



ATLANTIS-PAK

Leader In Innovative
Packaging Solutions

Casings **amitan**

AMITAN Pro

Process Operating Manual



www.atlantis-pak.top
info@atlantis-pak.top



1. APPLICATION

The **AMITAN Pro** is a single-layer casing with a glossy surface and medium permeability to water vapor, gases and process smoke.

The **AMITAN PRO** casing is designed for production of all kinds of cooked sausages and hams made by technological processes that involve smoking (smoke roasting), which makes it possible to obtain products with the traditional organoleptic characteristics typical of products in cellulose casings.

The **AMITAN PRO** casing is made by a proprietary technology from blends of high-quality synthetic and natural materials.

2. ADVANTAGES OF PRODUCTS

2.1. Advantages of the casing

2.1.1. The **smoke-permeable AMITAN Pro** casing makes it possible to roast and smoke products to impart to them the characteristic pleasant taste and flavor, and to create the coagulated protein crust and glossy surface of the products under the casing.

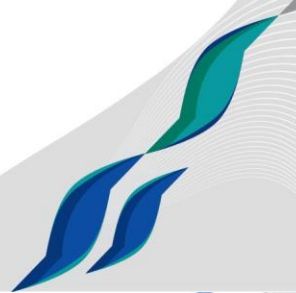
2.1.2. The **high mechanical strength** of the **AMITAN Pro** casing makes it possible to form chubs not only by manual tying, but also with the use of various clippers, which provides for a high rate of production. In contrast to cellulose casings, the probability of the clip damaging the casing is substantially lower. The **AMITAN Pro** casings can be filled with emulsion faster than cellulose casings.

2.1.3 The **high elasticity** of the casing makes it possible to overfill the **AMITAN Pro** casing by 13-15%.

2.1.4 The **high oxygen barrier capacity** compared with the cellulose casings ensures the following advantageous properties:

- reduction of the oxidation processes, in particular, rancidification of fats;
- preservation of the individual flavor of spices in the finished products throughout the shelf life.

2.1.5 With its **low water vapor transmission rate**, the **AMITAN Pro** casing is an economical alternative to cellulose casings, because moisture losses are reduced during the thermal processing and storage (it has been found in practice, that thermal processing losses of products in the **AMITAN Pro** casings are 2.0-2.5 times lower than those for cellulose casings).



The vapor transmission rate of the **AMITAN Pro** casing is 2.0-2.5 times lower than that of cellulose casings, a level which makes it possible to:

- achieve the required degree of smoking of sausage products with characteristic taste and flavor, and the coagulated protein crust on the surface;
- reduce the moisture losses during the thermal processing and storage of sausage products in the **AMITAN Pro** casing.

2.1.6 The **high heat resistance** of the polymers used for production of the **AMITAN Pro** casing significantly extends the temperature range of use of this casing in comparison with cellulose casings. The casing is resistant not only to high temperatures of smoking (up to 80-85 °C), but also to prolonged exposure to heat.

2.1.7 Microbiological resistance.

The polymers used for production of the **AMITAN Pro** casing are impervious to bacteria and mold fungi. This improves the hygienic characteristics of both the casing itself, and the finished products.

3. ASSORTMENT

The casing calibers are 50 - 120mm.

Colors of the **AMITAN Pro** casing: white, clear, claret, cherry, smoke, brown, red orange, red, cream, cream 1, salmon, mahogany, orange, pink, light brown, light brown 1, light smoke, dark brown.

The color range is subject to change.

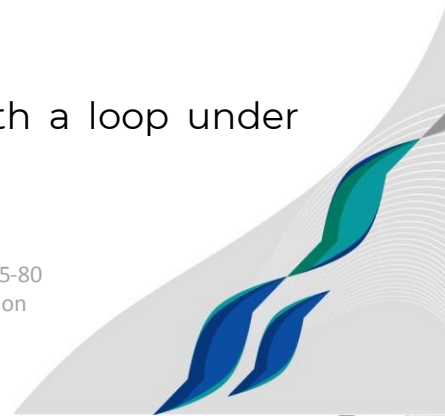
The **AMITAN Pro** casing is suitable for single- or double-side printing. The number of print colors varies from 1 to 6. CMYK printing is optional.

For comparison: the Cellophane casing is supplied with labels inserted between the layers. The material of the label is either moisture-proof parchment or white cellophane. The label can be printed, at the customer's option, with single - or multi-color marks (up to 4 colors).

The **AMITAN Pro** casing is supplied in reels of 1,000m (calibers 50-90) or 500m (calibers 91-120), or in sticks, each stick containing 38m or 50m of shirred casing.

Special services can be ordered:

- printing: edge-to-edge printing;
- shirring: manufacture of shirred sticks with a loop under the rear clip;



- bespoke length of the stick or casing.

4. HOW TO USE THE CASING

4.1. Storage and transportation of the casing

4.1.1 The casing must be stored in the original packing in closed dry and clean rooms conforming to the sanitary-hygienic standards for the relevant sector of the food industry, at a distance of not less than 1m from any heaters, and in the absence of any strong-smelling or corrosive substances, at a temperature not exceeding 25 °C.

4.1.2 During storage and transportation, the casing should not be exposed to direct sunlight or high temperature.

4.1.3 Open the manufacturer's packing just before processing of the casing. If the integrity of the manufacturer's packing is compromised during storage, exclude any possibility of premature humidification (wetting) of the casing during the subsequent storage, since it may cause adhesion of the casing in the process of drying and rupture during the processing.

4.1.4. Never stack casing reels without cardboard spacers between the reel ends.

4.1.5. If the casing was transported or stored at a temperature below zero, then prior to use hold it at room temperature for not less than 24 hours.

4.1.6. Never drop the boxes with casings or subject them to impacts.

4.2. Preparation of the casing for processing

Preparation of the **AMITAN Pro** casing for processing consists in the following:

Bring the casing to the production shop from the store, put it on a dry surface (floor, table), then open the manufacturer's packing immediately before use of the casing.

Soak in potable water at a temperature of 20-25 °C. Do not soak the casing in hot water, otherwise it will shrink during the soaking process.

Reel casing must be first cut into lengths, then soaked. When sticks of shirred **AMITAN Pro** casing are used, keep the stick fully submerged in water. Water must freely penetrate inside the stick, driving out the air.



Soak for not more than 2-5 minutes ***immediately before stuffing and forming.***

After soaking, remove the residual water from the tube, and put the casing over the stuffer horn.

Do not soak more casing than is required. If too much casing was soaked, take the leftover casing out (after 2-5 minutes), drain the excess water, and leave until the eventual processing in a cold room (shop) away from any sources of heat and air draughts. In contrast to the hygroscopic Cellophane casing that loses up to 80% of its strength as the humidity grows, easily stretches and becomes totally unsuitable for production, the **AMITAN Pro** casing can be re-used after re-soaking by dipping.

If these requirements are observed, the casing will acquire a high elasticity, which significantly facilitates the stuffing process, and provides for uniform filling through the entire length of the chub.

4.3. Forcemeat composition

For the production of cooked sausages and hams in the **AMITAN Pro** casing, the quantity of water added to the emulsion shall be the same as when cellulose casings are used.

When new recipes are developed according to the standard specifications, the amount of the added water should be determined with regard to the moisture-retaining properties of the gelling agents used (such as carrageenans, plant proteins, animal proteins, etc.), and the relevant instructions on use must be followed to avoid formation of water and fat pockets.

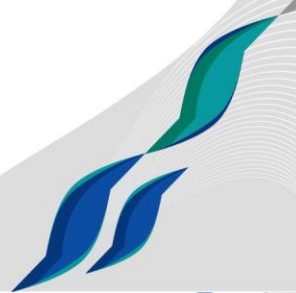
4.4. Forming of sausages

Forming of products in the **AMITAN Pro** casing starts with inspection of the equipment and of the work table.

Make sure there are no burrs on the equipment parts, or sharp objects, indentations, or rough places on the working surface of the table, in order to avoid damages to the casing.

Avoid any rubbing of the casing reel end against rough surfaces during the processing.

Never prick (puncture) the casing of frankfurters and wieners. The casing will burst, if punctured.



The ratio between the stuffed caliber and the nominal caliber of the casing is an important factor. In the process of forming of the sausage products, take care to fill the casing as tight as possible, without air trapped inside. It is recommended to stuff the **AMITAN Pro** with 13 – 15% overfilling (when the 65mm nominal caliber casing is used, the recommended stuffed caliber should be 73 – 75mm), depending on the emulsion consistency and temperature, and the stuffing pressure). The lower the emulsion temperature and the denser the consistency, the less should be the stuffed caliber.

Compliance with the recommended stuffed caliber ensures a good look of the finished products, increases the stuffing capacity, and reduces the risk of water and fat pockets and ruptures of the casing.

In case of manual tying of sausage chubs, pay special attention to the quality of the tying material, and pre-soak the string, whenever necessary, to soften the hard inclusions and prevent damage to the casing.

The clip must securely hold the ends of the chub, without damaging the casing. (see Table 1).

Recommended clip types

Table 1

Caliber	POLY-CLIP		TECHNOPACK		COMPO	ALPINA
	Clip interval 15 interval 18	Clip series S	Clip series E	Clip series G	Clip series B	Clip interval 15 interval 18
50-75	15-7-4×1.25	524	210	175	B1	15-7-5×1.5
	15-7-5×1.5	528	212	370		15-7-5×1.75
	15-7-5×1.75	625	410			18-7-5×1.5
	18-7-5×1.5	628				18-7-5×1.75
	18-7-5×1.75					
76-120	15-8-5×1.5	632	212	175	B2	15-8-5×1.5
	15-7-5×1.5		220	200		15-7-5×1.75
	18-7-5×1.5		222	370		18-7-5×1.5
	18-7-5×1.75		410			18-7-5×1.75

4.5. Thermal processing

Thermal processing of cooked sausages and hams in the **AMITAN Pro** casing is carried out in universal heat chambers.



Manufacturers should choose their own individual thermal processing modes, because the capacity of the equipment is all-important in this process.

Drying should start at a temperature of 55 – 60 °C. As the drying cycle progresses, the temperature is gradually raised to 60 – 65 °C. At this stage coagulation of the emulsion proteins is achieved, and the 'protein crust' is formed.

The next stage is smoking at a temperature of about 70 – 75 °C. At this stage further consolidation of the crust occurs and the crust becomes colored under the effect of the smoke components.

Then the product is cooked at the air humidity of 100% and a temperature of 75 – 80 °C until ready for consumption.

After completion of the cooking process, it is also recommended to carry out a short drying during 5-10 minutes at the temperature of 65 °C.

After completion of the cooking process, it is also recommended to carry out a short drying during 5-10 minutes at the temperature of 65 °C.

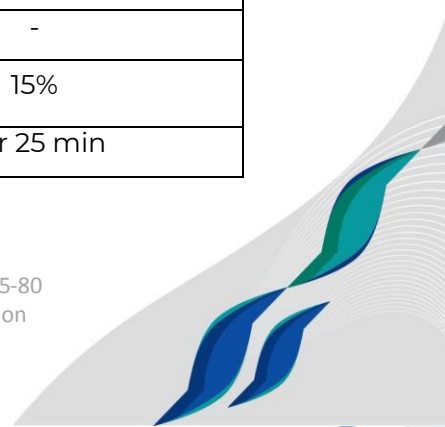
The processes of drying and smoking have a significant impact on the quality of the finished product. By adjusting the temperature and duration of these stages, the thermal processing losses, the crust thickness, the color and the taste of the product can be varied.

See Table 2 below for comparison of the thermal processing modes for products in the **AMITAN Pro** and in cellulose casings.

Two-frame Vemag chamber, alder + beech chips

Table 2

Process stage	Casing type	
	AMITAN Pro	Cellophane
Drying	55 °C – 30 min.	55 °C - 20 min.
Drying		60 °C – 10 min.
Smoking	60 °C – 10 min.	-
Smoking	65 °C – 10 min.	65 °C – 15 min.
Smoking	70 °C – 10 min.	-
Cooking	78 °C to 72 °C in the chub core	78 °C to 72 °C in the chub core
Drying	65 °C – 10 min.	-
Thermal processing losses	6%	15%
Total time	1 hr 40 min.	1 hr 25 min



4.6 Cooling

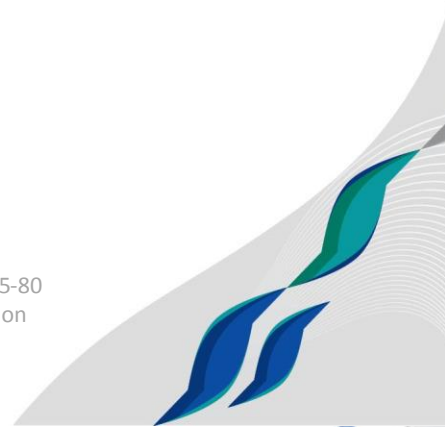
Upon completion of the thermal processing, the products in the **AMITAN Pro** casing must be immediately cooled. Cooling can be carried out under running water or shower, or by means of time-delayed sprinklers, until the chub core temperature is down to 25 - 35 °C.

Avoid any cold air cooling. Exclude any exposure of the finished products to air draughts until completely cooled, because this may cause wrinkles on the surface.

5. MANUFACTURER'S GUARANTEES

The Manufacturer guarantees conformity of the casing with the Specification requirements subject to compliance with the required conditions of transportation and storage at the user's warehouse.

The guaranteed shelf life of the casing is 2 years from the date of manufacture, subject to integrity of the manufacturer's packing.





PCF ATLANTIS-PAK LLC
Address: 72 Onuchkina str., village of Lenin,
Aksay district, Rostov region,
346703 Russian Federation
Phones: +7 863 255-85-85 / +7 863 261-85-80
Fax: +7 863 261-85-79
www.atlantis-pak.top
info@atlantis-pak.top

