

Instructions for Use

Synthetic Heat-Shrinkable Casing Pentaflex CHEREVA(Light) Easy-peel, ring-type casing for sausage packaging

Purpose

The Pentaflex CHEREVA (Light) casing is manufactured in accordance with TU U 25.2-20620489-007-2003.

It is an easy-peel, ring-type synthetic casing intended for the packaging of sausages.

Product Range

Colors: transparent, smoked

Diameters: 34–45 mm

Advantages

Compared with viscose-reinforced, natural, and protein casings, **Pentaflex CHEREVA** offers:

biological inertness;

high barrier properties;

high mechanical strength;

elasticity;

low permeability to oxygen and water vapor;

operating temperature range of finished products from -30°C to $+115^{\circ}\text{C}$;

no weight loss during thermal processing;

extended shelf life of sausages (up to 60 days when stored at $+2^{\circ}\text{C}$ to $+6^{\circ}\text{C}$).

The casing is supplied in shirred form, with or without printing.

Storage at the Manufacturing Facility

The casing must be stored in the manufacturer's original packaging in clean, dry warehouse facilities, free from foreign odors and aggressive substances, protected from direct sunlight, at a distance of at least 1 m from heating devices, at an ambient temperature not exceeding $+25^{\circ}\text{C}$ and relative humidity not exceeding 80%.

The casing must remain in the manufacturer's packaging until use.

Guaranteed shelf life: 36 months.

Dropping or subjecting casing boxes to impacts is strictly prohibited.

The casing is frost-resistant and withstands temperatures down to -30°C .

Mechanical friction must be avoided.

If the casing has been stored at temperatures below 0°C , it must be kept at room temperature for at least 24 hours before opening the packaging.

Preparation of the Casing for Use

Before use, **Pentaflex CHEREVA** casing must be soaked in water at a temperature of $+18^{\circ}\text{C}$ to $+25^{\circ}\text{C}$ for at least 40 minutes.

During the winter period, water at $+25^{\circ}\text{C}$ may be used to accelerate the soaking process.

Soaking the casing in hot water is strictly prohibited.

Casing consumption should be calculated based on the production volume.

In case of partial use, the remaining casing should be kept in a container with cold water and used within 24 hours.

Technological Recommendations for Sausage Production Using Polyamide Casings

Due to the gas- and moisture-impermeable properties of **Pentaflex CHEREVA** (Light) casing, moisture loss during thermal processing is not observed.

To prevent broth-fat pockets and casing rupture during thermal processing, it is necessary to strictly comply with the current technological instructions for sausage production and the use of functional additives.

Stuffing and Clipping

Forming sausages in the casing is a critical process during which the casing most frequently contacts equipment components.

Ensure that all equipment parts are in good working condition, free of damage and burrs, to prevent casing damage.

Pentaflex CHEREVA casing operates smoothly on twisting machines.

When working with shirred casing, ensure that the casing diameter corresponds to the stuffing horn diameter.

The shirred stick must fit freely onto the horn.

Mismatch of these parameters may cause difficulties in mounting the shirred stick, requiring manual unshirring, which leads to reduced productivity.

Stuffing is recommended with 5–10% overfilling relative to the recommended stuffing diameter (RSD).

The overfilling percentage is determined experimentally depending on production conditions, equipment type, and desired sausage shape.

The selected overfilling percentage must remain constant throughout the entire stuffing process.

Thermal Processing

Thermal processing of sausages must be carried out in accordance with the current technological instructions according to the following scheme:

Preheating – cooking – showering – cooling

Due to the gas-impermeable nature of the casing, roasting is excluded.

To ensure proper color formation, stepwise cooking must be applied with gradual temperature increase, starting at 50–55°C.

The final stage of thermal processing is cooking until product readiness, reaching 72°C inside the sausage and maintaining this temperature for 10–15 minutes.

The number of heating stages depends on the sausage diameter: the larger the diameter, the more stages are required.

The duration of heating stages is determined by the manufacturer based on technological requirements and equipment capabilities.

Cooling sausages with cold air after cooking is prohibited. Rapid air cooling dries the casing and may cause surface wrinkling.

Drafts must be eliminated until the sausages are completely cooled.

Sausages may also be cooked in boiling kettles.

Cooking in Kettles

When cooking sausages in kettles, observe the following requirements:

load the product into water at +55°C to +60°C;

immersing the product in water at +80°C is strictly prohibited, as it may cause premature casing shrinkage and deformation of sausages;

sausages must be fully submerged in water;

increase the temperature gradually, in stages;

when loading subsequent batches, ensure that the water temperature does not exceed +60°C;

product readiness is determined by an internal temperature of +72°C.

Cooling

After cooking, sausages are cooled in two stages:

Stage 1: cooling under a water shower until the internal temperature reaches +25°C to +30°C.

Stage 2: after shower cooling, sausages are air-dried at ambient temperature, then transferred to a cooling chamber at +4°C to +6°C.

Stepwise cooling ensures uniform and simultaneous shrinkage of the casing and filling, preventing surface wrinkling.

Packaging and Storage of Sausages

After cooling, sausages are transferred to storage facilities for further distribution.

Storage temperature must comply with the technological instructions for the specific product type.

Sausages with a clean and dry surface are packed into sanitized containers in accordance with the maximum permissible net weight and sent for sale.

Significant temperature fluctuations during storage are not allowed, as they may cause condensation on the sausage surface.

In retail outlets, sausages must be removed from transport packaging and placed in refrigerated display cases.