

PKN ARTICLE

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<http://www.packagingnews.com.au/food/an-inside-look-at-zipform-packaging-s-facility>



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Zipform Packaging recently hosted a virtual tour of its manufacturing site in Perth, WA, giving insight into its manufacturing processes and showcasing its latest technical developments and innovations. Jan Arreza reports.



Top form at Zipform

ZIPFORM Packaging is a sustainable company focused on increasing the use of fibre as a functional packaging material, and its local manufacturing site produces rigid composite packaging for food and non-food markets in the region.

In March, Australian Institute of Packaging members were privy to a virtual tour of Zipform's BRC grade AA accredited manufacturing site in Perth. Through the tour, participants gained a better understanding of Zipform's processes and solutions, delivered on the region's only linear formed composite pack manufacturing line.

In the fully automated manufacturing process, initially, the material is fed at the front end of the line in four constituent layers: a food-grade liner, two layers of coreboard and a printed layer. The layers have a water-based glue applied and come together with an initial heat seal formed along the length of the body before the pack is formed on a mandrel.

The packs are cut to length and fed into the top roll forming and paper bottom insertion with an induction sealing process creating a hermetically sealed pack. The packs are then robotically palletised, strapped and stretch wrapped prior to despatch to the customer.

FUNCTIONAL AESTHETICS

Zipform composite packs use more than 90 per cent paperboard content with a paper base and wall structure incorporating an integrated printed layer, which delivers both functional and aesthetic benefits of composite materials with multiple printing options available to promote the customer's brand.

"Our production line has had a few iterations and is the only line of its kind in this region," explains John Bigley, Zipform CEO.

"The process is highly automated and the three footprints that are currently on offer can be produced at any height between 46mm and 230mm – two being circular (73mm and 99mm diameter) and the third a non-round shape, which offers both inbound and outbound logistical benefits due to the volumetric efficiency of the non-round pack versus its cylindrical equivalent."

This innovative forming process of producing hermetically sealed packs means Zipform's potential customer base is very broad and the company has worked with a wide range of products such as dairy, deli, nutraceuticals, milk powders, nutritional powders, sauces, ready-made meals, cereals and beverages.

Offering greater flexibility, the packaging can be printed through

any printing process from digital, which provides the opportunity for lower run lengths for promotional or start-up volumes, to flexographic or offset for larger volumes with established requirements.

Aside from the detailed look into Zipform's manufacturing process and operations, the company also showcased its many innovations, both the ones just recently entering the market and those that are in the final stages of development.

David Kilpatrick, co-founder and R&D, technical, innovation and quality director at Zipform, puts these innovations into two categories – the closures provided with the finished pack, and those related to the structure of the pack itself.

INNOVATIVE SOLUTIONS

First up is Zipform's innovative rPump solution for pump style delivery packs, where the primary composite pack is supplied for filling and closing, using both the reusable connecting neck assembly and the reusable liquid pump assembly for retail or food service. It is also supplied with a membrane top closure or rigid paper/film closure as a refill pack.

Key features include the recyclability of the primary pack and the reusability of the neck assembly and



pump, versus a traditional plastic pump pack, along with its ability to be applied to all tooling footprints.

"We saw the value in the pump itself as being something that we should try and reuse because of the difficulty of recycling them, seeing as it typically includes five or six components," Kilpatrick explains.

Another innovation of note, considering the amount of chatter going on lately with regards to paper bottles, is Zipform's very own solution in this space. The solution uses a combination of bio-based plastic equivalents and the structure of Zipform's pack.

"It has significant fibre content, higher than the recent releases in this category, with some potential over time to increasing the fibre content closer to 100 per cent," Kilpatrick says.

"We are developing that on the basis that we will have a design available to suit a customer's existing filling process, and we will continue to support trials and on-going development of these concepts."

Other innovations showcased include Zipform's reusable sprinkle over-cap; its suite of ovenable packaging solutions; a new printed layer solution using textured papers; bio-based polymers; and barrier layers with more fibre content. ■

ABOVE: Zipform packs deliver both functional and aesthetic benefits of composite materials.

ABOVE LEFT: The layers come together with an initial heat seal formed along the length of the body before the pack is formed on a mandrel.