

DESIGN & DECORATION | PREMIUM APPEARANCE | PERFORMANCE

# ALUMINIUM FOIL CONTAINERS



SEALABILITY | HEAT CONDUCTIVITY | HYGIENE | SUSTAINABILITY

# DESIGN & DECORATION:

The premium look of natural aluminium can be enhanced in a number of ways. Coatings not only add to the look but also to the performance of aluminium foil containers. In addition they can be embossed and printed to add real impact and brand identity.



Aluminium foil containers can also come in an almost infinite variety of designs and shapes. Deep or shallow, long or short, round or square, these containers can be made to fulfil any number of functions. Creative shapes and formats can be achieved to highlight the product or add strength, ease of handling and for a strong marketing message which emphasizes the product. Different size options are a bonus for the convenience and 'on the go' lifestyles, where product formats are booming. These not only need a reliable and safe container, but also a stylish and modern look and feel.

*Case Study – Shaping the Future:* saturn petcare has been successfully operating in the pet food segment for more than 25 years. While pet foods have always included a variety of packaging types, the company has focused on the use of aluminium in moulded shells; originally as rectangular containers in different sizes. But when looking for market differentiation

saturn petcare chose a shaped aluminium foil container and lidding system. This allowed the company to create a pack with unique shelf appearance and impact. The entire aluminium foil pack is in the shape of a dog bone, with high quality printing to emphasise bones as one of any dogs' favourite foods.



“ Containers made from aluminium foil are a perfect match for our baked cakes because they are an optimal size, thickness and format for the cake. They are ideal for the continuous manufacturing and logistics processes, as well as being suitable for easy handling by both trade and consumers. In addition aluminium foil containers are a sustainable option, offering low packaging material volume and full recyclability. ”

*Steffen Stiebling, Cakes*

“ Aluminium is a material you can work with – it is very formable and has an excellent printing surface. This makes it possible to develop new products and projects in which the contents and appearance of these aluminium trays go together excellently. We therefore have the opportunity to give fresh impetus to the pet food segment and to play an active role in shaping the market. ”

*Thomas Neumann, saturn petcare*





## PREMIUM APPEARANCE:

The shine and sheen of aluminium foil means it adds lustre to any container format and offers a premium appearance for the product, whether it is a small cake or a large ready meal. The feel of aluminium is also a factor, the tactile qualities of a smooth metal re-enforce the premium look.

*Case Study – **Looks Good And Tastes Great:** A combination of good ingredients, appetising presentation and, not least, simple preparation has proved to be the recipe for success for Scandinavian start up Homemate, which wanted to create a better, fresher alternative to fast food and the takeaway market.*



*In addition to the food itself the packaging is a significant factor. The company placed great emphasis on the food looking good all the way to the table. So it selected a black coated aluminium foil container. One of the reasons these containers were chosen was because it was important the products consistently look the same and radiate quality*

*It is also part of the concept that all dishes should, in principle, be prepared in the same way. When it came to the crunch, there were not all that many choices on the market that met these needs. There were plastic products that could deal with the heat, but they become soft to handle and do not have the exclusive look desired. The black coated alufoil versions fit the brand perfectly, and are workable within the kitchens.*

*“ We have been using aluminium containers for almost 40 years, since we are entirely convinced of the benefits of this form of packaging. They are not only light, but also tight and safe. This packaging guarantees a very long shelf life for the food inside and, once used, a high recycling rate. This saves resources and guarantees environmentally friendly handling of the food and our environment. ”*

*Klemens Siedler, albfood*



# PERFORMANCE:

Alufoil containers can perform in a wide variety of formats and situations. Whether it is for domestic, retail or food service environments these containers and trays offer reliable and flexible options to suit the situation. Strength to weight ratios are excellent and they can be used with confidence in hot or cold environments. Transfers from one state, such as frozen, to fully heated can be achieved without the need to transfer the contents – even for microwave options. So solids and semi-liquids can be handled with ease.

*Case Study – Retail Revolution:* In store delicatessen & bakeries were one of the major markets for wrinkle wall aluminium containers. But this has shrunk significantly over the last decade due to the introduction of alternative materials, which have virtually replaced aluminium. But this has necessitated stocking a variety of plastic containers for specific requirements ranging from heated products to refrigerated products.



Now an aluminium foil tray manufacturer has developed a solution as an alternative option to the various materials. The container is a two-sided, lacquered Smooth Wall Container with an inner surface which is thermosealable using peelable film - which can be used for refrigerating, freezing and heating both in traditional and microwave ovens. It is also suitable for acid and/or salted foods.

The versatility of this solution has been immediately recognised by staff of In store Delicatessens & Bakeries. The containers, which come in six different sizes, cover any take-away needs. Another interesting factor is that the lacquered aluminium, even if more expensive than some of the plastic alternatives, is preferred by counter staff for its performance and lower storage impact behind the counter.

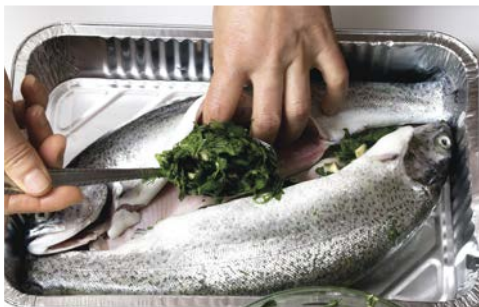
“ As a manufacturer of high-quality jams, Hero has been using aluminium containers for many years. The aluminium packaging provides a very good barrier to protect the jam and preserves the quality. This is because it fully protects the contents against light and air. In addition the beneficial colour retention and the preservation of the flavours and taste is optimized. Due to its good barrier properties, aluminium foil offers longer storage stability compared to other types of packaging.



Aluminium is also a lightweight material and offers good handling throughout the total supply chain and production process. For example it offers savings of transport costs and storage space, being stackable. Other advantages include that it can be recycled, designed individually according to customer requirements and produced in different sizes and shapes.

”

*Norma Valentinetti, Hero*





## SEALABILITY:

In today's modern omni-channel retail environment an important factor in any packaging is that it can cope with a certain degree of rough handling and transportation. Thus it is important that any seals are strong and reliable. Aluminium foil containers offer 'best in class' sealing reliability over a number of formats and sizes and using a variety of lidding materials. The uniform conductivity of foil ensures sealing can be carried out at speed without the concern for inconsistent seal strength. Sealing and adhesion science has also enabled easy peeling to be achieved as well as the ability to cope with wide temperature ranges. So the seal can cope with frozen and hold its seal performance during cooking and until the consumer is ready to peel and enjoy the contents.

*Case Study – Keeping Medical Devices Safe: A resilient container comprising ribbed alufoil plus lidding foil enables a drug delivery device manufactured by GlaxoSmithKline (GSK) to be extremely well protected from moisture ingress while holding it tightly to prevent damage due to impact or movement during distribution.*

*The design brief from GSK was for the development and industrialisation of a radically different method of containing, protecting, and delivering a vitally important inhalation device to the global market.*

*So the container manufacturer and its partners utilised their expertise in aluminium conversion technology and knowledge of the material's packaging attributes to create a durable, very high barrier container based on a deep draw aluminium tray, with a consumer friendly peelable lidding foil.*



Images: © GSK

*“ We use aluminium containers for our product “Ofen-Fleischkäs” – ready to bake. It is a semi-preserved meat product, which is pre-cooked in our factory and only needs to be baked at the customer’s premises. The container is ideal for this purpose. It is heat stable and the product can be both pasteurised and sterilised. In addition, due to its good barrier properties, it protects the product from external factors such as light and oxygen, ensuring the product characteristics are retained.*



*Compared to plastic packaging, aluminium offers many advantages, such as:*

- *No distortion at higher temperatures*
- *High consumer acceptance, as very easy to recycle*
- *A high-quality impression to the consumer*
- *Mechanical stability*

”

*Inés Seul, Rehm Fleischwaren*

# MULTI-MODE COOKING:

Aluminium containers can be used across the entire spectrum of cooking methods and a variety of convenient 'easy to use' options. Rightly they are the container of choice in the BBQ sector where they can be used direct on the charcoal grill and can offer features such as 'drain off' channels and easy handling features for both safety and convenience. But the benefits do not stop there. Aluminium foil containers offer ease of handling and reliable cooking performance in conventional or fan assisted ovens, microwaves or even old fashioned wood burning stoves or 'ranges'. They are the ultimate ubiquitous container.



*Case Study – **The End Of The Lukewarm Takeaway!**: GoTipster.dk is new takeaway concept in Copenhagen that provides access to quality food, freshly prepared by chefs at Michelin level from a choice of restaurants. This novel way to offer a takeaway service allows the participating restaurants to utilize a 'dead period' of the day to prepare meals into aluminium foil containers, which people can pick up on the way home from work. The customer can just pop the meal, which is in a cold, but pre-cooked state, into the oven or microwave and in a few minutes the food is ready!*

*This elegant concept is made possible thanks to the strength and heat conductivity of aluminium foil. Most pre-heated takeaways lose texture and taste due to the condensation inside the pack. This solution not only eliminates that problem but greatly increases the range of food – including fish dishes – which can be offered.*



# HEAT CONDUCTIVITY:

No other container offers better heat conductivity than an alufoil container. Recent advances in design and coating technology have enabled container manufacturers to offer formats which can cook multi compartment meals at different temperatures, as well as ensuring 'cook through' for meat and fish at lower temperatures or achieved using less energy, or enabling quicker cooking times. Their tolerance to extremes of heat and cold is legendary and proven beyond doubt.



*Case Study – **So Hot, So Quick!**: A multi-layer technology applied to aluminium trays and lids is able to reach temperatures well above 100°C very rapidly because it allows the pack to absorb and retain heat from a conventional oven or grill resulting in reduced cooking times of between 25 and 40% compared to conventional alufoil trays. The special coating enables infrared radiation to be transmitted in a highly efficient way into the food. The heat transmission per cm<sup>2</sup> of the tray increases by up to 400%, allowing frozen food to jump over the 'water-phase' and go directly from frozen to baked. Energy costs concern everyone, but these containers can lead to reduced energy consumption and lower CO<sub>2</sub> emissions.*





## SUSTAINABILITY:

Aluminium foil containers are fully recyclable. The environmental impact of aluminium foil is diminishing all the time as better collection and recycling technologies are developed. Today, in Europe, more than 55% is recycled. Importantly these containers also add to the fight against food waste by protecting and securing the products, often over long periods. With a more holistic approach to a sustainable environment emerging the aluminium foil container has a proven and reliable track record on a number of levels – not just through its own recycling capabilities. It is truly a container for the 21st Century.

*Case Study – **Less Material, Lower Cost, Better Product:** A downgauging project was the culmination of two years of extensive development. This included material optimization, cost saving, carbon emission cut-back and product improvement of a whole container product range. The project partners developed a new alloy with improved mechanical properties. Besides reducing the raw material usage the container production showed a total CO<sub>2</sub> reduction of 11%.*



*Case Study – **Stacking Up For The Environment:** A smooth wall cup stacks up some impressive numbers in savings on material usage, transport and energy costs, compared with standard cups. Used to pack a range of pastry speciality desserts the cup includes lacquering in black and white PET with a vinylid lid. A new alloy allows a harder temper to be achieved in the annealing process, which helps to maintain rigidity. The result is a material that is 17% thinner and 16% lighter than standard gauge cups, while offering better mechanical characteristics.*



## HYGIENE:

Once produced, alufoil is completely sterile due to the high temperature annealing process. It is safe for use in contact with foodstuffs and it does not harbour or promote the growth of bacteria. Food lasts longer as well as retaining nutritional quality. Uncooked ingredients such as meat, poultry or fish are presented in ready-to-cook packs, hermetically sealed and protected with an inert gas to reduce oxidation and to extend shelf life. The consumer need not touch the raw product and the alufoil container acts as an effective, heat-conductive, cooking vessel.

*Case Study – **Safety First For Hospitals!** Ready to cook meat products can be transferred to hospital ovens without handling any raw ingredients – a basic rule of hygiene in these highly sterile environments.*



*This lasagne product made for hospitals uses a multiportion smoothwall tray. A primary advantage of these large trays is that they offer much greater rigidity than an equivalent sized plastic tray, especially when removing them from an oven and for serving purposes. Of course these one-time use aluminium foil containers are fully recyclable – while offering the highest standards of hygiene and safe handling and are a very cost effective option too!*

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