

Foil and food, the perfect partners

— *Diversity is a popular word these days and nothing describes the role of aluminium foil in the food sector better!*

Whether it is containers or trays for cooking, display or protection, food service applications, coffee pods, or household foil used by the consumer to wrap goods for transport, storage or BBQs, there is no better material for these jobs. And let's not forget the beverage applications for juices such as lined cartons, pouches for a whole range of applications, and closures for oil, water, wines and spirits.

The diverse range of applications for foil for food and beverages was fully demonstrated at the EAFA stand during interpack where the Foil & Taste

feature drew enthusiastic crowds to watch experts from the worlds of chocolate, water & wines, coffee and a master BBQ chef show just how versatile aluminium foil can be to improve the whole food experience. The Foil & Taste event is reviewed inside this issue.

Each of the demonstrations pushed back the boundaries of conventional wisdom about taste and how foil can play a significant role. For example Europe's first water sommelier Arno Steguweit showed how the aluminium closure is completely

Alufoil Trophy 2018 Enter Now!

The hunt for the very best products and closure technologies using aluminium foil is now underway. Entries need to be submitted by **15 December 2017**. Details of categories and how to enter: trophy.alufoil.org



neutral on taste, while preserving the subtle differences of bottle waters perfectly. While our chocolatier Georg Maushagen used 'molecular cuisine' to produce foil cones of a sublime chocolate and nut confection – complimented by the perfect cup of coffee (using alufoil packs of course) from our mystery barista extraordinaire.

Meanwhile Ed van de Schootbrugge made everyone feel hungry serving up meat, fish and even halloumi all prepared in alufoil. And for a really 'wild' experience for the BBQ generation he has teamed up with EAFA to prepare a new recipe book which shows how to cook game meats in very original and exciting ways using aluminium foil. We take a look inside. ///

Half year results continue to show progress

According to figures just released by EAFA, aluminium foil deliveries from April to June 2017 showed little difference to 2016. Total domestic deliveries of all gauges increased by only 0.2% compared with last year, while exports dropped by just 1%.

In the first 6 months total production was ahead 1.2%, 454,400t (vs. 449,100t), with thinner gauges, used mainly for flexible packaging and household foils, up 1.6% and thicker gauges, used typically for semi-rigid containers and technical applications, up +0.3%, on 2016.

Overall domestic deliveries, up 1.9%, show steady improvement. Export activity remains more challenging at -4.2% in the first half of 2017. This is a marked improvement compared with -13% in the previous year, reflecting the better figures shown in Q4 2016. ///

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Inspiring food and drink in foil

— At every interpack EAFA celebrates the diverse ways aluminium foil helps to bring out the best in so many food and drink products. 2017 was no exception as you can see!

The biggest packaging show in the world, interpack held every three years in Düsseldorf, Germany, is the ideal platform to show off both the creative and practical sides of aluminium foil. The EAFA stand plays host to a series of presentations, all from experts in their subjects, offering both entertainment and education about food and drink using foil.

These presentations not only prove to be highly popular with visitors, but allow our experts to bring some fresh thinking about the value of foil in packaging. Here is a chance to see what you missed or enjoy it again if you were one of our guests ... ///



Bringing out the best in BBQ foods

This very original way to prepare sausage and egg, using alufoil containers, makes it look almost too good to eat. And it tasted as good as it looks – as did all the food our BBQ baron Ed van de Schootbrugge prepared on his grill, using a variety of aluminium foil formats.



A fresh approach to coffee

Our resident professional barista blended aroma and taste to perfection during the show. He was able to use totally fresh coffee thanks to the exceptional barrier properties of alufoil, which locks in all the flavour and aroma until opening.

Molecular marvels

Our expert chocolatier Georg Maughausen used molecular cuisine to create these stunning blue alufoil cones, filled to the brim with his delicious chocolate. A marvellous way to show this confectionery at its very best.



Taste without taint for wine and water

Sommelier Arno Steguweit demonstrated just how well aluminium closures keep wines and waters in their original state, right up to the moment we twist to open the bottle. Aluminium is taste free and taint free, allowing consumers to discover the true flavours and subtle differences in taste of both precious liquids.



Fun with foil, food & drink

Grilling on the wild side

To recognise that game meat, such as boar and roe deer, has become popular again, EAFA has produced an online recipe book which includes useful tips about the health properties of these cuts and how best to keep them in the freezer. Aluminium foil is an ideal partner to help cook these to perfection and store them too.



EAFA teamed up with Ed van de Schootbrugge, 2012 European BBQ champion, to put together a delicious range of barbecue recipes which all use aluminium household foil or foil containers in the preparation and grilling. There are three recipes for each type of meat, including a Sliced Boar Roast and a Back Fillet of Roe Deer with Truffles and Asparagus.



For BBQ lovers wanting to try something different the recipes can be downloaded from EAFA's special barbecue website bbq.alufoil.org

Grillers from all over the world appreciate the many advantages aluminium foil brings to the BBQ. Both foil and containers provide a perfect material in which to cook and wrap the game meat. So get ready to go wild and enjoy these new taste experiences! /// bbq.alufoil.org

Making the case for alufoil food containers

When it comes to food packaging there is probably nothing as versatile as the amazing range of aluminium foil containers, which come in all shapes, sizes and finishes to suit a myriad of applications. This makes them in high demand for the food packaging industry.

To highlight the many advantages EAFA container group has produced a dynamic and information packed brochure, showing just how diverse the applications of these containers can be. In addition a dedicated micro-site, container.alufoil.org, has been added to EAFA's website.

The brochure includes facts, case histories and testimonials in eight key sections:

- Design & Decoration
- Premium Appearance
- Performance
- Sealability
- Multi-mode cooking
- Heat Conductivity
- Hygiene
- Sustainability

Testimonials and case histories have been provided by saturn petcare, Cakees, albfood, Hero, Glaxo-SmithKline (GSK), Rehm Fleischwaren and GoTipster.dk, underlining the food industry's support for this packaging format.

Aluminium foil has a premium look which can be enhanced with coatings, embossing and print to add real impact and brand identity to the containers. Coming in an almost infinite variety of designs, they are a reliable and safe packaging format, as well as stylish and modern in look and feel.

Whether it is for domestic, retail or food service environments these containers and trays offer reliable and flexible options to suit the application. Strength

to weight ratios are excellent and they can be used with confidence in hot or cold conditions. Transfers from one state, such as frozen, to fully heated, can be achieved without the need to transfer the contents – even for microwave options.

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, with the ability to use a variety of lidding materials.

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 facilitating quicker cooking times.

When it comes to resource efficiency aluminium foil containers excel. They are fully recyclable and more than 55% are recycled in Europe. And, importantly, they can 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. ///

For more information visit: container.alufoil.org



Resource efficient packaging: what does it mean?

— *Jean-Paul Duquet, director of sustainability for EAFA, explains how a new report offers a clear definition of resource efficient packaging, as well as highlighting the sustainability benefits of flexible packaging.*

A recent study⁽¹⁾ conducted by ifeu (Institute for Energy and Environmental Research – an independent non-for-profit research institute in Germany) has produced a definition for resource efficient packaging and also a method for assessing the resource efficiency of packaging, using a case study involving a foil laminate pouch.

This study, to some extent, continues the work of another ifeu project⁽²⁾ which was conducted in 2014. This initial study revealed packaging's key role in waste prevention and the need to consider different aspects, other than just the recycling rate, to assess the resource efficiency of packaging and, more generally, its sustainability performance.

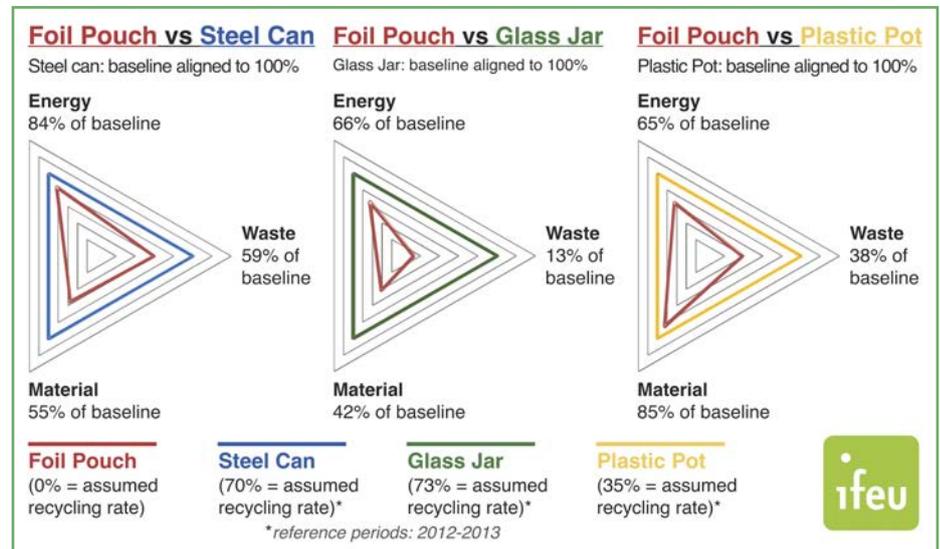
The 2014 report showed that, for food products in Europe, the substitution of non-flexible packaging by flexible packaging could not only reduce packaging waste but also significantly benefit the environment in terms of the impact on climate change and resource consumption. This could be achieved despite a significantly lower recycling rate for flexible packaging.

In the new study, a resource efficient package is defined as a packaging solution which is combining the minimized use of material and energy throughout its lifecycle with the minimized amount of material losses (meaning not recycled).

To assist this definition, a three-metric model was proposed to assess the resource efficiency of packaging:

- **Cumulated Energy Demand** (fossil and nuclear energy) throughout the lifecycle
- **Cumulated Raw Material Demand** (including energy resources and feedstock material) throughout the lifecycle
- **Waste to final disposal** (landfill or incineration i.e. what is not recycled)

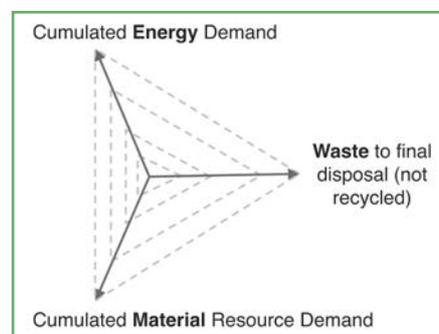
Both the Cumulated Energy Demand and Cumulated Raw Material Demand metrics include credits for recovered materials and energy from recycling or thermal recovery.



Packaging Resource Efficiency assessment model applied to the case of a flexible foil pouch solution for long life 400-460ml pasta sauce compared to alternative solutions

As an example, the study is applying the model to a laminated foil flexible pouch packaging solution for 460ml long-life pasta sauce. This is compared to three alternative, non-flexible packaging systems: a glass jar, a steel can and a plastic pot. The results reveal that the foil pouch solution (taking into account the complete packaging system including also secondary and tertiary packaging) was more resource efficient in all three metrics than the alternative solutions. For the model it was assumed the pouch had a zero recycling rate, as an extreme scenario.

This case highlights the superiority of the pouch solution providing the same functionality as the



Three-metric model proposed by ifeu to assess Packaging Resource Efficiency

other packaging systems (thanks in particular to the absolute barrier property of the aluminium foil layer allowing for long-life conservation) while using far less resources.

Also it must be seen as a worst-case scenario for the foil pouch, as the recycling rate is potentially more than zero. Indeed, recycling solutions for foil flexible packaging already exist (like pyrolysis) and will be further developed. This would lead to even more resource efficiency.

In the move to a more resource efficient Europe and where there is often a choice of packaging solutions for the same function, this study allows for much more robust assessments on the resource efficiency of comparative packaging solutions than only using the widely available recycling rate indicator. ///

⁽¹⁾ "Resource Efficient Packaging" – a study by ifeu (2016) commissioned by Flexible Packaging Europe (FPE), a division of EAFA.

⁽²⁾ "Potential packaging waste prevention by the usage of flexible packaging and its consequences for the environment Resource Efficient Packaging" – a study by ifeu (2014) commissioned by FPE, a division of EAFA.