food-grade digital probe suitable for the task and temperature range.

• Use a thin-tip probe for smaller or delicate foods where practical.

• Do not use a mercury-in-glass thermometer because breakage would create a contamination hazard.

• Use an infrared thermometer only for surface checks. Use a clean probe when an accurate core temperature is required.

BEFORE EVERY USE

Condition

Check the probe, cable, display and casing for damage.

Cleanliness

Clean and disinfect the probe using the approved method before it touches food.

Power

Confirm that the display and battery are working normally.

Suitability

Check that the thermometer is appropriate for the food and temperature being measured.

Accuracy status

Confirm that required accuracy checks are up to date.

Never rely on appearance alone when your food-safety procedure requires a temperature reading.

HOW TO TAKE A RELIABLE READING

Follow the food-safety management system and the thermometer manufacturer's instructions.

Use the same safe method consistently so readings can be compared and acted upon.

CORE TEMPERATURE CHECKS

• Clean and disinfect the probe before use, then allow any approved product to work for its required contact time.

• Insert the tip into the centre or thickest part of the food, avoiding bone, trays and cooking surfaces.

• For large or irregular items, check more than one location because the coldest point may vary.

• Wait until the display stabilises before recording the reading.

• Record the actual temperature, date or time, food or batch, and any corrective action required by local procedure.

• Clean and disinfect the probe immediately after use and before testing another food.

PREVENTING CROSS-CONTAMINATION AND ALLERGEN CROSS-CONTACT

A probe can carry microorganisms or allergen residues from one food to another.

Use the organisation's approved cleaning and disinfection process between checks.

Where separate or colour-coded probes are provided for allergen-controlled foods, keep them identified, protected and used only as instructed.

RESPONDING TO AN UNEXPECTED RESULT

• Repeat the check correctly in another appropriate location.

• Do not serve or release food that has failed the organisation's safe limit.

• Keep the food controlled while following the agreed corrective action, such as further cooking, reheating or disposal.

• Report equipment faults, repeated failures or uncertainty promptly to the responsible person.

The Food Standards Agency gives 70°C for two minutes as a standard cooking combination, with equivalent time and temperature combinations also available.

Always apply the limits and method specified in your organisation's food-safety system.

CHECKING ACCURACY AND LOOKING AFTER THE PROBE

A thermometer must be sufficiently accurate and reliable for its intended use.

Check it at the frequency stated by the manufacturer and your food-safety system.

If no instructions are available, the Food Standards Agency's Safer Food Better Business guidance gives once a month as an example of a regular check.

SIMPLE ACCURACY CHECKS FOR A DIGITAL PROBE

ICED-WATER CHECK

Expected reading: −1°C to +1°C

Use a properly prepared ice-and-water mixture.

Keep the thermometer's sensing area in the mixture without allowing it to touch the sides or bottom of the container.

Wait for the reading to stabilise.

BOILING-WATER CHECK

Expected reading: 99°C to 101°C

Use great care to prevent burns.

Keep the thermometer's sensing area in the boiling water without allowing it to touch the sides or bottom of the container.

Wait for the reading to stabilise.

IF A READING IS OUTSIDE THE EXPECTED RANGE

• Remove the thermometer from use or clearly identify it as unavailable.

• Do not alter or calibrate it unless this is permitted by the manufacturer and workplace procedure.

• Arrange approved calibration, repair or replacement.

• Consider whether recent temperature records or food-safety decisions may have been affected and report this to the responsible person.

• Record the failed check and the action taken.

STORAGE AND CARE

• Store the thermometer safely in its case, away from liquids and extreme heat or cold.

• Do not leave a handheld digital probe in an oven, refrigerator, freezer or hot food unless it has been designed for that purpose.

• Avoid dropping, bending or knocking the probe.

• Replace a low battery promptly.

Boiling temperature varies with altitude and local conditions. Follow the thermometer manufacturer's instructions and your organisation's agreed verification method.

PRACTICAL CHECKLIST AND FURTHER INFORMATION

FOOD PROBE THERMOMETER CHECKLIST

☐ The thermometer is suitable, undamaged and working.

☐ The accuracy check is current and recorded.

☐ The probe is cleaned and disinfected before use.

☐ The tip is placed in the centre or thickest part of the food.

☐ The display is allowed to stabilise.

☐ The reading and required details are recorded accurately.

☐ Unexpected results are checked and corrective action is taken.

☐ The probe is cleaned, disinfected and stored safely after use.

☐ Faults or inaccurate readings are reported promptly.

KEY MESSAGE

A thermometer supports food safety only when staff use it correctly and can trust its accuracy.

Clean it, position it properly, wait for a stable reading, record the result and act immediately when a limit is not met.

OFFICIAL FURTHER INFORMATION

Food Standards Agency – Cooking Your Food

https://www.food.gov.uk/safety-hygiene/cooking-your-food

Food Standards Agency – Safer Food Better Business

https://www.food.gov.uk/business-guidance/safer-food-better-business-sfbb

Food Standards Agency – MyHACCP Guidance on Monitoring and Calibration

https://myhaccp.food.gov.uk/help/guidance/general-requirements-be-considered-each-prerequisite

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