





## Temperature limit values – food production, food service

The most important measurement parameter in food production and service is the temperature. It is measured not only in the foods (core temperature), but also in the oven (ambient temperature):

### Commercial temperature limit values in the EU:

Important temperature limit values		
Hot food for serving soon (meat/fish)	≥ 80 °C minimum 3 mins. ≥ 72 °C minimum 10 mins.	≥ 65 °C
Cold dishes, delicatessen, crudités, cold cuts, non-preserved salads, dressings (milk, egg), desserts	≤ 7 °C	≤ 7 °C
Ice cream	Warm production (= pasteurization) 85 °C short-term heating 65 °C long-term heating Cold production ≤ -10 °C	≤ -18 °C (in packaging) ≤ -5 °C (service of bulk ice cream)
Retention samples	Retention samples Keep for at least 1 week at ≤ -18 °C	
Disinfection equipment	Water ≥ +82 °C	



Penetration measurement



Penetration measurement



Infrared measurement



## Temperature and hygiene in food preparation

Temperature and hygiene play an essential role in the processing and storage of foods. A study carried out by a Belgian restaurant chain showed that incorrect refrigeration was the cause in 56 percent of all cases of spoiled foods.

### Hazards when processing food

1. Food is insufficiently refrigerated or heated.
2. Cooked food is stored for too long without refrigeration.
3. Refrigeration systems are overloaded.  
Consequence: temperatures are too high.
4. Insufficient attention is paid to personal hygiene of employees.
5. "Clean" and "unclean" processes are not separated strictly enough.
6. Raw and already heated foods are stored together.
7. Liquid from defrosting comes into contact with other food.



Temperature penetration  
measurement



Temperature measurement  
in dough



Continuous temperature  
checks in production