



Temperature control

Why take temperature readings?

There are a number of reasons why taking temperature readings are important:

1. They show food is being stored at temperatures which limit the growth of bacteria capable of causing food spoilage and/or food poisoning.
2. They provide a check that refrigerated equipment is working correctly.
3. Certain foods must be kept at or below 8°C. It is recommended that you operate refrigerated equipment at between 2°C and 5°C. In order for you to know whether you are complying with this requirement checks must be made. There are no defined temperatures for freezers although we would recommend they operate at -18°C or below.
4. Proprietors of food businesses must identify potential food hazards, decide which of these hazards need to be controlled to ensure food safety and then put into place effective control and monitoring procedures to prevent the hazards causing harm to consumers. Proper temperature control is the single most important measure in preventing food poisoning and therefore must be strictly controlled.

Why record temperature readings

1. It is an offence to sell food which is unfit, substandard or which may cause harm to the person consuming it. The principal defence available to a person accused of selling such food is one of due diligence. This requires them to prove they 'took all reasonable precautions and exercised all due diligence to avoid committing the offence'. Written records are considered essential when trying to establish a defence in cases where temperature control is an issue.
2. It clearly demonstrates that measures are in place to control a major food safety hazard (see 4 above) even though written records are not necessarily a legal requirement.

What type of thermometer should I use?

You must be able to rely on the readings it gives and therefore accuracy is most important. Digital thermometers are recommended. Not only are they very accurate but different probes can be used which enable hot and cold food as well as air temperatures to be tested.

Alternatively, relatively cheap fridge/freezer thermometers can be used but it is important their accuracy is established.

How and when?

It is recommended that you make regular checks of your equipment for storing cold foods to ensure that it is working correctly and maintaining food at 8°C or below. You can use the thermometer built into the equipment but this will only measure the air temperature at a single point in the refrigerator and not the food.

It is advisable to use alternative equipment such as an independent thermometer or probe thermometer. Probe thermometers can be used to check both hot and cold temperatures and will measure both air and food temperatures.

Use of probe thermometers

It is recommended that high risk foods requiring cooking through to the centre should be probed on an occasional basis where standard recipes and quantities are used. For new or changed recipes it is suggested that initially one item from each batch is probed. In all cases however you must take care that probe thermometers do not contaminate or taint the food being probed. Make sure probes are kept clean and disinfected before use with ready to eat food, otherwise probed food must be discarded. Where antibacterial wipes are used, these must be suitable for use with food.



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Calibration on probe thermometers

Please note that probe thermometers should be checked regularly for accuracy. As a helpful reference in doing your own checks; pure water and ice mixture should measure between 1°C to +1°C, and pure boiling water should measure between 99°C and 101°C. If your thermometer appears not to be working correctly it should be replaced or sent for service. For further advice refer to the manufacturers instructions.

How often do I check temperatures?

It is recommended that the following temperature records are maintained:

- (a) Chilled and frozen foods on receipt.
- (b) Refrigerator temperatures - three times per day (target temperature 0 to 5°C).
- (c) Freezer temperatures - once per day (target temperatures -18°C or below).
- (d) Hot food at random (target temperature on completion of cooking to be above 75°C or after hot holding to be above 63°C).

The temperature record sheet on pages 41-42 and the delivery record check on page 38 will help you to record your monitoring checks.

Temperature guide

The following temperature rules must be followed to ensure safe food production:

- (a) Perishable food to be stored in the refrigerator (0 to 5°C) or freezer (below -18°C).
- (b) When cooking food it must achieve a core temperature of 75°C.
- (c) If hot food is not to be served immediately it should either be:
 - i) held hot, i.e. above 63°C (if held for longer than two hours) or
 - ii) cooled rapidly within 1½ hours and refrigerated or frozen
- (d) Reheating of foods should be thorough, i.e. a core temperature of 75°C should be achieved.
- (e) Perishable food must whenever possible be held under refrigeration. As such, only small quantities of food should be held at room temperature during the service period with back up stock held under refrigeration. Any left at the end of service which has been held at room temperature should be discarded as its safety cannot be assured.



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Cold storage temperature records

Date	Time	Fridge storage/display temperature (food 8°C or less) Air temperature 0°C to 5°C					
		1	2	3	4	5	6
Monday	a.m.						
	p.m.						
Tuesday	a.m.						
	p.m.						
Wednesday	a.m.						
	p.m.						
Thursday	a.m.						
	p.m.						
Friday	a.m.						
	p.m.						
Saturday	a.m.						
	p.m.						
Sunday	a.m.						
	p.m.						

Supervisors check (signature) _____



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Hot food temperature records

Date	Time	Core temp 75°C after cooking or re-heating		Hot hold 63°C or above	
		Description of food	Temp °C	Description of food	Temp °C
Monday	a.m.				
	p.m.				
Tuesday	a.m.				
	p.m.				
Wednesday	a.m.				
	p.m.				
Thursday	a.m.				
	p.m.				
Friday	a.m.				
	p.m.				
Saturday	a.m.				
	p.m.				
Sunday	a.m.				
	p.m.				

Supervisors check (signature) _____