



ATLANTIS-PAK

Leader In Innovative
Packaging Solutions

FILMS

AMISTYLE BP/CP

Process Operating Manual



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1. APPLICATION

This Process Operating Manual describes the procedure for packaging of food products by thermoforming with the use of **AMISTYLE BP and AMISTYLE CP** films.

AMISTYLE BP/CP 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 film is confirmed by Russian and international quality certificates.

AMISTYLE BP serves as the thermoformable bottom film used to make the tray that contains the food product.

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

The **AMISTYLE BP/CP** films are manufactured according to Specifications TU 22.21.30-052-2714-7091-2012 and are intended for secondary packaging of various food products (meat-based food, chilled meat, chilled poultry, sausages and delicatessen, chilled fish, cheeses and cheese-based products) by the method of vacuum or MAP thermoforming in order to prolong the shelf life.

The **AMISTYLE BP/CP** films are suitable for processing on various types of thermoformers.

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

2. PROPERTIES AND ADVANTAGES

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

- excellent sealability of **AMISTYLE BP and AMISTYLE CP** between themselves and with other films within a wide range of temperatures;
- 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 to water vapor and gases (oxygen, nitrogen, carbon dioxide);

The **AMISTYLE BP** films are produced by an innovative method (triple bubble biaxial orientation) that allows stretching during the thermoforming without critical thinning in certain areas.

Thus, the combined **AMISTYLE BP and AMISTYLE CP** films provide for preservation of food products, prolong their shelf lives, and open the way for packaging of food with the use of high-rate automatic equipment.

The thinness of the **AMISTYLE BP/CP** films contributes to their lower environmental impact due to the reduced amount of polymer wastes.

Absence of chlorine-containing substances makes the **AMISTYLE BP/CP** films more environment-friendly because of their safer disposal of the packaging.

See the technical characteristics of the **AMISTYLE BP/CP** films in the Product Specifications.



3. ASSORTMENT

Film	Thickness, μm	Application
Amistyle BP-60	60	Bottom film for secondary packaging by the method of thermoforming
Amistyle BP-90	90	
Amistyle BP-110	110	
Amistyle CP-40	40	Lidding film for secondary packaging by the method of thermoforming
Amistyle CP-50	50	

Amistyle CP film width: 100 – 750mm (with 1mm increments).
Amistyle BP film width: 100 – 630mm (with 1mm increments).

Color: clear

Marking: single-color, multi-color or CMYK printing with inks based on volatile solvents.

Form of supply: rolls on dia 76mm cardboard cores

Standard film length in a roll

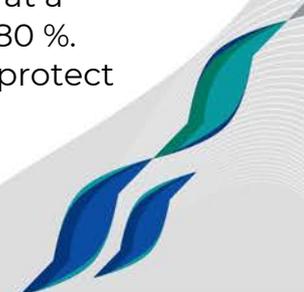
Film	Width, mm from	Width, mm to	Length in roll, m
CP-40	100	700	1,000
CP-40	705	750	500
CP-50	100	570	1,000
CP-50	575	750	500
BP-60	100	470	1,000
BP-60	475	630	500
BP-90	100	630	500
BP-110	100	630	500

4. FILM PROCESSING

4.1. Film storage and transportation

4.1.1. Keep the film in enclosed dry rooms at a distance of not less than 800mm from heaters, in the absence of strong-smelling or corrosive substances, at a temperature from + 5 °C to + 35 °C and relative humidity not more than 80 %.

4.1.2. Transport the film at temperatures not exceeding 40 °C, and protect against direct sunlight.



4.1.3. When the film has been stored at a temperature below 0 °C, keep it at room temperature before processing for at least 24 hours without opening the manufacturer's packing.

4.2. Food product packaging

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

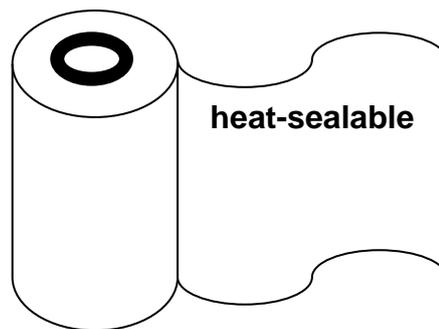
To ensure stability of the packaging process, observe the manufacturer-recommended operating modes for the packaging equipment.

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

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.

The **AMISTYLE BP/CP** films have a heat-sealable polyethylene (PE) layer on the inward side of the film web.



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

4.2.1. Forming of a tray from the roll of the **AMISTYLE BP** bottom film

Trays are made automatically by heating of the rolled **AMISTYLE BP** bottom film and forming of tray shapes 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** film depends on the number of trays formed per cycle of the equipment; the maximum depth may be as great as 10cm for the 1x1 and 1x2 formats.

Recommended thermoforming parameters for the **AMISTYLE BP** film:

Forming temperature: 90-110 °C

Film heating time - 2 - 4 s

Film drawing time 1 - 2 s

Drawing pressure 1.5 bar - 2 bar

4.2.2. Placement of food in the formed tray

The formed trays are fed by a belt conveyor to the product dosage zone, where the food is placed on the tray automatically or manually.

During the dosage take care to match the product volume with the tray size and shape.

4.2.3. Package sealing

After dosage of the food into the trays, the thermoformer uses the **AMISTYLE CP** lidding film to seal the trays with simultaneous evacuation of air from the packages. Trays are sealed by means of heat-sealing.

The sealing temperature for the **AMISTYLE BP/CP** films varies depending on the equipment operation rate, and lies within the range of 120 – 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 food.

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.

4.2.4. Cutting of packages

The sealed packages are conveyed for longitudinal and transverse cutting.

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

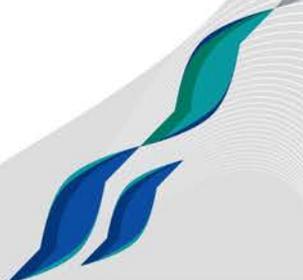
4.3. Transportation and storage of products

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

5. MANUFACTURER'S GUARANTEES

The shelf life of the **AMISTYLE BP** film is 2 years from manufacture to processing, subject to compliance with the transportation and storage requirements for the user's warehouse, and provided that the manufacturer's packing remains intact.

The shelf life of the **AMISTYLE CP** film is 2 years from manufacture to processing, subject to compliance with the transportation and storage requirements for the user's warehouse, and provided that the manufacturer's packing remains intact.



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