

Alufoil and Recart revitalise retail shelves

ALUFOIL is a key component in Tetra Recart, Tetra Pak's packaging solution developed to challenge canned foods and currently gaining in popularity for upmarket 'fresh' products as an alternative to the traditional can.

Aluminium provides oxygen and light barriers to the packaging material structure and ensures the 24 month shelf

life. "This is extremely important when the can is the standard to which we are compared," said Erik Lindroth, business development director at Tetra Recart AB. "Aluminium is also necessary to allow the induction heat sealing of the pack.

"It would be extremely challenging to reach the line capacity of 24,000 packs/hour without alufoil," he added.

Tetra Recart now has four installations operational across the world for a variety of applications. The latest of these is for Sainsbury in the UK which, at the end of last year, introduced Tetra Recart for four varieties of chopped tomatoes and one new Premium chopped tomatoes offering.

In a notable development, the first Tetra Recart line using a 'Hot fill' process is being operated by Sainsbury's co-packer Columbus. This means that tomato products are not fully retorted but rather pasteurised at lower temperatures resulting in excellent product quality.

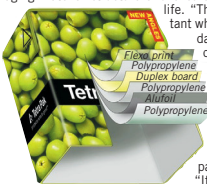
At the launch Sainsbury's canned food buying manager Les Rowse said, "Tetra Recart packs don't need a tin opener to open, and fit better in the cupboard and fridge, but the real advantage is that tomatoes kept in these packs simply taste better."

Lindroth explained, "What we offer our customers is the possibility to revitalise slowing product categories and brands through offering an attractive platform of product innovation."

Among the other installations are Bonduelle in France for vegetables, Hormel Foods in the US for Stagg ready meals and Del Fuerte in Mexico for vegetables.

There are a number of other customers at various stages of implementation.

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Keep cool at interpack

Visit EAFSA in Hall 11, stand D11

To keep you refreshed at interpack 2005 this chewing gum blister pack is produced using a 20 micron foil hard temper from mfc aluminiumfolie merseburg. Hueck Folien produced and printed the alu-blister foil using a PET heat resistant lacquer with a PVC/PVAc copolymer primer and heat-seal coating.



for freshness

Sugarfree
Spearmint
Chewing Gum

Foil first for freshness and health

The buzz words in the European food market are convenience, snacking, health and wellbeing, where possible married to consumer demands for pleasure and indulgence.

The health and wellbeing trend is governed by a growing attention to health, an ageing population aligned with an increasing life expectancy, busier more stressful lifestyles, and consumers taking control of their own health rather than visiting the doctor or pharmacist.

The sector includes a number of different definitions, the most usual of which are:

- Functional foods – these will have had something added to the product such as vitamins and/or minerals
- Nutraceuticals covers functional foods but also includes vitamins and herbal remedies
- Health – low fat, fat free, low-carbohydrate, low salt, reduced sugar, and any number of slimming aid products

According to a report from Aroq Limited (www.just-food.com) the current global functional foods market is estimated to be between US\$7bn and US\$63bn, depending on sources and definitions, but is expected to grow to US\$167bn by 2010, representing about 5% of total food expenditure in the developed world.

Professor Felix Escher



One of the most important attributes of packaging in the health & wellbeing market is that it should protect the nutritive and medicinal properties of the product; and aluminium foil is well placed to fulfil these demands.

For example, the earliest market for nutraceutical products with health giving benefits was probably the single daily dose market created by Japan's Yakult Honsha, and quickly taken up by Danone (Actimel, Zen, and Danacol) and Unilever (Benecol). All these products feature aluminium foil lidding and both product and foil continue to thrive as the market expands.

"Aluminium foil plays a prominent role in modern food packaging. The mechanical physical and chemical properties of aluminium foil such as barrier effect, deadfold, and food contact ability make it particularly suit-

able for health products," states Professor Felix Escher, Professor of Food Technology at the Institute of Food Science and Nutrition at the Swiss Federal Institute of Technology (ETH) Zurich.

Other major attributes include:

- Light and strong
- It can be formed and converted into complex shapes
- Excellent corrosion and temperature resistance
- High thermal and electrical conductivity
- Recyclable without a decrease in quality
- Good decorative possibilities

All of these qualities make it a valuable material for the health and wellbeing sector.

Applications include aseptic cartons, pouches, wrapping, bottle capsules, blisters, laminate tubes, lids, trays and containers.



Foil tops for lidding

Foil-based lidding can't be beaten when it comes to providing the barrier properties needed for a variety of margarines and dairy products like desserts and yoghurts.

Laminated lidding materials from Alcan Packaging have been chosen for a number of applications in the healthy foods markets, including Deli Reform Active Margarine; Actimel Danone; Froop Müller and Zott Joghöl low-fat yoghurts.

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Bonduelle first introduced a range of beans packed in Tetra Recart in Italy in 2003. Based on the excellent product quality (as good as home-cooked) and the convenient pack format, the introduction resulted in an increase in market share for Bonduelle in Italy and led to the



launch being extended last year into Germany, Austria, Switzerland, Benelux and France.

Introduced in 2002, when it was awarded an EAFA Alufoil Trophy, Tetra Recart is claimed to be the world's first retortable carton package for food.

It is capable of containing any kind of premium food that cans or jars usually accommodate and the company feels that it offers the value chain an alternative with genuine advantages.

"In short," says Lindroth, "we usually summarise the benefits in five words: convenient, safe, efficient, competitive and innovative."

It is Tetra Pak's declared aspiration to support customers in developing product concepts and recipes that work effectively with the package, the market and other specific demands.

Pouches answer call for freshness



Cartons take on 'wellness' mantel

Soups, juice and dairy markets are no exception when it comes to capitalising on the quest for "wellness" products and aseptic cartons are finding a number of new applications.

The 1000ml SIG Combibloc standard with combitwist closure, for example, is being used for a range of bio-milk products from Candia, the leading brand on the French milk market.

Absolute barrier for products that are rich in vitamins and minerals, and contain no artificial preservatives is absolutely essential and in aseptic applications the aluminium foil ensures the carton is both airtight and provides a barrier to light.

Additionally, SIG's premium image slimline CombitwistSmall carton with easy open and reclose Combitwist screw cap is being used for Actilife "Healthy Plus", one of Migros' strategic private labels.

The Comifit carton is also being used for a range of Wellness active and vital drinks from Pro Health Vital Drink GmbH marketed under the "fit for fun" slogan, as well as a range of healthy vegetable soups with a "new taste dimension" from the Campbell's Erasco German brand.

Huhtamaki Ronsberg foil laminated pouches are answering calls for freshness, nutritional value and healthy eating in markets as diverse as children's snack foods from Andros, Knorr Active soups, and even pet food pouches from IAMS.

The Andros Pocket Pomme Nature pouch is designed to encourage children to enjoy healthy snacking.

The 100g pouches feature attractive 6-colour rotogravure graphics and a tamper evident spout and cap closure. The PET/ALU/OPA/PE pouches provide

maximum barrier properties and are hot filled using Form-Fill-Seal technology.

The Knorr range of dried Active soups contain 30% of the daily needs of vitamins B, C and E per portion, plus essential fibre content and come in single serve gravure printed PAPER/ALU/PE laminated pouches.

Even pets are joining in the healthy eating craze with a laminated PET/ALU/PP retortable stand up pouch being chosen by IAMS for its Select Bites range and Nutro for Natural Choice products.



Sensitive yoghurt

The natural health-giving properties of Aloe Vera are being used by Emmi for its one-off novelty Aloe Sensitive Yoghurt and Aloe Sensitive Drink. Both products have a fat content of only 1.1% and contain 15g of Aloe Vera in the yoghurt and 25g in the drink.

The yoghurt features a 38 micron alufoil lid lacquered with PS and printed in 4- and 5-colour gravure from Nycoc Flexible Packaging.

The Aloe Sensitive Drink features a laminated lid called Cap Steril which is manufactured from a 50 micron foil laminated with 12 micron PET and gravure printed in two colours.

Sun shines on sports enthusiasts

Providing convenience, pleasure and indulgence as well as healthy credentials are these attractively shaped, recloseable sports and energy drinks pouches for CAPs from Capri Sun.

The material is provided by Alcan Packaging Italia and is manufactured

from a PE/ALU/PET laminate, gravure printed in six colours to give a high quality effect at point-of-sale.

The isotonic drink contains the vitamin L-Carnitine that helps maintain endurance, while the energy drink comes with added taurin, guarana and caffeine.





Chocolate PAVOT gets visual appeal

Alcan Packaging Singen was awarded a Trophy for a sophisticated, wafer-thin wrapper used for the special chocolate candy Chocolat Pavot from Storck.

The candy was developed to celebrate the company's 100th anniversary and the packaging had to complement the delicate product which was finished with a trace of wild poppy.

The candies are individually wrapped in a very thin aluminium foil and red tissue paper which, like the petals on a poppy, can be gently unfolded. They are packed in an octagonal collapsible box which serves as a decorative tray once opened.

"This is a really emotional pack that reflects the chocolate taste sensation in the pack," said Professor Büren.

The wafer-thin foil is coated with a special protective varnish and embossed with the Chocolat Pavot logo.

Delivered by Alcan Packaging Singen in 10cm coils, the aluminium foil is combined with the tissue paper and cut to size at the production facility.

Cool Lifestyle

Impress Group's microwaveable alu-bowl for ready meals with easy peel closure won a Trophy for what judges believed to be "a system that hits today's lifestyles".

The pack was adopted by Dreistern Konserven in Germany for its range of six Hot & Cool ready meals which extends the use of alufoil packaging to a new group of consumers.



Complete with a plastic over-cap for use during heating and a fork for eating, the pack provides total convenience to satisfy appetites of all ages.

As Professor Büren said, "The products are presented in an attractive format which can be eaten in the home, in the office or wherever there is a microwave available to hand."

The bowl is produced by Impress in Moelan, France, using six colour pre-distortion printing technology to create a distinctive appearance on the shelf. The Easy Peel closure is also printed in six colours giving an exceptional print quality and is supplied by Impress in Cuxhaven, Germany.

This project demonstrates how expertise and excellence within the Impress Group can be harnessed to provide integrated packaging solutions and create opportunities for customers, says the company.

Produced using existing seaming and sterilising systems with over-pressure, Dreistern-Konserven was supported during the commissioning process by the Impress Technical Service Team, enabling a short concept to market development time.

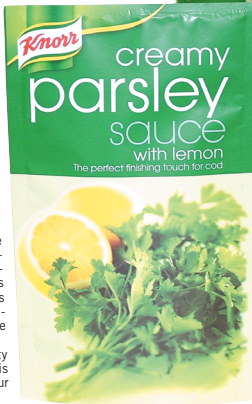
Excellence in innovation

Excellence in innovation, protection, user convenience and environmental responsibility are core aspects of the entries from the five winners of an Alufoil Trophy 2005. The competition has rewarded packs across a wide range of applications and proven that alufoil is a key element of the packaging mix.

"Although a long established material, these awards highlight the fact that alufoil is as relevant to modern packaging solutions as it has ever been," said Professor Ingo Büren, of the University of Stuttgart. "Indeed, some forms of packaging would not be possible without it." Independent judges examined the 25 entries to the competition and were impressed by the standards achieved.

Pouches stand out from the crowd

A stand-up pouch for wet sauces from



Unilever Bestfoods in the UK won an Alufoil Trophy for Huhtamaki Ronsberg. Knorr Creamy Parsley Sauce was launched last year in the PET/ALU/OPA/PP gravure printed and mottac-quered pouch which offers excellent shelf stand out and protection.

The sterilisable matt lacquer provides excellent optical characteristics and provides less spots and less visible creases in the overall pack.

The high quality print design is achieved by 6-colour gravure printing.

Judges felt that the combination of technical and decorative properties demonstrated in the pack meant that stand up pouch technology had been moved forward once more.

Huhtamaki Ronsberg has been developing stand up pouch laminates for many years and today's structures ensure attractive appearance, optimum barrier properties, high puncture resistance, sterilisability and convenient handling.



Hueck Folien and Cofresco's joint trophy winning entry, Quick Alu.

Normal alufoil reflects the oven heat by more than 90% which prolongs the roasting process, but Hueck Folien's black coated alufoil absorbs the oven heat and conveys it directly to the foodstuff inside. Meat can be roasted up to 30% faster than previously which also means less energy is used in the cooking process.

"This is a very convenient and energy saving solution bringing high-tech developments to the kitchen," said Professor Büren.

Climatic protection

Protective Packaging received an Alufoil Trophy in this year's competition for the ProtectAtainer, a barrier foil ISO Container Liner which allows users to switch from individually packed products to bulk shipping.

In practice, this allows an increase in shipping volume from 15,000 kilos to in excess of 20,000 kilos.

Nanotechnology aids quick roasting

A technical breakthrough is claimed by Hueck Folien and Cofresco for its joint trophy winning entry Quick Alu, a black coated alufoil used to market Topfits FixGrill (container) & Fix-Brat Alu (household foil) from Cofresco Frischhalteprodukte. By using nanotechnology, the company has come up with a solution to fix a black coating on alufoil and to make this physical effect available for heat applications on foodstuffs.

The black coated alufoil allows quicker roasting of meat in the oven and for added convenience it keeps the meat juicy while preventing the oven from getting covered in fat-splashes. Judges felt this was a very innovative solution to a long-standing technical challenge.



The aluminium foil laminate provides total climatic protection for any product that may be susceptible to damage caused by moisture, oxygen, UV light, temperature extremes and odour transfer, and liners can be tailored to suit individual customer specifications.

The judges acknowledged the excellent protection qualities of the ProtectAtainer and felt that the concept offered worthwhile improvements in the supply chain.

It also offers environmental benefits by using less material. And, as Professor Büren puts it, "Climate doesn't count anymore – packaging offers full protection."



INNOVATION Japanese style

Japan is internationally renowned as one of the pre-eminent centres of packaging innovation and alufoil packaging developments are no exception.

Among recent developments is an easy open stand up pouch used by Nippon Lever K K (Unilever) and Procter & Gamble to refill rigid shampoo bottles. The concept can



also be used for powders, pastes, liquids and granules. The pouches are made from a PET/ALU/NY/PE film laminate.

Alufoil has also been adapted to make it easier to cook the traditional Japanese dish mochi, a sticky rice cake. This

sweet brown rice is very glutinous, making it difficult to prevent it sticking to conventional cooking trays.

However, the cooking process has been made easier through the development of a silicone-coated aluminium foil release tray.

The shaped tray is manufactured from 70-80 micron coated aluminium foil and features a series of perforations in the base of the tray to aid cooking and browning on both sides of the product.



Maximum performance, minimum use of material



Just one of the environmental credentials for stand up pouches is their extremely low packaging weight which can be as much as 90% less than alternative packs. This also means that they are both easy and cheap to transport. Felix cat food pouches from Huhtamaki Ronsberg are just one example.

The use of sustainable packaging materials is just one aspect of society's quest to ensure the welfare of future generations.

The lightness & unique product preservation properties of aluminium foil lead to significant savings in food waste, materials and energy.

Production and manufacturing techniques have led to significant down-gauging resulting in a 20% decrease in thickness in 10 years at the same time as maintaining or even improving machineability and performance characteristics. All of which provides increased productivity and added value to the conversion process.

The exceptional barrier properties of aluminium makes it possible to transport and store food for long periods without energy-demanding refrigeration, while also preserving nutritional value and food quality.

Just one example of a market trend where aluminium foil's lightweight and protective properties have been used to good effect is in the continuing move away from rigid to flexible packaging. Aluminium can be recycled repeatedly at a fraction of its original energy cost and modern separation techniques mean aluminium foil in household waste can be extracted and recycled.

It is suitable for both separate and multi-material collection systems according to national and local conditions.

The energy

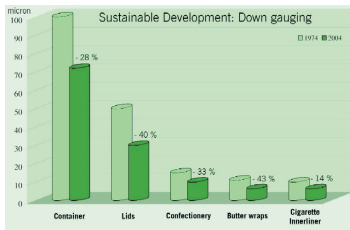
content of foil laminates can also be recovered by thermal treatment.

Collecting and recycling empty aluminium packaging makes sound environmental sense. One of the latest examples is a new alliance for the collection of used aluminium coffee capsules forged in Switzerland by Nespresso and The IGORA Co-operative for Aluminium Recycling. The aim is to encourage the collection of aluminium coffee capsules at Nespresso partner outlets, local authority facilities and recycling companies.

Thanks to its dense network of collection points and success in the collection of aluminium drinks cans, pet food trays and tubes, the IGORA recycling organisation is in a good position to support and complement the collection system for used aluminium Nespresso capsules.

But it is not just the aluminium that is recycled, the separated coffee grounds are converted to fertiliser at a composting facility.

Nespresso aims to establish a network of more than 1,000 collection points and increase the collection rate from over 50% to over 60% by the end of 2005.



Celebrating 30 years in pictures

Aluminium foil has a long and successful history in packaging with the foil structures of today having been developed to meet the continuously evolving needs for consumer convenience and brand owners' demands for real product differentiation.

It now takes only a very thin layer of aluminium foil to transform a flexible pack into a product fit for the 21st Century.

Foil has the ability to provide not only a total barrier to block out light, moisture and aroma, but also to provide the decorative sparkle and interesting shapes needed in today's retail environment.

To celebrate EFAA's 30th birthday here is a pictorial look at just a few examples of how alufoil has transformed the world of packaging – vacuum packed coffee; decorative lidding for yoghurts and other products; stand-up pouches; shaped pouches and sachets; and non-stick and energy saving household foils and ready to roast trays.



Coffee of today and yesterday: High barrier foil laminates have transformed coffee packaging – Amcor Flexibles



Pouches and sachets in many different shapes and sizes are meeting ever more sophisticated consumer demands. Pictures: Smoozy – Amcor Flexibles; spirit sachets – Alcho-Pac; Heinz pouches – Alcan



Yoghurt lidding 1974 and 2005

Lidding materials have benefited from the technical advances in print as well as the ability to produce ever thinner foils that add decorative sparkle as well as the all important barrier properties. Even foil tabs that help break the vacuum between the aluminium closure and glass jar are possible today – Alcan Singen



Constantly evolving manufacturing techniques for foil trays, baking foils and shaped containers mean it has been possible to create many different shapes and applications for consumer markets.



Alcan Packaging Singen

Nicholl Food Packaging



How it used to be ...



Foils for cooking now come ready-prepared for BBQ vegetables and other products – Alcoa USA



Winning ways with wine

Alcoa Closure Systems International has begun commercial production of Vino-Lok, its "glass on glass" closure system for wine bottles which features an aluminium over-cap and neck sleeve to give mechanical protection and tamper evidence.

Alcoa will supply the closures from its facility in Worms, Germany, to several wineries in Europe. Applications include premium wines for Lufthansa, one of the world's leading airlines.

The Vino-Lok closure, which looks like a decorative decanter stopper, is made with rubberised O-rings to provide a sterile seal. The Vino-Lok "Selection" is also being manufactured in the US under the name VinTegra.

The heat is on

The search for the ultimate in self-heating technology continues with news of an innovative pouch development from EPOCA, of Belgium, and its partner KSP Technologies, of Korea.

Featuring an aluminium layer, the complex structure allows the self-heating of a variety of liquids in individual portions of 100-150ml. The system is already being used in Asia for herbal teas which are consumed at between 35° and 38°C. However, EPOCA believes that a prototype that reaches temperatures of up to 60°C and meets the demands of the European market is about six months away.

The heating mechanism is activated by a button on the side of the pouch that creates a chemical reaction. Applications are likely to include soup, coffee and tea. The pouch is expected to feature a centrally positioned pour spot and recloseable cap.

Alufoil sales hit all-time high

Shipments of aluminium foil reached a record high in 2004 with deliveries reaching 822,350 tons, an increase of 1.1% over the previous year (811,400 tons), according to EAFA statistics.

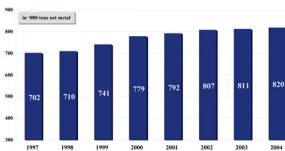
The growth figures disguise an even better picture when the ongoing practice of down gauging is considered.

Deliveries were driven as much by exports as by sales within EAFA regions*.

Commenting on the economic outlook president Bill Morris said: "We expect this trend to continue in 2005."

"The level of demand for aluminium foil especially for export outside the EAFA region underlines the global leadership of the European foil industry in terms of quality and competitiveness."

Aluminium foil Deliveries 1997 - 2004



*Countries covered: E.U.F., Armenia, Bulgaria, Czech Republic, Hungary, Russia, Switzerland, Turkey

EAFA goes from strength to strength

The inauguration of the Rewinder Group representing 11 household foil manufacturers and the announcement that a further six new members have joined the association as EAFA celebrates its thirtieth anniversary brings total membership to 123 companies.

The association has also made great strides in geographic coverage and now represents 23 countries across Europe including new members from Armenia, Bulgaria, Croatia, Czech Republic, Hungary, Slovenia, Turkey and Russia.

New EAFA president Bill Morris said, "The past 30 years represent an era of remarkable and rapid evolution in the European market including the accession of new Central and Eastern European countries to the European

Union. EAFA has played a pivotal role in assisting its members to adapt not only to these fast-changing and challenging markets but also by helping to accelerate technical advance in foil rolling and converting."

The Association's groups are:

- Converter Group - 71 members
- Container Group - 17 members
- Roller Group - 24 members
- Rewinder Group - 11 members

Interpack 2005

Exhibiting with Gesamtverband der Aluminiumindustrie in Hall 11 Stand D11, EAFA will present its complete list of services. These will include its Alufoil File series, a dossier on alufoil applications; information on the Alufoil Trophy 2005 winners, and the work of its specialist groups.

Tops for Tassimo

Kraft Foods is using die cut lids from Teich for its Tassimo single-serve instant drinks system. The partially embossed die-cut lids are UV-flexo printed in between 3-6 colours and extrusion coated.

The co-extruded heat sealed lids have to meet stringent demands including producing an unpeelable seal against the PP pot at minimum retort temperatures of 121°C. Both the coating and UV inks used are totally solvent free.

