

Films AVITYLE

AMISTYLE BP-T/CP-T

Process Operating Manual





1. APPLICATION

This Process Operating Manual describes the FormShrink packaging of food products (thermoforming + heat-shrinking) with the use of the **AMISTYLE BP-T** and **AMISTYLE CP-T** films.

AMISTYLE BP-T/CP-T are multilayer heat-shrink vapor- and gas-tight heat-sealable films made of polyamide, polyolefin, polyethylene terephthalate, EVOH and adhesive (modified polyethylene) permitted by the Russian Ministry of Health for use in the food industry. The quality of the raw materials used for production of the films is confirmed by Russian and international quality certificates.

The **AMISTYLE BP-T/CP-T** films are manufactured according to their original formula and are intended for secondary packaging of various food products (meat-based food, chilled meat, chilled poultry, sausages and specialties, chilled fish, cheeses and cheese-based products) by vacuum thermoforming with heat-shrinking in order to extend the product shelf life.

The **AMISTYLE BP-T/CP-T** films can be used on various types of thermoformers, including those combined with heat-shrinking stations.

The shelf life of the food products packaged in the **AMISTYLE BP-T/CP-T** films shall be set by the manufacturers and approved following the procedure stipulated by the laws.

See TU 22.21.30-052-27147091-2012 and Product Specifications for information on the technical characteristics, assortment, colors, forms of supply, processing options, terms and shelf life of the **AMISTYLE BP-T/CP-T** films.

2. CONSUMER PROPERTIES AND ADVANTAGES

The combination of different polymer materials in the structure, and the biaxial orientation of the **AMISTYLE BP-T/CP-T** films provide for:

- -excellent mutual sealability of the **AMISTYLE BP-T** and **AMISTYLE CP-T** films within a wide range of temperatures;
- -optimal heat shrinkage, which allows the creation of an attractive package;
- -high strength and puncture resistance, which preserves the integrity of the package at the stages of transportation and storage;
- -attractive appearance of the packaging material (transparency and gloss), which makes the film virtually invisible on the product;
 - -high barrier properties in respect of oxygen and water vapor.



In short, the **AMISTYLE BP-T/CP-T** films ensure protection of the products, prolong their shelf life, and make it possible to use high-rate automatic equipment for packaging of food products.

Absence of chlorine-containing substances makes the **AMISTYLE BP-T/CP-T** films even more environment-friendly, since the disposal of chlorine-free packaging is less harmful for the environment.

AMISTYLE CP-T serves as the lidding film used to seal the tray containing the food product.

AMISTYLE BP-T is the thermoformable bottom film used to form the tray holding the food product. It may be used as the lidding film, too.

3. HOW TO USE THE FILM

3.1. Preparation of the film

3.1.1. If the film was stored at a subzero temperature, keep it at room temperature before processing for at least 24 hours without opening the manufacturer's packing.

3.2. Food product packaging

Packaging of food products in the **AMISTYLE BP-T/CP-T** films shall be made in production rooms meeting the requirements of the applicable food safety regulations and standards.

To ensure stability of the packaging process, observe the manufacturer-recommended operating modes for the packaging equipment.

Loading of the film in the automatic equipment must be made in accordance with the instructions of the equipment manufacturer and the loading procedure.

The **AMISTYLE BP-T/CP-T** films have a heat-sealable layer of polyethylene (PE) on the inner side of the film web (see. Fig. 1 below).

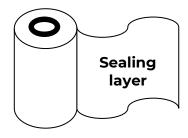


Fig. 1 - AMISTYLE film roll



Take care to maintain the film well-tensioned during the operation.

The equipment settings (forming and sealing temperature, packages per minute rate, etc.) shall be selected on a case-by-case basis.

Packaging of food products with the use of the **AMISTYLE BP-T/CP-T** films includes the following stages:

- forming of a tray from the bottom film roll and filling of the formed tray with food;
 - sealing and cutting of the product into separate packages;
 - heat-shrinking of the finished packages.

3.3. Forming and filling of trays

Trays are made automatically by heating of the unrolling AMISTYLE BP-T bottom film and forming of trays by using of vacuum and/or compressed air flow (depending on the thermoformer design).

The maximum depth of a tray formed from the AMISTYLE BP-T film depends on the number of trays formed per cycle of the equipment; the maximum tray depth may be as great as 10-12cm for the 1x1 and 1x2 formats.

Recommended thermoforming parameters for the AMISTYLE BP-T film:

Forming temperature: 85 - 100 °C

Film heating time - 1 - 4 s

Film drawing time 0,5 - 2,5 s

Drawing pressure 1 - 3 bar.

The formed trays are fed by a belt conveyor to the product dosage zone, where the food is placed in the tray automatically or manually. During the dosage take care to match the product dose with the tray size and shape.

3.4. Sealing and cutting of the product into separate packages

After filling of the trays with food, the thermoformer uses the roll of **AMISTYLE CP-T** lidding film to seal the trays with simultaneous evacuation of the air from the packages. Trays are closed by heat sealing.

To avoid premature heat shrinkage of the **AMISTYLE BP-T/CP-T** films, use a contour sealing plate.

The sealing temperature for the **AMISTYLE BP-T/CP-T** films varies depending on the equipment operation rate, and lies within the range of 130 – 150 °C.

Take care to prevent the product getting into the film sealing zone, because this may lead to a loss of vacuum.



The depth of vacuum should be preset depending on the product moisture content. The depth of vacuum should be reduced for packaging of high-moisture products.

The seals must be even and continuous, bearing a clear imprint of the sealing bar, without any signs of burn-through.

If the sealing quality is unsatisfactory, check the temperature settings.

The sealed packages are conveyed for longitudinal and transverse cutting.

3.5. Heat-shrinking of the finished packages

Heat-shrinking of packages filled with product is performed in heat shrink tanks or tunnels by means of immersion of the packages containing the product in hot water or sprinkling with hot water (exposure to steam) with a temperature from 82 °C to 95 °C during 2 – 3 seconds.

After that the packaged product may be dispatched for weighing, labeling and storage.

3.6. Transportation and storage of the products

The products packaged in the **AMISTYLE BP-T/CP-T** films shall be transported and stored in accordance with the standard documentation applicable to the product (GOST, TU).

4. APPENDICES

There are no appendices to the present document.









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