

HACCP = Hazard Analysis of Critical Control Points

FOOD HYGIENE

The new hygiene package

in force since 1.1.2006

- EC-regulation 852/2004** on the hygiene of foodstuffs
- EC-regulation 853/2004** with specific foodstuff regulations for food products of animal origin
- EC-regulation 854/2004** with special regulations for the official monitoring of products of animal origin intended for human consumption

European law applies since 1.1.2006. The so-called hygiene package replaces corresponding national rules such as the German food hygiene regulations (Lebensmittelhygieneverordnung (LMHV). What is new in this regulation?

- Food safety is monitored at the EU-level. Corresponding national regulations are no longer in force.
- The documentation of food hygiene is mandatory. It should, however, be appropriate to the nature and size of the business.
- Raw materials must be stored separately from processed products.
- The temperature monitoring of food products requiring refrigeration is set down as a binding requirement.
- Every business that handles food products must instate a hygiene management system in accordance with HACCP.

HACCP = Hazard Analysis of Critical Control Points

HACCP basic principles:

- carry out hazard assessment
- identify critical control points (CCP)
- specify threshold values for the CCPs
- specify monitoring procedures of the CCPs
- specify response measures in case threshold values are exceeded
- regular verification of the HACCP-system
- documentation of processes and records

The HACCP-concept should protect the consumer against unacceptable residual health risks.

Depending on the nature and size of the business, such a hygiene management system can be more or less comprehensive.

The following problem areas are to be examined critically:

- building conditions
- water supply
- cleaning and disinfection
- serving counter
- circumstances of delivery
- personal hygiene
- preventing customer contact
- sanitary facilities
- handling of waste
- cutting and handling devices
- pest control
- clothing, head coverings
- health of employees

In the context of the hazard assessment, the following temperatures are to be taken into account:

- delivery temperatures
- ambient temperatures
- transport temperatures
- serving temperatures
- storage temperatures
- portioning temperatures
- heating and warm storage temperatures
- regeneration temperatures

Other monitoring procedures include:

- measuring pressure and humidity
- measuring salt content
- determination of pH-value or the shares of preservatives contained in food products
- determination of polar compounds in frying oil



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Changes in DIN 10505 «Temperatures for Food Products»

INTRODUCTION

During the production, handling, transport and during the introduction of food products into the market, temperature control and the adherence to specific temperatures play a decisive role in controlling the undesirable propagation of microorganisms.

In the past, various regulations with corresponding temperature requirements for food products have been issued; however, these were not coordinated. The DIN 10508 was first published in October 2002 and now revised with respect to the new food hygiene law as well as practical experience.

The temperature specifications of this standard aimed at facilitating uniform procedure. (Regulations according to the ATP agreement are considered).

Changes with respect to DIN 10508:2002-10:

- 1 The temperature specifications have been revised and updated according to the new food hygiene law. (see tables)
- 2) The standard was updated to the latest status.

APPLICATION AREA

This standard specifies temperatures that apply for deep-frozen, frozen, refrigerated and for food products that are kept warm as well as for ice cream.

These temperatures are partially established in statutory provisions, or they are recommended by the NAL study group on food hygiene. These recommendations are not legally binding. They can be consulted for one's own monitoring as well as for official monitoring.

Requirements

- Easily perishable food products of animal or plant origin should, as far as not specified by other regulations, be stored at no higher than +7°C (44°F).
- For packaged food products requiring refrigeration, a temperature of max. +7°C (44°F) should be assumed during transport and storage.
- When letting hot food products cool, the cooling down in the range between +65°C (149°F) and +10°C (50°F) should take about 3 h to avoid germ multiplication.

NOTE

Refrigeration alone can only slow down, but not prevent the multiplication of spoiling agents or disease agents. The multiplication of microorganisms also depends on the duration of storage as well as additional internal and external factors.

Table 1 maximum temperatures for deep-frozen and frozen food products

Food industry products	Temperature °C/°F
Deep-frozen food products (except for ice cream)	-18°C (0°F)
Poultry, deep-frozen	-18°C (0°F)
Frozen food products	-12°C (10°F)
Meat, frozen	-12°C (10°F)
Poultry, frozen	-12°C (10°F)
Egg products, deep-frozen	-18°C (0°F)
Egg products, frozen	-12°C (10°F)
Egg products, refrigerated	+4°C (39°F)

Storage time at +4° (39°F) up to the time of processing may not exceed 48 hours

Table 2: maximum temperatures for ice cream

Food industry products	Temperature °C/°F
Ice cream in finished packs	-18°C (0°F)
Ice cream for portioning	-10°C (14°F)



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Table: Maximum temperatures for food products requiring refrigeration

Food industry products	Temperature °C/°F
Butter	+10°C (50°F)
Cream cheese (cream cheese products)	+10°C (50°F)
Soft cheese and sliced cheese except for hard cheese	+10°C (50°F)
other milk products, requiring refrigeration	+10°C (50°F)
Milk in the production operation	
- in case of daily transfer	+6°C (42°F)
- in case of non-daily transfer	+6°C (42°F)
Milk ready for consumption, pasteurized	+8°C (46°F)
Attested milk	+8°C (46°F)
Storage after filling	+8°C (46°F)
Meat, fresh	+8°C (46°F)
Butchery side products, fresh	+3°C (37°F)
Poultry, fresh	+4°C (39°F)
Ground meat, processed meat, processed poultry	
From operations not at the location of distribution	+4°C (39°F) for ground meat** +4°C (39°F) for processed meat +8°C (46°F) for deep-frozen goods
From operations at the location of distribution, loose or self-packed	
- for immediate distribution	+7°C (44°F) ambient temperature
- distribution on the day of production or given special documentation filling within 24h	+7°C (44°F) +4°C (39°F) ambient temperature
Meat products, easily perishable	+7°C (44°F)
Meat-based instant meals	+10°C (50°F)
Fishery products, fresh, as well as crab and shellfish products, boiled	in melting ice or +2
Fishery products, processed (marinated, soured, smoked)	+7°C (44°F)
Chicken eggs (from 18th day after laying date)	+5°C to +8°C (41°F to 46°F)
Food products containing raw eggs (such as fresh egg mayonnaise)	+7°C (44°F)
Egg products previously treated, refrigerated	+4°C (39°F)
Other easily perishable food products such as:	
- baked goods with fillings that are not heated through	+7°C (44°F)
- fresh, chopped-up salads	+7°C (44°F)
- delicatessen salads	+7°C (44°F)

Special characteristics of ground meat

** In order to maintain the traditional marketing forms for ground meat, it can be refrigerated immediately after processing to a core temperature of no more than +4°C (39°F). This temperature is also to be adhered to during storage and transport. This ground meat may only be brought into circulation on the day of the production.

The ambient and core temperature of +4° (39°F) also applies for pre-packaged ground meat with a consumption date after the packaging is opened.

Note

Although some easily perishable food products are explicitly listed by name in the above table, many other products, for example from the area of processed meat and fishery products, also fall into this category, but these could not be listed individually because of their diversity. These products are to be classified in the group of other easily perishable food products.

Table: Minimum temperature for food products to be kept warm *

Food industry products	Temperature °C/°F
Food products ready for consumption that need to be kept warm	+65°C (149°F)

Easily perishable food products that are ready for consumption and that need to be kept warm should be kept at a product temperature of at least +65°C (149°F). The duration of the warming should be limited to about 3 h.

*Finished cooked dishes for immediate consumption are often found in cafeterias, canteens and primarily in fast-food gastronomy.