

Product specification

5-layer thermoshrinkable casing GMX

Description:

5-layer structure of casing SUPRACASE GMX provides very good water vapour, oxygen and UV radiation barrier. Only unprocessed polymers of highest quality, approved for contact with food, were used for production of the casings. The casing is characterized by increased overfilling parameter, which makes it more flexible. Unique structure of the casing constitutes very good protection of the product against loss of aroma, shelf life shortage and loss of original form for up to three months period, depending on the type of stuffing and thermal processing.

Application:

- unsmoked sausages and cured meat products emulsion like, containing chunks of meat, seasonings and other additives, e.g.: liverwurst, meat spread, luncheon meat, mortadella, ham, sirloin,
- ready-made products: brawn, black pudding, aspic,
- processed cheese (non-ripening cheese mass),
- products with high water content: soups, sauces.

Restrictions of use:

- contact with the producer is required in case of attempt of other application than described above,
- the casing is not suitable for heating in microwave ovens,
- the casing cannot be used as a toy,
- the casing is not suitable for usage in temperature higher than 90°C,
- the casing is not suitable for consumption.

Advantages:

- high mechanical resistance of the casings is particularly important while clipping them on automatic or semi-automatic clipping machines,
- diameter stability, which has important role in production of portion sticks with initially fixed weight,
- high flexibility and thermoshrinkability ensure unwrinkled and smooth surface of a final product,
- low oxygen and water vapour permeability,
- lack of weight loss during thermal processing and storing of products packed in the casings,
- long shelf life (up to 90 days) of product packed in the casing,
- excellent appearance (no wrinkles) of the product during all period of storage,
- no possibility of microbiological contamination
- increased flexibility, overfilling parameter.

Storage conditions:

- store in original packaging,
- place of storage should be dry, clean and cool,
- storage temperature 5-30°C, max humidity 75%,
- recommended transport temperature < 35°C
- unpack directly before usage,
- if the casing will be unpacked during storage, make sure that the casing is not wet, as this may lead to sticking while drying and subsequently tearing of the casing while unwinding, filling and processing,
- stacking rolls of casings without spacers between them is absolutely forbidden,
- the product should be stored away from high temperature sources as well as direct sunlight,
- every time casings should be, prior to use, conditioned in ambient temperature (5-30°C) for at least 24 hours,
- if casings was transported in temperature below 5°C conditioning time should be prolonged to min. 48 hours.
- transport, storage and converting conditions must exclude damage, moisture and destruction of the casing.

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Technical data:

Diameter (mm)	32	35	40	45	50	55	60	65	73	80	86	90	95	100	110	120
Width (mm)	50	55	63	70	78	86	94	102	115	125	135	141	150	157	172	188

table of standard nominal diameters/widths

Width (mm)	Tolerance (mm)
50 – 79	± 1
80 – 125	± 2
126 – 188	± 3

table of flatwidth tolerance (ISO 4592)

- flatwidth measurement of the casing should be performed after unwinding minimum 3 meters of the roll,
- permissible deviation of meters number in roll respectively ± 1% (nominal value).

Diameter (mm)	Tolerance (mm)
32 – 50,5	± 1
51 – 80	± 2
80,5 – 120	± 3

table of diameter tolerance of shirred casings (own method)

- permissible deviation of meters number of the shirred stick might be respectively (nominal value) ± 2% (own method)
- free thermoshrinkability – longitudinal / transverse 10% ± 2 p.p.*, temperature 70-75°C (own method)
- *p.p.- percentage point
- thermal resistance from -20 / +90°C
- minimum internal tensile strength 0,05 MPa

Table of barrier values (permeability values)

Unit	Parameter	Value	Method
$\frac{\text{cm}^3}{\text{m}^2 \times 24\text{h} \times \text{bar}}$	Gas permeability	O ₂ max. 35	ASTM D 3985-05 [23°C, 0%RH]
$\frac{\text{g.}}{\text{m}^2 \times 24\text{h}}$	Water vapour permeability	H ₂ O max. 15	ASTM F 1249-05 [38°C, 90%RH]

Table of recommended overfilling

Width of the casing [mm]	Diameter of the casing [mm]	Recommended overfilling [%]
50 – 59	32 – 37,5	5 ± 1
60 – 92	38 – 58,5	7 ± 1
93 – 124	59 – 79	9 ± 1
125 – 188	80 – 120	11 ± 2

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Instructions for use:

- soak the casing in running water at the temperature of 20-25°C before usage,
Higher soaking temperature is forbidden due to thermoshrinkable properties of the casing.
- casing should be soaked evenly: inside and outside,
- soaking time:
 - minimum 30 minutes for non-shirred casing cut into sections,
 - minimum 60 minutes for shirred casing,
- soak such amount of casings that can be used within 4-5 hours,
- water in the tank should be changed at least once every 12 hours,
- the casing must not come in contact with any rough surface

Filling and thermal processing:

It should be ensured that filling equipment has no sharp edges that could damage the casing, since the casing may break if punctured. It is necessary that, while filling the casing, no air remains in it.

- unmatched or wrongly closed clips can damage the casing,
- observe clip size and hardness selection criteria,
- stick's weight should not exceed 4,5 kg (for hanging treatment),
- after disinfection of the steam chamber with chemicals, it is essential to thoroughly rinse it. If this step was dismissed casing printing may delaminate or the casing surface may break,
- standard “step by step” processing is recommended:

Step 1. Temperature inside the steam chamber 55°C, humidity 100 % for 15 minutes,

Step 2. Temperature inside the steam chamber 65°C, humidity 100% for 20 minutes,

Step 3. Temperature inside the steam chamber 70°C, humidity 100% for 30 minutes or up to 60°C in each product's core,

Step 4. Temperature inside the steam chamber 75-90°C, humidity 100% for 10-15minutes, to 72°C in each product's core,

- after steam-simmering, sausage sticks should be cooled immediately,
- they should be cooled by running water, shower or programmable sprinklers. The cooling should continue until the temperature inside the product drops down below 30°C.

Note: Putting the hot sticks in the cold room may cause wrinkling of the products surface.

Warranty period (not longer than best before date placed in Quality control certificate) is 12 months for non-shirred and 6 months for shirred casings, from the date of sale.

The warranty is binding provided the client follows general and particular recommendations described above.

Producer informs that the performance of the casing is strictly connected with the quality and type of stuffing as well as filling and thermal processing technology applied by the client. Thus typical data described above in specific applications can be subject to a change.

In any case, you should test the product in your own conditions, according to your needs before use