



# AMISTYLE MB, HB, HP

**Process Operating Manual** 







#### 1. APPLICATION

This Process Operating Manual describes the manufacturing process for food products with the use of the AMISTYLE MB, MB-T, MB-E, HB, and HP multilayer heat-sealable films on various types of continuous-process automatic equipment:

- vertical forming and clipping systems;
- horizontal heat-sealing automatic machines provided with clippers.

The **AMISTYLE MB, MB-T,** and **MB-E** films are made of polyamide, polyolefin and an adhesive (modified polyethylene).

The **AMISTYLE HB** film is made of polyamide, polyolefin, an adhesive (modified polyethylene) and EVOH (copolymer of ethylene and vinyl alcohol).

The **AMISTYLE HP** film is based on polyamide.

The materials used to produce the **AMISTYLE MB, MB-T, MB-E, HB,** and **HP** films are permitted for use in the food industry by the Ministry of Public Health of the Russian Federation. The quality of the raw materials is confirmed by Russian and international quality certificates.

The **AMISTYLE MB, MB-T, MB-E, HB,** and **HP** films are made according to their original recipes, and are suitable for production, transportation, storage and sale of the following paste-like food:

- -dairy products (cottage cheese, cottage cheese-based products, sour cream, yogurt, smoked and unsmoked sausage cheeses, condensed milk, ice cream, butter, spreads);
  - -meat products (minced meat, cooked and liver sausages, spreads);
  - -oil and fat products (mayonnaise, margarine, fats);
  - -preserves (sauces, tomato paste, jams, etc.).

The shelf life of the food products packaged in the **AMISTYLE MB, MB-T, MB-E, HB,** and **HP** films shall be set by the manufacturers and approved following the procedure stipulated by the laws.

### 2. CONSUMER PROPERTIES AND ADVANTAGES

The **AMISTYLE MB, MB-T,** and **MB-E** films are intended for products not subjected to thermal processing.

The **AMISTYLE MB-T** film is suitable for products subjected to thermal processing within the temperature range from 70 to 100 °C.



The **AMISTYLE MB-E** film features enhanced strength, including puncture resistance.

The **AMISTYLE HB** film is intended for products sensitive to oxygen, or for products with an extensive shelf life.

The **AMISTYLE HP** is a smoke-permeable film for products subjected to smoking (e.g., smoked sausage cheeses).

Thanks to the carefully selected combination of polymers and the use of biaxial orientation, the **AMISTYLE MB, MB-T, MB-E, HB,** and **HP** films feature:

- -mechanical strength, which allows forming of chubs with the use of high-capacity automatic equipment to ensure consistency of the shape and a fixed weight of the chubs at high forming rates;
- -**optimal heat shrinkage**, which provides for the absence of 'wrinkles' on the finished products, and an excellent selling appearance of the finished products throughout the shelf life;
- -retardation of the oxidation processes that cause rancidification of the fats contained in the food products;
  - -excellent sealability, which ensures strong and proper heat sealing.

A low specific weight of the films (kg/m2) and the absence of chlorine-containing substances in the composition make the films safer for the environment.

#### 3. HOW TO USE THE CASING

## 3.1. Preparation of the film

3.1.1. If the casing was stored at a temperature below 0 °C, then prior to use hold it in its original packing at room temperature for not less than 24 hours.

# 3.2. Food product packaging

The composition and sequence of preparation of the food products made with the use of the **AMISTYLE MB, MB-T, MB-E, HB,** and **HP** films shall be in accordance with the manufacturing technology and the applicable regulatory documentation for each type of product.

Contact heat sealing or hot air sealing can be used to produce tubular film.



Set the operating temperature of the sealing elements with regard to the melting temperature of the heat-sealable layer material, the material thickness, the equipment production rate (the higher the rate, the higher should be the temperature of the sealing elements), the area of contact of the sealing element with the packaging material, and the pressure exerted by the sealing element on the film.

In case of polymer films, the tool temperature must be 50 - 100  $^{\circ}$ C higher than the polymer's melting temperature, but not higher than its temperature of intensive degradation (see Table 1 below).

Film type Material Approximate range of sealing layers of sealing temperatures, °C

MB, MB-T, MB-E, HB

PE

130 - 200

HP

PA

180 - 250

Table 1 – Approximate range of sealing temperatures

Make trial sealing attempts to find the best process mode for the equipment used on a case by case basis, then keep the sealing settings unchanged.

The film sealing area must be free of any print, varnish or other surface treatment.

The selected clip must ensure a secure closure of the chub without damaging the film. Follow the recommendations of the clipping equipment manufacturers to provide for secure clipping.

The forming tube diameter determines the finished product diameter. The 'tube' formed from the film should not be overfilled to exceed the nominal caliber

# 3.3. Thermal processing of products

Thermal processing of food products packaged in the **AMISTYLE MB- T**, and **HP** films shall be carried out by in accordance with the applicable regulatory technical documentation for such products, with regard to the manufacturing technology, the equipment capacity, the product diameter, and the properties of the selected films.



When packaging products that will significantly expand during thermal processing, such thermal processing should be performed in counterpressure autoclaves.

## 3.4. Transportation and storage of products

Transportation and storage of products packaged in the **AMISTYLE MB, MB-T, MB-E, HB,** and **HP** fillms shall be carried out in accordance with the regulatory documentation for such products (GOST, TU).

## **4. APPENDICES**

There are no appendices to the present document.







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