

### HIGH-BARRIER SHRINK PACKAGING FOR FOOD PRODUCTS



### ABOUT THE COMPANY

### Dear customers, dear business partners!

REMIUMPACK is an Austrian family company headquartered in Vienna and has specialised in the production of multilayer high-barrier shrink films for food packaging since 2010.

### Quality and expertise for your competitive edge

We bundle more than a decade of technical know-how, experience and innovation to benefit our customers in the food industry:

Our technologically advanced food packaging guarantees effective protection against environmental influences and thus extends the shelf life of the packaged products.

PREMIUMPACK high-barrier shrink films have been tried and tested for many years and exceed international industry standards because at the heart of our company is quality - from the selection of raw materials to the production process and the end products. That's what our name stands for!

Dominika Pasula and Michel Szczepanski Management

Parula MAS-6



From left to right: Georg Pachner (Sales Director), Dominika Pasula (Managing Director), Tomasz Siedlecki (Head of Production), Michel Szczepanski (Managing Director)



#### From Austria to the whole world

We perform the complex production processes for our packaging material with several extruders and bag machines at the Hagenbrunn production site near the company headquarters on the outskirts of Vienna, Austria.

PREMIUMPACK exports to around 55 countries worldwide and thus covers the demand for high-quality packaging films across all continents.

## "At the heart of our company is quality - from top to bottom."



#### Sustainability for our future

As part of our environmental and social responsibility as a company in the food industry, we take sustainable food packaging and the conservation of resources in their manufacture very seriously; they are the focus of our research and development efforts.

Innovative and efficient packaging protects the food, ensures efficient resource usage and reduces packaging waste.

With environmental protection and efficiency in mind, we are constantly developing new and improved as well as environmentally friendly food packaging with less material. This helps us shape the path to a more sustainable industry.

Our waste management system also ensures that total waste volumes are reduced and efficiently recycled so that new products can be created from plastic waste.



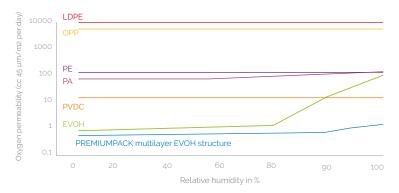




### Maximising shelf life

Our high-barrier shrink films act as a protective packaging for food, keeping it fresh throughout the supply chain and even during long storage periods. To achieve this, our multi-layered packaging films use an EVOH barrier as protective layer.

### Barrier properties of EVOH compared to other materials



EVOH is an environmentally friendly ethylene vinyl alcohol polymer consisting mainly of carbon, oxygen and hydrogen. It has the following positive properties:

### $\dots$ it acts as an excellent barrier against gases and increases shelf life

EVOH forms an effective and powerful barrier against oxygen and other gases such as nitrogen, carbon dioxide and helium and almost completely prevents them from penetrating the film. Compared to conventional LDPE films, EVOH films have a gas barrier that is 10,000 times higher.

### ... it reduces the need for preservatives and guarantees food freshness

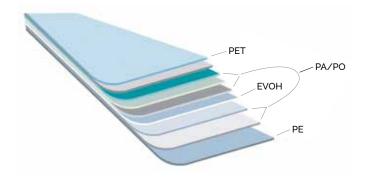
Extending product shelf life it reduces the need for preservatives. In many cases, preservatives no longer need to be used at all. That's because our films optimally preserve the taste, smell, colour and freshness of the packaged products.

### ... it offers a high level of health safety

EVOH does not contain chlorine, dioxins or other elements that could cause endocrinological diseases. This is a significant safety benefit for consumers.

**CONCLUSION:** EVOH-based packaging forms the highest barrier to oxygen compared to alternatives under dry conditions. That's why PREMIUMPACK uses a multi-layered structure that protects the EVOH layer from moisture both inside and out. This creates the ultimate oxygen barrier (see figure on the left).

## MULTILAYER TECHNOLOGY FOR FOOD PACKAGING



The multi-layered structure developed by PREMIUMPACK offers a flexible, multifunctional high-barrier packaging for a wide range of products and applications. Thanks to the use of state-of-the-art technologies and materials, each layer offers its own individual benefits in protecting the packaged product. This makes our products market leaders with regard to shrinkage rate, durability, puncture resistance, mechanical and visual properties.

### Advantages of our high-barrier shrink packaging:

#### Brilliant transparency and gloss

PREMIUMPACK's shrink materials form a second skin around the product. Thanks to the PET outer layer, the product has a high gloss and excellent transparency.



### Highest shrinkage rates

Thanks to our triple bubble extrusion and several layers of polyolefin (PO), our

materials have shrinkage rates of up to 50%. This gives them a perfect fit while at the same time preserving the product's flavours.



### Highest puncture resistance

Several layers of polyamide (PA) help to achieve excellent mechanical proper-

ties and reduce the air entrainment rate. This prevents product damage during storage and transport.



### Longest shelf life

The EVOH barrier provides optimal protection against gases such as oxygen, carbon dioxide,

nitrogen and helium. It considerably extends the shelf life of fresh meat and cheese. In addition, our multi-layered structure offers optimum protection against water vapour and UV rays while also minimising the weight loss of the packaged products through high shrinkage rates.

### Strongest seals

Thanks to the special composition of the high-quality polyethylene layer, our products have optimum sealing properties, even under the toughest conditions, such as those where the sealing is exposed to oils and liquids.

### Overlapping seal

Thanks to the outer PET layer, two bags can be sealed one on top of the other without the bags becoming stuck together (overlapping seal). The PET outer layer also has

the advantage that any creases during the sealing process can simply be closed off.



### Environmental protection

PREMIUMPACK packaging material was developed without harmful PVDC (dioxins.

chlorine). We combine an environmentally friendly approach using future technology.











### PREMIUMfresh 45

PREMIUM fresh45

his multilayer high-barrier shrink bag has a thickness of 45 µm and was developed for packaging food without sharp edges.

**PREMIUM**fresh 45 is the ideal choice for a wide range of products, such as meat products and sausages, mature cheeses, fresh as well as cooked and processed meat, poultry and poultry cuts.

Every packaged product looks very attractive thanks to an excellent shrinkage value of 50%. The effective EVOH barrier reliably protects against gases and oxygen and ensures a long shelf life.

#### **Variants**

PREMIUMfresh 45 Invisible Seal

### **Application**

Fresh meat, processed boneless meat, sausage products, ham, mature cheese









### **Properties**

- $\cdot$  Very good shrinkage properties (up to 50 %)
- Overlapping seal possible
- $\boldsymbol{\cdot}$  Excellent transparency and high gloss

### Advantages

- · Best all-rounder material
- Extreme increase in shelf life thanks to EVOH.

### **Specifications**

Thickness:	45 µm
O <sub>2</sub> permeability:	1,4 cm <sup>3</sup>
Shrinkage value:	< 50 %
Puncture resistance:	30 N













### PREMIUMfresh 75

This multilayer high-barrier shrink bag has a thickness of 75 µm and was developed for secure packaging of food with rough surfaces or sharp edges.

PREMIUMfresh 75 is ideal for products such as bacon, whole poultry or poultry cuts on the bone. This shrink bag is also the ideal choice for maturing beef or veal.

PREMIUMfresh 75 is valued in the food industry as a safe form of transport packaging due to its resilience. Transparency and gloss also make the product highly attractive at the point of sale.

### **Application**

Meat and cheese with sharper edges, poultry on the bone













### **Properties**

- Increased mechanical resistance
- Very good shrinkage properties (up to 50%)
- Excellent transparency and high gloss

### **Advantages**

- · Ideal transport packaging under demanding conditions
- Extreme increase in shelf life thanks to EVOH

### **Specifications**

Thickness:	75 µm
O <sub>2</sub> permeability:	0,8 cm <sup>3</sup>
Shrinkage value:	< 50 %
Puncture resistance:	48 N



PREMIUM fresh75













### **PREMIUMmax**

This multilayer high-barrier shrink bag has a thickness of 95  $\mu$ m and was developed for the most demanding conditions in terms of puncture resistance for a variety of products with extremely sharp edges.

**PREMIUM**max makes packaging processes more efficient by eliminating the need for a boneguard and minimising the risk of high air pull and return rates.

The very good shrinkage properties of 30-35% also ensure a glossy appearance.

#### Variants

PREMIUMmax 75, PREMIUMmax @

### **Application**

Meat with sharp-edged bones such as spare ribs, T-bone steaks, ribs or leg of lamb



#### **Properties**

- Very good shrinkage properties (up to 35%)
- Premium sealing properties
- Excellent transparency and high gloss

### **Advantages**

- · Industry-leading puncture resistance
- Extreme increase in shelf life thanks to EVOH

### **Specifications**

95 µm
$0.7 \text{ cm}^3$
< 35 %
155 N



PREMIUM max











### **PREMIUMcook**

This cooking shrink bag has a thickness of 45  $\mu$ m and was developed for meat products that are cooked or boiled as well as transported in the same packaging. This means that time-consuming repackaging is no longer necessary and labour costs are reduced.

The unique composition of our material and the very good shrinkage rates help to minimise weight loss during the cooking process and give the product an attractive and glossy appearance.

### **Application**

- As a "cook-in ship" bag to protect the products right up to the point of sale
- · As a "cook-in strip" bag for in-house processing





### **Properties**

- · Reduced fluid and weight loss
- Surface pasteurisation at high temperature
- · Slow cooking at low temperatures

### Advantages

- Reduction in the number of required work steps no repackaging
- Quality can be maintained thanks to consistently sealed packaging during production and distribution

### **Specifications**

45 µm
1,4 cm <sup>3</sup>
< 35 %
28 N



PREMIUM cook









### **PREMIUMcheese**

**REMIUMcheese** has been specially developed for the requirements of maturing cheeses: this shrink bag consists of different layers whose oxygen and carbon dioxide barrier can be customised. This optimally supports the individual ripening process and preserves the intensity of the cheese's aroma and flavour.

For matured cheese, **PREMIUM**fresh 45 offers a high barrier against gases and water vapour.

**PREMIUM**cheese shrink bags are available both as ultra-transparent and in different colours.

### Variants

PREMIUMcheese High Gas, PREMIUMcheese Low Gas,

PREMIUMcheese Invisible Seal

PREMIUM cheese

### **Application**

For cheese during the maturing process with various levels of gas development





#### **Properties**

- $\cdot$  Very good shrinkage properties (up to 50 %)
- Excellent sealing properties
- Overlapping seal possible

### Advantage

Adjustable barrier for gas/oxygen exchange depending on the specific requirements of the type of cheese

### **Specifications**

Thickness:	45 µm
O₂ permeability:	322 cm³ (HG),
	127 cm³ (LG),
CO <sub>2</sub> permeability:	1.250 cm³ (HG),
	784 cm <sup>3</sup> (LG)
Shrinkage value:	> 40 %
Puncture resistance:	27,7 N (HG),
	31,7 N (LG)













### **PREMIUM**flow

This multi-layered, high-barrier shrink film is suitable for use with flow-pack machines. The excellent quality of the material enables high production speeds and short cycle times. Depending on the product requirements, we offer **PREMIUM**flow in different variants.

#### Variants

PREMIUMflow 45, PREMIUMflow 75, PREMIUMflow High Gas (as maturing material for cheese application, therefore without EVOH)

### Application depending on variant

- · Boneless fresh meat, sausage products and mature cheese (PREMIUMflow 45)
- Meat with sharp edges or bones (PREMIUMflow 75)
- · High-gas, ripening cheeses (PREMIUM flow High Gas)















### **Properties**

- · High shrinkage properties (up to 50%)
- Premium sealing properties
- Excellent transparency and high gloss

### Advantages

- For horizontal flow-wrapping machines (flow-pack machines)
- Ideal for high production speeds

### **Specifications**

Thickness:	45-95 µm
Width:	200-1.200 mm



PREMIUM flow











### **PREMIUM form**

This multi-layered, high-barrier shrink film was developed for thermoforming machines. As a mouldable, shrinkable bottom film, together with a shrinkable top film made of PREMIUMfresh material, it forms packaging with excellent machinability.

The food to be packaged is placed in the mould of the bottom film, which is then vacuum-packed and sealed. The product is then shrunk in an automatic shrink tunnel or shrink tank.

This process offers decisive advantages, especially when large quantities of identical products are packaged at high cycle rates.

PREMIUMform can be used on thermoforming machines designed for shrink film as well as on a variety of standard thermoforming machines.

#### **Variants**

PREMIUMform 70, PREMIUMform 90, PREMIUMform 120, PREMIUMform 150

### **Application**

Fresh and processed boneless meat, sausages and many other products













### **Properties**

- 15% shrink rates for bottom film and up to 50% for top film
- · Easily malleable bottom film
- Extreme increase in shelf life thanks to EVOH

### **Advantages**

- For thermoforming machines
- · Ideal for large quantities of identical products

### **Specifications and dimensions**

Thickness of the

top film:	45 & 75 µm
Thickness of the	
bottom film:	70-150 μm
Width:	200-590 mm



PREMIUM











### **PREMIUMLite**

Sustainable packaging material is increasingly becoming an influencing factor for customer purchasing decisions at the point of sale. In response, PREMIUMPACK offers environmentally friendly product innovations such as **PREMIUM**lite:



PREMIUMlite is an ultra-thin 9-layered high-barrier shrink material that is ideal for a wide range of applications, such as fresh meat, processed boneless meat, sausages and sausage products as well as some cheeses.

### Innovative production technology for a better future

A special production technology developed by PREMIUMPACK enables a 40 percent reduction in material usage compared to equivalent products. This guarantees the proven PREMIUMPACK quality (barrier, puncture resistance, gloss).

The use of **PREMIUM**lite minimises resource use, as the ultra-thin material requires less volume and is 'light as a feather'. As a result, logistics costs fall substantially.

Plastic waste is significantly reduced on a weight basis, which means that the packaging industry is making a valuable contribution to protecting our environment.

### **Application**

Fresh meat, sausage, ham, (vegan) cheese











### **Properties**

- Above-average shrinkage properties (up to 40%)
- Overlapping seal possible
- Extreme increase in shelf life thanks to EVOH

### Advantages

- · Minimum weight
- Maximum volume reduction
- High cost efficiency thanks to reduced logistics costs

### **Specifications**

•	
Thickness:	25 µm
O₂ permeability:	1,93 cm <sup>3</sup>
Shrinkage value:	< 40%
Puncture resistance:	27 N



PREMIUM lite













### PREMIUMmax **®**

REMIUMPACK supports efforts to increase the proportion of recycled packaging materials and is conducting intensive research into various solutions. This has resulted in our sustainable product innovation **PREMIUM**max (a).

The basis is **PREMIUM**max, a proven 9-layered high-barrier shrink material that is ideal for packaging fresh meat with sharp-edged bones.



In PREMIUMmax , more than 30% of the raw materials consist of alternative recycled granulate from post-consumer plastic waste. This contributes to a sustainable circular economy and the conservation of resources.

### Innovative recycling technology for a better future

In alternative recycling, the polymer chains of the plastic waste are broken down at high temperatures. Its high quality means that it lends itself to being reused for food packaging in cases where mechanical recycling is only possible to a limited extent.

- Suitable for all plastic waste no sorting necessary
- Recycling process can be repeated almost indefinitely
- Same purity and properties as conventional granules

**PREMIUM**max ② already consists of more than 30% alternative recycled material. We are planning to further increase this proportion in future. It does not differ in quality from material without recycled content. In other words, it is safe and harmless for food packaging and offers the packaging industry an additional option for sustainable action.

### **Application**

Meat with sharp-edged bones such as spare ribs, T-bone steaks, ribs or leg of lamb



#### **Properties**

- Extraordinarily high mechanical resistance
- Premium sealing properties
- Excellent transparency and high gloss

### Advantage

Guaranteed PREMIUMPACK quality using recyclate from post-consumer plastic waste to protect our environment in the interests of a sustainable circular economy

### **Specifications**

Thickness:	95 µm
O₂ permeability:	0.7 cm <sup>3</sup>
Shrinkage value:	< 35 %
Puncture resistance:	155 N



PREMIUM max ®

# SHRINK BAG VARIANTS AND INVISIBLE SEAL

#### Shrink bags

The PREMIUMPACK product range includes shrink bags made from the following materials: PREMIUMfresh 45, PREMIUMfresh 75, PREMIUMmax, PREMIUMcheese und PREMIUMcook.

With our technically high-quality bag machines, we produce bags for numerous applications and different packaging requirements:

### Available bag dimensions

- Bag width: 80 700 mm
- Bag length: 200 1300 mm



### Straight bottom seal

Width: 200 to 700 mm
Length: up to 1.300 mm
Application: cheese blocks,





#### Round bottom seal

Width: 200 to 650 mm Length: up to 1.300 mm

**Application**: fresh/processed meat,

fresh meat, sausage products



#### Side seal

**Width**: 80 to 350 mm **Length**: 200 to 700 mm

Application: fresh meat, salami, sausages,

ham, semi-finished/finished products with cuts, cheese





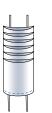
#### V shape

 Width:
 140 to 400 mm

 Length:
 200 to 700 mm

**Application**: cheese wedges, picanha,

lamb shank, pork pieces



### Bag on chain

Suitable for: bags with straight/round

bottom seal, side seal

**Application**: semi-automatic and

fully automatic bag filling

machines



### Pre-perforated on rolls

Suitable for: bags with straight/round

bottom seal, side seal

**Application**: easy handling with a bag

dispenser



#### **NEW: Invisible Seal**

The newly developed Invisible Seal bag is based on a special sealing technique developed by PREMIUMPACK: this creates a wafer-thin seal and virtually no film protrusion. This bag is available with a side seal. The following PREMIUMPACK products are available as Invisible Seal variants:

- PREMIUMfresh 45 Invisible Seal
- PREMIUMcheese Invisible Seal

### Advantages

- Up to 10% material savings -> reduction in CO<sub>2</sub> and transport weight
- Visual enhancement: the seal is almost invisible after the shrink-wrapping process, which shows off the packaged product to its best advantage.

PREMIUMPACK guarantees excellent seal quality and therefore a high level of product safety despite the wafer-thin seal.



Shrink Bag Variants

### PRINT OPTIONS

### Tailored printing

All PREMIUMPACK products are ultra-transparent as standard. However, they can also be printed using a high-quality flexographic printing process or customised with any print motifs.

Our experienced PREMIUMPACK graphic designers will be happy to help you create customised print templates.

### Available print options

- 1 to 8 colours
- · Single or double-sided
- Random or registered print
- Possible for all dimensions











Continuous print



Centred print



8-colours, full surface print

### QUALITY AND CERTIFICATION

REMIUMPACK attaches particular importance to the fulfilment of high quality standards and the continuous improvement of operating procedures and processes. Our quality management team plays a key role in this.

In order to maintain this high level of quality and hygiene, we carry out regular quality checks on the finished batches in our state-of-the-art, in-house laboratory. We analyse and document numerous parameters such as the strength of the seal, shrinkage properties, layer structure, thickness and appearance.

Our films have been confirmed as safe for food following thorough testing in accredited laboratories. PREMIUMPACK guarantees 100% traceability of all products at all times, from the raw material to the finished shrink bag.

#### What customers appreciate about us

- Highest hygiene standards
- · Full traceability of all products
- In-house production laboratory
- Top grade AA+ in certifications by external experts\*



Our products comply with national and international food regulations and EU Regulations 1935/2004, 2023/2006 and 10/2011 with subsequent amendments and corrections. PREMIUMPACK is also certified in accordance with the BRCGS Global Standard for Packaging Materials (Version 6) and achieved the top AA+ rating in 2023\*. Our products are guaranteed to be free from BPA, allergens, nanomaterials and heavy metals.

On request, we are happy to provide you with relevant data on our quality management system and inform you about other current certifications of our company.











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