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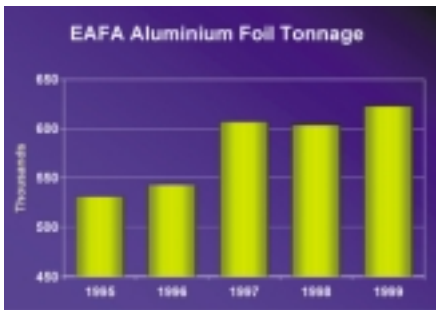
# infoil

news and views from EAFA

## 1999 Aluminium Foil Production up by 3% – another record

The total production of the Roller Members of EAFA for 1999 increased over the previous year and, at 623,000 tonnes, achieved a new record level. Both exports and usage of aluminium foil within EAFA member countries showed a satisfying growth of 3.0 % and achieved the highest level ever: nearly 95,000 tonnes for exports and 528,000 tonnes for usage within EAFA member countries.




During the first quarter of year 2000, order books were generally full, capacity fully loaded and demand was reported to be continuing at a high level.

Approximately 75% of the foil produced is used for packaging, the remainder goes into technical applications such as insulation, heat exchangers etc.

## inside...



European Aluminium Foil Association

**– the international body representing foil rollers, converters and container manufacturers**

**www.alufoil.org**

**eafa@aluinfo.de**

## Alufoil containers – part of today's lifestyle

### Focus on a versatile packaging medium

Alufoil containers are an essential part of the rapidly growing market for time-saving and convenient meals being extensively used for prepared food products of many types. From their original uses as disposable trays for bakery and patisserie products, they have diversified over recent years to bring economy and customer convenience to long-life and 'portion product' sectors once the exclusive domain of glass jars and tinplate cans.

Recent estimates indicate that at around 90,000 tonnes, the amount of metal used for containers is approaching one fifth of total foil and thin strip sales in Europe.

Whilst active product and market development by the container suppliers has driven aluminium foil into new consumer sectors such as premium pet food and dairy dessert products, this success would not have been possible without the natural attributes of the material itself. Alufoil containers offer all the advantages of the metal – its lightness, hygiene, maleability, durability, heat conductivity and wide temperature tolerance from freezing to all types of cooking. Another major factor is their scope for strong and imaginative branding using highly developed surface decoration techniques.

But one of the greatest attractions of foil containers is appreciated only after they have been used – their ready recyclability. Because they are made from aluminium, they can be re-melted with ease to become 'as new' metal ready for another use.

**This edition of Infoil concentrates on the aluminium foil container, its achievements and its undoubted future growth and success.**

*Please note: new e-mail address*

### The Business Card of the EAFA Container Group

Minimum system requirements:
IBM-compatible desktop with
20X CD-ROM drive, Windows 95/98,
Pentium II 160 MHz and
800 X 600 monitor (24-bit 'True-Color')

**If the Business Card has been removed, another can be requested by mail using the Infoil reply card or by e-mail**

*Synergy in action:*

# The successful development of the retortable pet food pack

**The pet food container pack represents an outstanding example in which a niche market has become a core one. It is a case where entrepreneurial co-operation between packaging manufacturers and pet food producers created a successful market.**

In Europe the market for 'smoothwalls' and lids is around 30,000t. About 20% of this goes to meal trays for airline catering, another 20% is used for single portion packs for products such as jam, coffee cream, ready meals and patés. But the largest segment is represented by pet food packs with about 2.3 billion units sold annually.

Fifteen years ago this figure was virtually zero.

Of course, this remarkable achievement did not happen easily and the list of the development challenges the pack had to overcome gives an idea of the complexity involved:

- temperature and pressure resistant lacquers and retortable printing inks
- easily peelable lids coupled with conserve security
- 100% product release
- acceptability by pets and their owners

These criteria had to be met against the background of a constant drive to meet environmental concerns and to achieve lowest cost through:

- source reduction by 'down-gauging'
- reduction of printing costs
- reduction of batch size, cycle times and inventories

This intensive development work was based on a belief that the aluminium foil industry could offer a lightweight, highly cost-efficient and user-friendly pack which would be superior to any alternative already on the market. But it called for close collaboration with the manufacturers of coatings and lacquers, press tool makers, filling machine builders and pet food companies.


*Top quality presentation for premium products*

## The challenges continue

In the years since first introduction there have been various substitutes threatening the success of the aluminium smoothwall container: look-alike steel and plastic containers, glass jars and, more recently, stand-up flexible foil laminate pouches.

Although there appears to be the opportunity for further substantial growth within Europe and even more so overseas, the smoothwall pet food container's share is under pressure. To build its 'second life-cycle' will demand even more imaginative innovation. Every component in the chain must be continually examined for new ideas – specifications and shapes, manufacturing processes, logistics, development technologies, alloys, distribution and marketing.

Perhaps the greatest ultimate influence on the future will be the inexorable shift of decision-making power from product brand owner, through the retailer towards the end-user.

In addition there will be a highly interesting tension between the ever growing concentration of the supply side (prices down) and, on the other hand, the ever growing fragmentation of the end-users' tastes and demands (costs up).

But this is what makes packaging so fascinating: it plays a major role in the orchestra of food technology, consumer trends, distribution, development. And in pet food, smoothwall containers offer an overwhelming marketing and communication impact because the buyer is able to believe in and rely on the promise of quality... since pets cannot be cheated!

## The test of time

One of the earliest trials of light-gauged aluminium containers for food conserves was made in the early nineteen-seventies in partnership with a major food canning company. Although that particular joint venture did not survive, it is interesting to note that sample autoclaved food products packed at that time and stored under normal ambient conditions were opened and laboratory tested five years ago after a period of some 20 years. The food was found to be in a perfectly edible condition.

In the meantime, pet food manufacturers had recognised the pack's marketing potential and the products had arrived on the shelves – easily opened, brilliantly printed and with a variety of shapes – extending the premium end of the market.

*Photographs: Alcan Foil Europe, Ekco Group, Plus Pack A/S, and Lawson Mardon Star*

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# Developing new foil containers

## 'It's a partnership'

The foil container industry is becoming more and more directly involved in the development of new consumer packaging solutions and this close collaboration is paying off for the customer.

Top priority is continually given to the development of consumer-friendly packaging solutions in aluminium foil which protect and promote food products yet are competitive at the local market level. Steen Haustrup, EAFA Container Group Chairman, has strong feelings on this aspect of the business:

"Pack design and presentation are of crucial importance when the customer comes to select the product. We therefore attach the utmost priority to close customer dialogue. This is the quickest way we can learn of new market demands which might change the requirements imposed on our products and service.

"In close co-operation with our customers, our R&D departments are continually working on new projects. We consider this co-operation a partnership designed to create optimum packaging solutions."

**Some results of partnership developments are illustrated here (from the top):**

**Paté container** Improved container with attractive printed surface and optional snap-on reclosable lid with label. Clear film sealing membrane and modified atmosphere packing (MAP) option for long shelf life.

**Dessert container** This 340 ml shape exactly fits a matching glass bowl and is designed for deep-frozen desserts.

**Paté containers** Bright aluminium finish 250 ml to 750 ml with outer print for enhanced brand identity.

**Pie container** Available in 145 ml, 210 ml and 340 ml sizes with exclusive rim design. The perforated base reduces the baking time by 8-10%, improves product quality by preventing condensation giving an even browning and crisping effect.

**Single portion to family-sized trays** *Top of picture:* Single-portion container very suitable for 'Meals for One' such as lasagne etc. *Centre:* Specially designed to contain 1 kg of food with sufficient space for accompaniments Suitable for prepared recipes such as pasta dishes. *Foreground:* Capacity up to 1 kg. Efficient on the filling/packing line: The top-out measurement is identical with that of the standard menu tray series. The two types of container can therefore be used on the same production line. The special ribbed design of the sides enhances the rigidity of the pack.

# SOURCE REDUCTION

## Alloys and tooling design are making material savings possible

Like other alufoil products, containers are getting steadily lighter.

Because the raw material is a significant proportion of the price of alufoil containers there is always pressure to use less metal. This is limited by the need for the container to perform satisfactorily on the customer's production line and in the retail distribution chain.

However, thanks to the development of alloys and significant developments in tooling design, the necessary rigidity can be achieved at lower gauges. For many products, manufacturers have achieved reductions of up to 32% in recent years

This has been driven by a combination of factors: pressure on food manufacturers by retailers for greater consumer satisfaction, competition between container manufacturers, and concerns about the best use of the World's resources.

**It is gratifying that each of these elements have been, to a greater or lesser degree, satisfied by the aluminium foil container manufacturers.**

**With any material other than aluminium, these savings would have been very difficult if not impossible.**

*Designed for each other. The simplest shapes can provide the strongest sales appeal*

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# INNOVATION

## New pack with printed peel-off alufoil lid for Jensen's Pâté

Known and appreciated in many countries, Jensen's Pâtés now have a new presentation which saves two-thirds of the weight of materials used in the tinplate can it replaces. The new pack represents a great improvement over the previous format. Opening is very straightforward and safe using the new EasyPeel" lid, and the presentation is improved.

The new pack is a deep-drawn 180$\mu$m aluminium can base made by Impress Metal Packaging with internal lacquer and external offset printed design. The gravure printed lid material, supplied by Alcan, is sealed onto the lid perimeter ring by Impress. The assembled lid is then double-seamed onto the can base on the packing line prior to autoclave sterilisation.

*Old and new: now much easier to open and just one-third of the packaging material weight*

By using and combining the advantages and techniques of today's materials, forming and printing, Impress has brought to Jensen's Pâté 21st-century levels of presentation, consumer convenience and source reduction without compromising the well-known standards of product excellence of the manufacturer, Redlefsen GmbH.

## Five aluminium foil packs among the WorldStar winners

Among the 190 latest WorldStar Awards were the following foil-based packs:

- the 1999 EAFA Trophy-winning un-embossed alufoil lids by Teich,
- a 'ring-pull' easy open aluminium foil can closure developed by Nestlé in collaboration with Rotoflex-Quix Flexible Packaging and Hulett Aluminium, South Africa,
- a foil laminate unit-dose dispenser pack for two-part dental adhesives submitted by ESPE Dental AG of Germany,
- a Listerine Antiseptic Mouthwash alufoil laminate sample pouch designed for distribution inside newspapers, submitted by Glenroy Inc. of the USA and
- a high barrier foil laminate flow wrapped and blister packed Strepsil Throat Lozenges by Boots Healthcare International, UK.

## New Givenchy 'π All-Over Spacial Shampoo' in alufoil sachet

A novel departure from convention by Givenchy comes in the shape of a dry body shampoo presented in a 150ml silver and white aluminium foil laminate pouch featuring a screw-capped spout supplied by Georg Menshen GmbH & Co. KG with a silver metalized cap to coordinate with the pack design.

The shampoo is a dry powder which the user wets by adding water through the spout to achieve the 150ml capacity and to re-constitute the product – an example of 'space-age' weight-saving and minimal but elegant packaging.

*Information by courtesy of Creativ Verpacken*

# RECYCLING – the German example

***Dirk Lehmann of Deutsche Aluminium Verpackung Recycling GmbH (DAVR) reports:***

## Recycling of aluminium packaging – a story of success

The lid of a yoghurt pot is turned into an oil sump and a coffee pouch starts a second life as part of an engine block. What may at first sound improbable is now state-of-the-art. Consumer products with a short life span, such as aluminium packaging, are fed back into the material cycle, recycled and transformed into products that have a long life span. This has been made possible by the comprehensive collection system operated by the Duales System in Germany coupled with mechanised sorting using the eddy current technique and modern pyrolysis processes.

### Accurate sorting

When the Duales System was introduced about nine years ago, it laid the foundation for today's mass collection and sorting of packaging waste and materials recycling. The used packaging is sent to modern, highly automated sorting plants, which separate materials into their various fractions. Used aluminium packaging does not only consist of packaging with a high aluminium content, such as cans, pet food trays or yoghurt pot lids, also easily separated are laminated materials and very small items such as blister packs for pharmaceuticals or coffee pouches.

When compacted into bales this mixed packaging is a valuable raw material for the secondary aluminium industry. It is also of high quality because the alloy content is almost equivalent to that of primary aluminium.

### Pyrolytic processing

The mixed packaging is shredded before further processing. It is then subjected to pyrolysis at about 500°C to separate the aluminium from any paper, plastic, lacquers or contents still adhering to the mix.

Once the pyrolysis process has been started, the gases produced contain sufficient energy to sustain the process and to operate a high-temperature waste-gas cleaning system, without the need for any additional energy input.

The resulting bare metal can be directly recycled in a melting unit. Carefully combined use of packaging and industrial scrap enables high-quality die-casting alloys to be produced, e.g. for car components.

The high-quality durable products thus produced from consumer products with a short life span demonstrate aluminium's exceptional recyclability. Packaging materials containing aluminium have shown that they are materials "par excellence" and fulfil the political requirements concerning high-quality recyclability of packaging materials and sustainable conservation of resources.

*Metamorphosis: Yesterday's used aluminium packaging, tomorrow's vehicle component.*
*(www.lavender-diecast.com)*



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