Winning entries focus on more convenience and a better environment

The most important competition for innovation and new technological advances in aluminium foil, the Alufoil Trophy 2019, once again attracted a strong field of entries. In total nine awards were made across the five categories, including a discretionary award for overall excellence for one outstanding product. The Alufoil Trophy is an annual event, organised each year by the European Aluminium Foil Association (EAFA).

The judges, led this year by Laura Fernandez, senior packaging technologist at Marks & Spencer, noted strong social elements running through entries this time, particularly in terms of convenience for the consumer and social or environmental aspects of the product development. One example of these themes is an alufoil lid with the capability to emboss braille – offering information to shoppers with poor vision. Another enables sensitive pharmaceuticals to be used safely in very humid and tropical areas of the world.

"We were very taken with many of the entries working effectively on more than one level. So while it was clever technically, or offered energy or material savings, there were also other aspects which made it special, such as easier opening or with the potential to reduce food waste. In particular we should mention the discretionary award winner, an intelligent and ‘connected’ aluminium wine closure which simply takes this device and its functionality to a new level," Ms Fernandez remarked.

"Another winner was not from the packaging sector, but was an outstanding entry in the category of Resource Efficiency. It clearly demonstrated better efficiencies and reduced consumption in energy recovery rotors, made possible by very clever use of alufoil," she continued.

Speaking about the awards Guido Aufdemkamp, executive director of EAFA said, "Again we see aluminium foil manufacturers and converters stepping up to, and meeting, the challenges of an increasingly socially aware and sustainable environment. At the same time they are addressing the real needs of consumers for smarter and more convenient packaging. The Alufoil Trophy is a very effective way to highlight how the aluminium foil sector is leading such developments," he explained.///

Aluminium foil deliveries from Europe hit record levels again

For the third year in a row aluminium foil deliveries from European rollers ended the year by reaching a new record, with an uplift overall of 3% compared to 2017. This was due largely to sustained demand from overseas markets as well as steady consumption in domestic markets, particularly for thinner gauges, according to figures released by the European Aluminium Foil Association (EAFA).

Overall deliveries were 942,500 tonnes against just over 915,000 tonnes the year before. Thinner gauge foils added 4.1% year on year, while thicker gauges rose by 1.1% annually. Total domestic deliveries were stable in this period, while exports continued the trend seen throughout 2018 with an increase of more than 25% overall.///
Outstanding alufoil containers
— Pet food and vegetable containers making a big on-shelf impact

The DecoTainer from Constantia Flexibles and saturn petcare offers modern styling for premium pet food products. The round, alufoil container was designed to communicate a high quality packaging appearance by printing 100% of the surface, fully visible at the point of sale (POS). The design also improves stability while the ergonomic bowl shape supports the easy removal of the contents.

Using rotogravure ensured overall printing quality to further improve the appearance of the packaging. The POS system comprises the round alufoil containers in corrugated display trays, all in a harmonized design, to create a high-end look for consumers. ///

“Here is a pack which takes advantage of its shape and smooth texture, combined with excellent graphics and print, to really jump off the shelf. We felt the overall concept was a great design coup.”
Laura Fernandez

The Shelf Ready Smoothwall Container from i2r Packaging Solutions is designed particularly for ‘ready to cook’ vegetables and is able to stand in the upright position on a supermarket shelf, giving consumers a direct view of the product. Most containers used for this type of packaged food are merchandised on their bases, limiting the product visibility.

By designing a combination of a strengthening structural step below the rim and incorporating internal strengthening ribs which flow into the base of the packaging, there is no need for an outer cardboard sleeve/carton, used for additional product protection. Both design features allow for an additional gauge reduction, resulting in less packaging weight and a further environmental benefit. ///

“Here is a pack which takes advantage of its shape and smooth texture, combined with excellent graphics and print, to really jump off the shelf. We felt the overall concept was a great design coup.”
Laura Fernandez

Modern lid has peel appeal
— New lidding material offers consumers better opening experience

The EasyOpenLid™ from Constantia Flexibles is a newly developed solution for alufoil-based food container systems, used for in-pack sterilization processes, allowing easier and more convenient opening.

It addresses the challenges often identified by consumers using containers with peelable alufoil lids, such as the force needed to open them, torn lidding material during the opening process or their suitability for use by seniors and children.

The PP composition has been optimized to greatly reduce opening forces without compromising the mandatory seal-integrity for sterilisation. The peel-force reduction is significant for all container geometries. In addition, the optimization of sealing parameters, which is applicable for sealing against PP-based trays, is possible. ///

“It is always pleasing to see something which improves the consumer experience. So, for all the judges, this disarmingly simple solution hit the mark when it comes to consumer convenience.”
Laura Fernandez
Sustainable energy and branding
— Enhanced energy recovery and iconic brand makes material savings

Ardagh Group and Orkla Foods Norway have developed a new Hansa Can for Stabburet, which is a printed, easy open, alufoil-based container for a traditional fish fillet pack, with a 10% reduction in material use. Orkla has been producing its popular range of Stabburet mackerel in tomato sauce in cans for many years. The challenge was to reduce pack weight without altering the can format, performance, or iconic printed branding.

The reduction in material thickness from 0.21mm to 0.19mm was achieved without loss of performance during the retorting process. In addition the aluminium lid improves easy opening and, due to the thickness reduction, less force is required to open the lid for added consumer convenience.

“This was a very proactive project, as it required keeping the original pack shape and branding elements as well as being able to maintain production on the existing filling line. The reduction in weight, 10%, is significant and the joint project has been able to deliver a successful, sustainable strategy.”

Laura Fernandez

Hygrosieve® is an innovative lacquered aluminium foil developed by Italcoat, part of the Laminazione Sottile Group. The hygroscopic lacquer, with a molecular sieve effect, improves the performance in terms of selective vapour adsorption/desorption, resulting in a 15% energy saving. The product has been specifically developed for energy recovery rotors.

The aluminium foil is chemically degreased and lacquered both sides with the hygroscopic formulation and anticorrosion primer. The formulation is applied through coil coating. An additional benefit is a reduction of the flow rates of refrigerant fluid, which also contributes to higher efficiency of the rotor.

“This was a completely different entry from the usual packaging and end-consumer oriented products. The technology shows a clear and significant saving in energy and demonstrates just how alufoil can be used to great effect outside the packaging arena.”

Laura Fernandez

Protection and convenience combined
— New blister pack improves protection for antibiotic

A joint development by Amcor Flexibles and GSK, the Formpack® Dessiflex Ultra for Augmentin® replaces a glass container with a new blister pack, offering enhanced protection for this antibiotic, which is very moisture sensitive. The desiccated patient blister pack combines a Formpack® Dessiflex Ultra Blister System with a specific lidding foil.

Not only did the judges recognise the protective properties of the new blister, but remarked on its convenience for patients, compared with the previous solution. Exposing tablets to moisture when a bottle is opened is far more likely, as are breakages. In addition, due to the specific colour (green) of the Dessiflex product contact layer, it is far harder to counterfeit.

“This pack works well on a number of levels. So the blister ticks a lot of the boxes and met GSK’s criteria to protect operators and patients.”

Laura Fernandez
Reaching new markets and consumers

— **Lid embossing breakthrough and ground-breaking hermetic seal**

The Braille Embossing Lid, an advanced aluminium foil lid manufactured by ConSeal, with patent pending technology, has been specifically developed for vision-impaired people. In addition, it guarantees to industrial manufacturers the easy separation of stacked lids on the line.

Through the application of an adjustable, innovative stamp on the punching machine, the braille reading system is applied directly onto the aluminium foil lid. Developed for dairy product lidding, these manufacturers now have the possibility to inform the visually impaired about details of their products, with variable information for each product in the range. ///

“From a technical standpoint it is very challenging to put such embossing on a thin lid, such as this one, so the judges gave it high marks for that.”

Laura Fernandez

Selig Group has developed a unique sealing technique, called GlassFuze™, using aluminium foil as a key material to create a hermetic seal to glass containers. This is the first and only induction heat sealing technique for an alufoil membrane that provides a complete hermetic seal that withstands liquid and high oil content substances, says the company.

The use of the aluminium foil is key to the process. Not only does the foil create a barrier to oxygen and moisture, it also heats up to create the actual seal. Without the use of aluminium foil, this hermetic seal would not be possible. ///

“This development has the potential to open this sealing technology to a whole new market segment for liquid, oily and fatty products.”

Laura Fernandez

Switching on the bottle

— **New connected closure offers multiple benefits**

start a one to one relationship with consumers. This new intelligent technology has been integrated in a WAK aluminium closure, which can also carry brand personalisation.

The NFC chip allows any bottle of wine to become a “connected bottle”. Positioned in the cap, it sends a signal to enabled mobile phones, offering four potential benefits. The wine owner gets marketing data acquisition and logistics track & trace, while the consumer receives authenticity certification and direct engagement with the brand. ///

“This closure really stood out in every category it entered, as it offers everything from consumer engagement – providing great marketing opportunities – through to product protection – with its security features – and it is a major technical innovation.”

Laura Fernandez