



Another record year in prospect

The first half-year EAFA sales statistics for 2000 show a very healthy situation in the European foil industry. Compared with the same period in 1999, the total tonnage is up by 6.8% – 349,000 t.

Members have reported that they have been running at full capacity due to domestic market demand. This has led to a slight decline in exports – down by 2.2% at 50,000 tonnes. Taking this into account, the six-month picture of sales within the European 'home' territory of EAFA foil roller members, at 299,000 t, represents growth of 8.5%.

EAFA President, Philippe Royer, comments: *"This continuing picture of growth is convincing proof that aluminium foil is bringing benefits to our customers."*

"Obviously, this validates the message of the industry about the practical and environmental value of alufoil, but it does not imply that EAFA and its members can be complacent. The challenges of other materials and of incomplete product understanding remain, and the association will continue to work in order to combat these."

PHARMACEUTICAL PACKAGING

Health-care products:- a continuing growth market for aluminium foil

Recent PIRA study predicts a strong growth for blister packs

According to a new report from *PIRA International, 'The European Market for Pharmaceutical Packaging', the pharmaceutical industry spent an estimated \$3.2 billion (EUR 3 billion) on packaging in 1999, with blisters (added to strips and sachets) accounting for one quarter of this amount. In terms of materials, metal accounted for 26% by value.

The popularity of the blister pack with its push-through foil closure is easy to understand.

Based on current trends, pharmaceutical sales are expected to double in value during the period 1998 - 2007, with sales volume growing more slowly at an average annual rate of 5%.

The European aluminium foil industry is fully equipped to play its part in this scenario of increasing demand.

As medical and pharmaceutical science progresses, so must the packaging solutions essential to the task of delivering drugs to the point of use. The aluminium foil industry has invested extensively in the standards of product quality,

reliability and hygiene needed to meet the ever-increasing demands of this important sector. Aseptic condition materials and medical standards of hygiene in the production of printed and coated foils and laminates are now in place matching the highest standards required by pharmaceutical companies.

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Alufoil – 'a major role in Strepsils packaging'

Dr. Chris Davenport,
Senior Packaging Development
Manager, Boots Healthcare
International comments
– see inside



This is the most convenient way of packaging tablets and capsules. It is compact, easy to carry and to use; yet the product is individually and completely protected until needed.



Two examples of foil industry investment: (Above): The Pharma Center of LM Neber, Switzerland, works under the extra hygienic conditions required by the pharmaceutical industry.

Top levels of hygiene and atmosphere control are also in place at the special 'clean room' facility at the Antonio Carcano SpA plant in Italy.



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- New format for EAFA packaging awards
- INNOVATION:
– anti-counterfeiting
– recent packs
- Aluminium's comparative price stability



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

Alufoil sachet combines convenience and hygiene



This three-chamber aluminium foil sachet enables the protection of a two-part dental preparation to be securely stored until needed.

Without the need to open the sachet, the two constituents are pressed together and mixed when required. They are then squeezed into the third chamber where it is withdrawn using the applicator already held in place as part of the pack. The specially designed sachet combines:

- secure protection of the product until required,
- a pre-measured convenient dose size in the correct proportions,
- the facility to mix the constituents without exterior contact or exposure to the atmosphere, and
- an applicator hygienically protected ready for immediate use.

The pack, marketed by Espe Dental AG, Seefeld was a prize-winner in the 1999 German Packaging Competition.

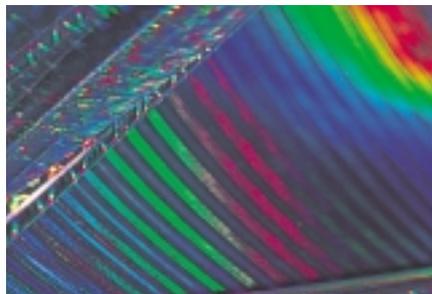
Anti-counterfeit measures use foil's reflective surface

With the rapid globalization of markets and the use of the Internet to sell all types of goods around the World, the job of ensuring that leading brands and high value products are protected from counterfeiting has never been more important. This is particularly true in the marketing of sophisticated pharmaceutical products. The health of patients can be at risk from 'look-alike' fake products sold at a fraction of the price of the genuine article.

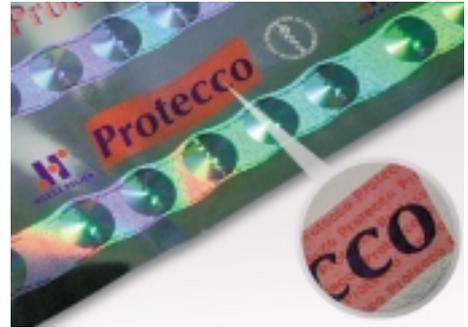
Specialists in the foil converting business have introduced answers, some making use of the naturally reflective surface of the metal.

Last year, Lawson Mardon Wheaton introduced a 'pattern-shifting' or moiré surface effect suitable for the laminates used in collapsible tubes and sachets. The high level of capital investment in the special machinery and alufoil laminates involved limits the number of sources of the material and will virtually eliminate copying.

Another surface treatment recently launched by the Lawson Mardon Group also uses the reflective metallic foil surface. Using a specially dyed film, a 'colour-shifting' effect is created through the defraction of the light which strikes and returns from the metallic surface. Showing green or red dependent upon the angle of view, the laminate is very difficult and expensive to replicate.



Top of page: Background micro-text is virtually invisible. Above: Iridescent effects. Below: Clean production at Hueck Folien.



A unique secure design using a mix of media

Hueck Folien of Germany, has launched a range of anti-counterfeit options designed for use singly or in combination. They cover:

- fluorescent inks – invisible until exposed to UV light,
- iridescent reflective effects,
- micro text – hardly visible to the naked eye and extremely difficult to reproduce,
- high precision printing,
- guilloche patterns – familiar in the printing of bonds and security documents, and
- holograms.

These measures, marketed together under the name 'Protecco', combined with the special qualities of a bright alufoil surface offer the pharmaceutical pack specifier several ways to beat the international 'brand bandits'.

A neat combination

This aluminium foil folding blister pack has eliminated the need for a protective outer carton. By using a printed board cover, to which the blister tray and a folded leaflet is attached, a new, convenient format has been created at the same time as saving packaging materials.

The Swedish parent company of Astra GmbH of Germany, user of the pack, received a German Packaging Competition award for this innovative concept which has advantages not solely for



pharmaceutical products. A similar format is in use to ensure the freshness of Haribo 'Vademecum Bon' sweets (see Infoil 7).



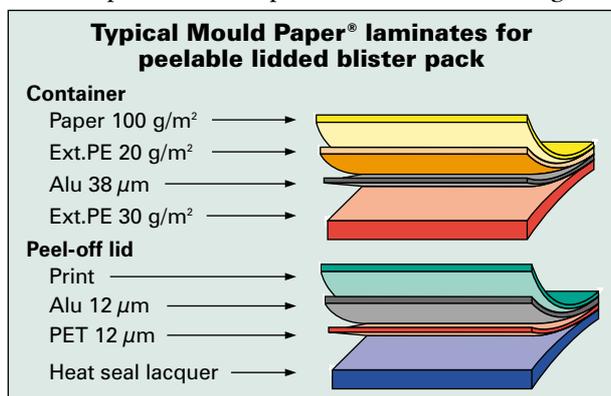
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Now all-laminate blister packs

'Mould Paper[®]' is the name covering the blister system introduced by VAW Flexible Packaging. It stands for a fresh approach to the materials used for push-through blister packs. The company has developed a successful range of options which promise substantial cost savings and other positive advantages. Extensive studies into the characteristics of alufoil/paper laminates, extrusion coatings and trials have involved many different specifications.

The laminate structures incorporating paper are more economical, and the aluminium thickness is reduced by up to 50%. The pack is completely opaque (more safety for small children and complete tablet protection), and the pack has a 'friendlier' feel. Physical properties can be controlled through the choice of layers in the upper and base components of the pack.

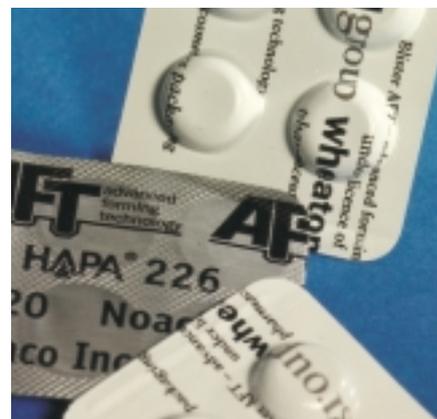


SOURCE REDUCTION New blister forming technique saves material

Thanks to a new two-step forming process developed by algroup Wheaton, machine suppliers Horn + Noack GmbH of Karlsruhe, Germany, now supply a compact blister tray format which allows more precise shaping of the individual cavities to fit the tablet. The tablets can be positioned in closer proximity to each other, so reducing the size of the blister tray. This, in turn, offers to reduce the size and amount of any protective carton, and the outer bulk packaging.

The process called Advanced Forming Technology (AFT) is based on the ability of an aluminium foil-based laminate to be cold formed – in contrast to the vacuum/thermo-forming used for plastic films. Even with the advantage of cold forming which permits the use of the

aluminium foil barrier on the tray side of the pack (trademarked 'Formpack'), the cavity so created has been until now up to three times as big as its thermo-formed equivalent. Now, using the new two-stage technique, the size of the cavity can be more closely controlled, so minimising the wasted space and reducing the blister materials needed by up to 18%. The 'knock-on'



savings of outer carton and bulk packaging materials can be of even greater importance.

Above: the closer spacing of the blisters saves space and therefore materials.

'Alufoil – a major role in Strepsils packaging' :

– from front page

Dr Chris Davenport, Senior Packaging Development Manager, Boots Healthcare International (BHI) comments:

“As with many pharmaceutical products, aluminium foil plays a major role in the stability and packaging presentation of BHI brands such as Strepsils, and the market-leading analgesic Nurofen.

The Strepsils sore-throat lozenge, a licensed pharmaceutical product, has been produced by Boots for over ...

FACTS ON FOIL

Why aluminium foil for pharmaceutical packaging?

Alufoil has been an established part of pharmaceutical packaging for many years – why does it continue to find so many uses?

Mechanical properties

A flexible, thin material which can be cut, formed, embossed, coated, printed or laminated without difficulty. Varying alloys and tempers – malleable for deep drawing, hard temper for its 'bursting' characteristic – provide a choice of properties to suit the application.

Ease of use

To adults, alufoil presents no problems of product accessibility, even to elderly people. Blister packaging in 'Peel-push' formats with laminated lidding can be created if child security is a consideration.

Barrier protection

Total security of barrier against moisture, light, micro-organisms, oxygen and other possible contaminants.

Hygiene and safety

Aluminium foil can be supplied in an aseptic condition, it supports no micro-organisms, is safe in contact with most chemical preparations (or can be suitably coated), contains no substances of danger to health. Printed directions on either side of the closure alufoil lid can ensure the correctly timed use of the medicament – further safety built in.

Environmental acceptability

As with all forms of aluminium packaging, alufoil makes a positive contribution to our environment by

protecting products and so reducing waste of materials and energy. Once used, the aluminium in household waste can be recycled, or its energy content recovered efficiently. The latest techniques in pyrolysis are now enabling the maximum recovery of aluminium from used packaging.

(More information is available on the EAFA website.)



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Pharmaceutical packaging

40 years, and is market leader in many territories worldwide. For the majority of markets, Strepsils are produced in convenient individual 'push-through' blister packs using hard temper aluminium foil lidding material.

In BHI's Thailand factory, however, Strepsils have been packaged until now in high cost and inefficiently packed vacuum-sealed tins, necessary for the tropical climates of most South-East Asian markets. Tins are now being replaced by an innovative pack design based on standard blister packs which are flow-wrapped using hermetically-sealed high barrier alufoil laminate. This proved to be the most cost-effective solution to meet the exceptional moisture barrier requirement in these markets. The new packaging format allows greater efficiency and use of the



Thailand factory, as well as a very significant material cost reduction. This innovative system, developed with the help of Danisco Flexible, was designed and piloted in the UK and launched in Singapore. It has been recognised with both Bronze Starpack (UK) and WorldStar awards for 1999."

Aluminium revealed as a comparatively price-stable material

Independent study proves that prices of other packaging raw materials are more volatile.

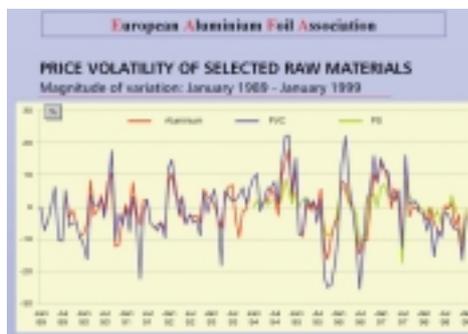
Like all raw materials, aluminium, used in many forms of packaging varies constantly in market price dependent upon the economics of demand and supply. Now, calculations based on an independent diploma thesis on this subject demonstrate clearly that, far from being the 'bad boy of the class' as it is often categorised, aluminium is comparatively price-stable.

The study, covering HDPE, LDPE, PP, PS, PVC and sulphate pulp as well as aluminium, during the period from January 1989 to January 1999, was carried out at Düsseldorf University using published raw material price data.

The main findings are:

- In comparison with all the other materials, aluminium prices had decreased at a proportionately faster rate.
- The prices of all raw materials studied have fluctuated simultaneously over a period of several years.
- The magnitude of these price fluctuations has been less in the case of aluminium compared with the other materials studied.

The detailed comparison of figures taken at six-monthly steps is demonstrated by a series of charts showing comparative prices in money terms (DEM) and in percentages taking



January 1989 as 100. By superimposing graph lines representing the various materials, a clear picture is revealed showing the relative price stability of aluminium.

A summary of the findings and a full set of the charts can be downloaded from the EAFA website Reference Library. The information will be updated on a six-monthly basis starting this year.

EAFA Website : a fresh graphic design

EAFA promised that 'alufoil.org' would be a living medium. So it is proving to be.

In order to make the site even more 'user-friendly', a fresh graphic layout is now in place. The new design enables visitors to go more directly to subject headings, and there is increased exposure of the latest press releases. Also, visitors can now download and print their own copies of Infoil (in English only).

Why not take a look today?

'FOIL PACKS OF THE YEAR':

- a fresh format for the EAFA Foil Packaging Trophies



From now on, EAFA will be awarding trophies every year for the best aluminium foil packs. This fresh format has been chosen to replace the biennial and triennial cycles which have been the pattern until now.

"Packaging is a fast-moving picture," comments EAFA President, Philippe Royer, "and we decided to introduce a competition format which better reflects the pace of change."

"To start the first Awards in this new cycle, we are now inviting packaging companies, designers and brand owners to send in examples of aluminium foil-packed products introduced to the market, consumer, wholesale or industrial, within the period starting January 1999 and up to the closing date - 1st May 2001. Judging will take place during the Summer, and we will announce the winners next Autumn."

"All types of pack involving alufoil will be welcomed - flexibles, lids, tubes, liquid cartons, and foil containers for all applications. Prizes will be awarded to those foil packs considered by a panel of experts to be the best in their field."

Full details of the entry requirements, judging criteria and closing date, as well as downloadable entry forms, are available on the EAFA website. Winning packs will be publicised to the specialist press throughout Europe and other parts of the world, on the EAFA website, and in this newsletter.

Entry is free, and submissions are now invited. Full details are on the website now!

(or fax +44 1902 398987 to receive details by mail)



- the international body representing foil rollers, converters and container manufacturers
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