INDUSTRY 14-17 JUNE, 2023 ROPAK ASIA SITO

Packaging for Health

Considering clean packaging in the context of enabling clean food, it's an opportunity for all brands large and small to tell better stories and demonstrate that the well-being of their customers is a top priority. That all depends on a brand's customer base though, and how much it values clean packaging. 99

Alina Wheeler, Design Coach and author of Designing Brand Identity and Brand Atlas

In the food and beverage industry, packaging can have both positive and negative impacts on health. Here are some ways in which packaging can influence health.

Contamination Prevention

Food packaging provides a barrier that keeps out pollutants and elements that can cause spoilage or contamination, such as air, moisture and dust.

If done properly, packaging significantly increases the shelf life of food products. To ensure food safety, packaging should be tamper-resistant. Otherwise, it could have serious implications for consumers.

In 2003, Cadbury faced a major controversy when a consumer found worms in a bar of Cadbury Dairy Milk chocolate in India. This incident caused a public outcry and damaged the company's reputation, leading to extensive product recalls and increased scrutiny of food packaging and quality control. As Cadbury is a major household brand that is popular with kids, this had parents very concerned.



The Business World reported that, according to Cadbury's Chairman, a shopkeeper in Mumbai found that an insect in a bar of Cadbury's chocolate was the source of the crisis. It was proposed that perhaps, the chocolate had been stored next to grains and flour, from which the insects moved to the chocolate. The shopkeeper, who supposedly bore a grudge against Cadbury, decided to make the matter public instead of raising the matter with the chocolate company.

So, he lodged a complaint to the health authorities of Maharashtra.

Subsequently, the Food and Drug Administration (FDA) found 'insect infestations' in the Cadbury chocolate bar — there were two dead and one live insect found. In defence, Cadbury issued an elaborate statement to emphasise on its high-quality manufacturing processes of its chocolate plants, and blamed the poor storage conditions at the retailer's end for causing the worm infestation.assured quality and safety that they expect and deserve.













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FOODINDUSTRY

The FDA, however, highlighted Cadbury's inadequate packaging. During those days, Cadbury's Dairy Milk bar was wrapped in foil, which was not sealed. This unsealed foil-wrapped was packed inside a paper packaging that was opened on both ends. So it left the product vulnerable to contamination and mischief makers who wanted to tamper with the chocolate.

Subsequently, Cadbury decided to completely seal the foil that wrapped the chocolate bar, and absorbed the increased cost of upgrading its packaging.

If there's any important lessons to be learnt from this Cadbury chocolate incident, the most important one is that an F&B manufacturer's responsibility of product quality and safety does not end with the product leaving its premises. And packaging is a key aspect of giving consumers the assured quality and safety that they expect and deserve.

Hygienic design for improving the productivity of food processing

16 June 2023 Fee: Free seminar Meeting Room 211 10:00am-12:00pm

Topics covered include how to minimise food safety risks, reduce cleaning costs, increase production time and improve the reliability of the food manufacturing process.

Preservation of Freshness and Nutrition

Packaging can help preserve the freshness, quality, and nutritional value of food. It can provide a protective environment that minimises exposure to light, oxygen, and moisture, which can accelerate the deterioration of food and the loss of nutrients. By preserving food quality, packaging contributes to healthier food choices and reduces food waste.

Vacuum sealing, for example, is a great way to extend a product's shelf life. Food products that are vacuum sealed can have their shelf life extended by up to five times.



Corn that is vacuum sealed can last up to a year. The shelf life of canned corn can be up to a few years. In comparison, fresh corn is best consumed within five to seven days of purchase.

Allergen Alert

Packaging plays a vital role in managing allergens, which are substances that can trigger allergic reactions in sensitive individuals. Clear labelling and appropriate packaging help consumers identify allergenic ingredients and avoid products that may cause allergic reactions. This supports individuals with food allergies in making informed choices and prevents potential health risks.

Portion Control

Packaging can influence portion sizes and help promote healthier eating habits. Pre-portioned packaging, such as single-serving sizes or individually wrapped items, can assist consumers in controlling their food intake and prevent over consumption.

Food Foresight Masterclass

16 June 2023

Fee: 3,000 THB per person Conducted in English Meeting Room 214 10:00am–12:00pm

The world is in a 'polycrisis' of turbulent geopolitics, economics, and environmental stress. Thrilling new tech breakthroughs face obstacles and side-effects. Consumer lifestyles and values are shifting, shaped by concern for wellness and sustainability, and swayed by new perceptions and beliefs.

These disruptive dynamics are transforming the food system. Old mindsets and formulas are stale. The great challenges and potential of the Asian market are becoming harder to address. More than ever, new strategies for food system transformation are needed for competitiveness, well-being and stability of both countries and firms across the region. To seize opportunities, food sector leaders require a new level of understanding and perspective on emerging issues and foresee, shape and act for the future.

Designed for food sector leaders from across the public and private sectors, this Masterclass:

- Highlights emerging risks, opportunities and discontinuities shaping the future of food;
- Draws on insightful food processing and manufacturing sector case examples, with a focus on the Asia-Pacific;
- Imparts key foresight frameworks and techniques, with interactive hands-on application;
- A Future Food Scenario exercise will help delegates chart emerging futures for their sectors and organisations, and develop sustainable plans and innovation priorities for a future-ready competitive edge.

Delegates will receive a Certificate of Achievement, and privileged online access to emerging foresight tools and research.

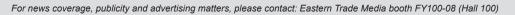
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APFI ProPak Show Daily 2023 is produced and published by Eastern Trade Media Pte Ltd

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Environmental Impact

The choice of packaging materials and their subsequent disposal can have indirect health impacts on the environment and human health. Packaging waste can contribute to pollution, litter, and the accumulation of non-biodegradable materials in ecosystems. Sustainable packaging options, such as recyclable, biodegradable, or compostable materials, can help mitigate these environmental concerns and promote healthier ecosystems.



The Future of Fibre & Renewable Materials Workshop

16 June 2023 Fee: Free Seminar Conducted in English AMBER 1–2, 10:00am–12:00pm

The Austrialian Institute of Packaging (AIP), in partnership with Informa Markets, will be hosting a two hour interactive workshop on the Future of Fibre & Renewable Materials on the 16th of June at ProPak Asia.

The impact of plastic on the environment has become a pressing global issue, and the packaging industry has been slow in addressing community concerns. This growing concern has seen companies and retailers reacting, perhaps overreacting to consumers' attitudes and rapidly seeking to replace plastic packaging with paper/fibre-based alternatives.

Paper-based packaging is typically thought to be a sustainable alternative to plastic since it is understood to be recyclable, biodegradable, and compostable. But does paper-based packaging particularly for food foods outperform plastic in terms of protection, functionality, cost-effectiveness, durability, and even from a sustainability perspective?

During this workshop we will explore the pros and cons of fibre or paper alternatives and what to consider in reviewing packaging options.

Topics to be discussed will include:

- Design factors for packaging selection
- Understanding properties of paper, paperboard and fibre packaging.
- Recyclability issues
- Composability & PFAS
- Innovations in paper and fibre packaging
- Fibre based labels and new innovations in adhesives and labels
- Best Practice Examples of award-winning packaging designs in fibre and renewable materials

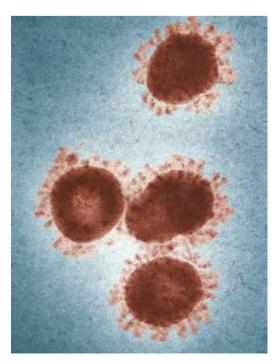
The best efforts have been made to ensure that the information provided for the seminars is accurate. Details such as the agenda, timings and venues may be subject to change as deemed necessary by the organisers and hosts.

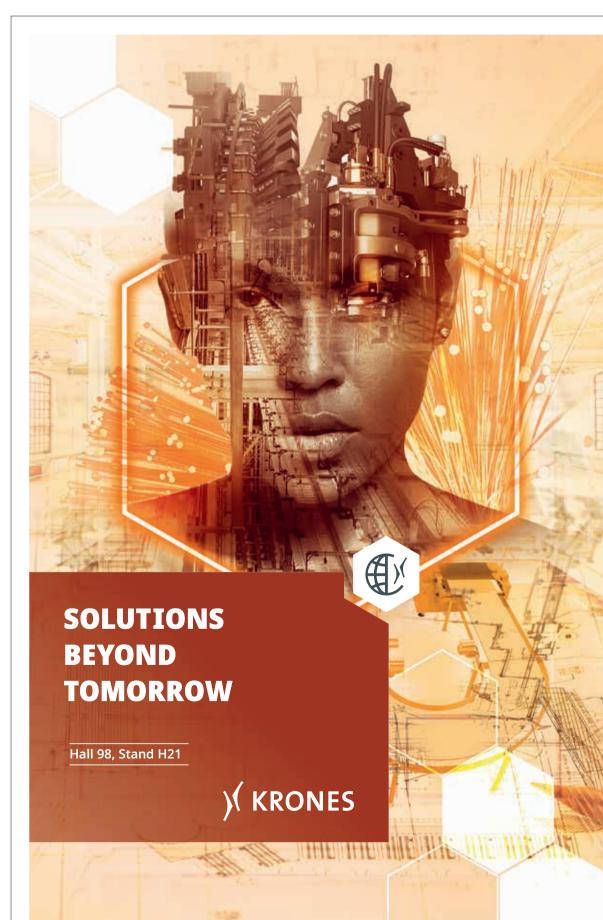


Can Poor Packaging Cause the Spread of Diseases?

In 2020, Chinese health authorities investigating a Covid-19 outbreak in Qingdao said they discovered live coronavirus on frozen food packaging, a finding that suggests the virus can survive in cold supply chains. That was the first time live coronavirus has been detected on the outside of refrigerated goods. The Chinese authorities then issued a statement that claimed contact with outer packaging contaminated by the new coronavirus can cause infection. However, the US Centers for Disease Control and Prevention have said there has been no evidence that "handling food or consuming food is associated with Covid-19". The World health Organization (WHO) takes a similar stand to the US. advising that there is currently no evidence that people can catch COVID-19 from food or food packaging. The WHO considers that further investigation is needed into the origin and spread of COVID-19, including any possible role of frozen food and packaging.

What are your thoughts?



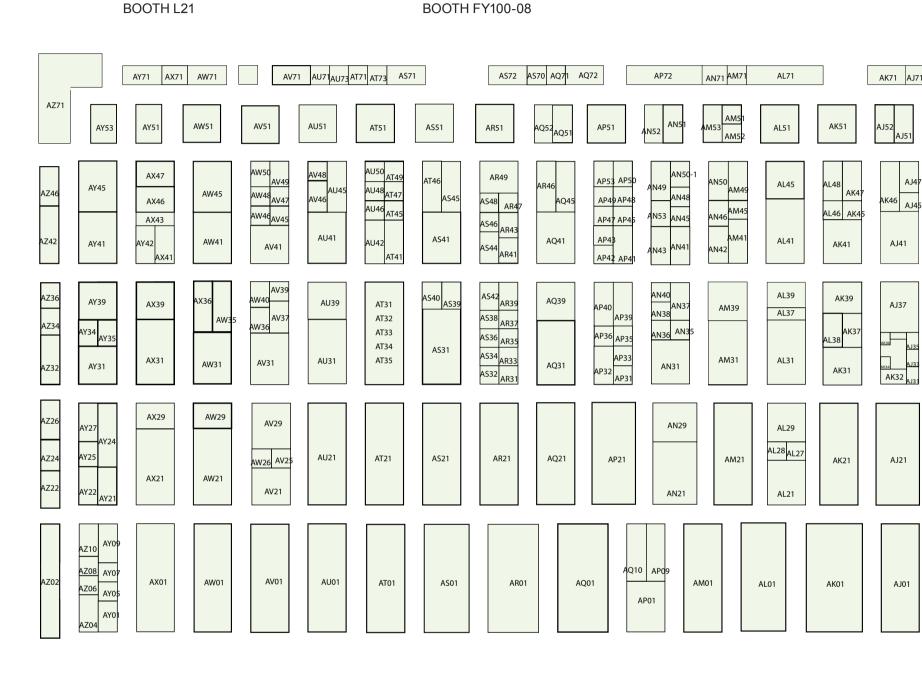








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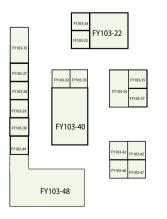




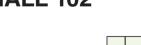
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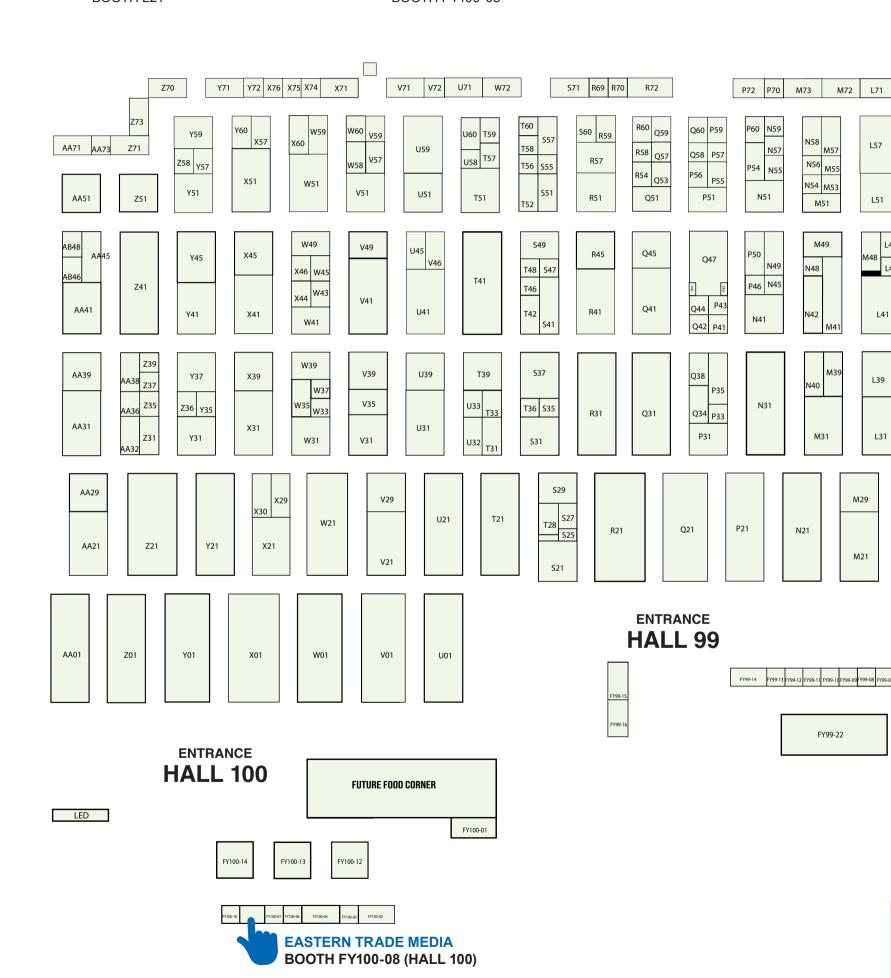
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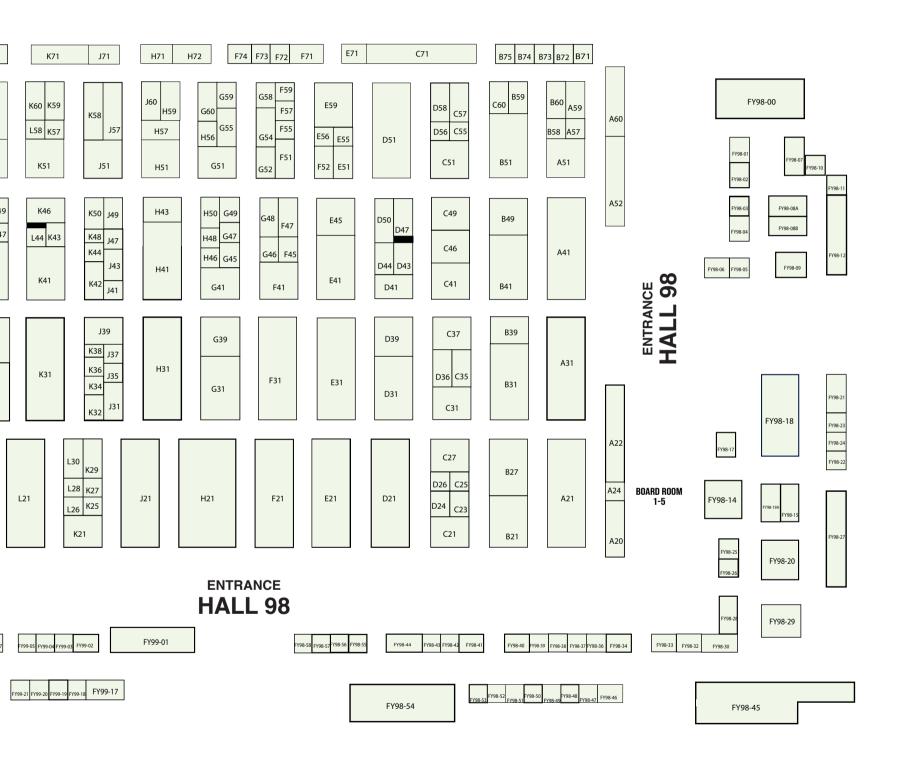
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Feeding Innovation: Food Grade Solutions for the Industry

We catch up with igus to find out more about their innovative solutions for the food packaging and processing industry.



Sustainability and environmental responsibility are becoming increasingly important in the industry. How does igus integrate sustainability into its products and processes and how does it help customers achieve their sustainability goals?

When we first developed high performance plastics for motion, the topic of environmental protection was admittedly not our main focus. We wanted to develop products that bolstered our clients' manufacturing, improved technology and reduced costs. What hardly anyone knows though, is that the industrial engineered polymers igus developed does not use any lubrication and can be fully recycled. This is significant as 27 million tons of grease pollute the worldwide environment on a yearly basis.

Without a doubt, recycling is an imporant aspect for us, and we now reuse 99% of our plastic waste by processing it into granulate material. We then recycle it back into the production process.

Today, we and our clients know that our products do not require lubrication. Eliminating messy, external lubricants means less environmental pollution, less abrasion and less pollution with microplastics. Lesser weight also means less energy required for movement.

We are on track to achieve our goal to be CO2-neutral by 2025 for our buildings and production. All of the electricity we purchase is green, and we are reducing the amount of power our machinery and equipment consume. We are acquiring injection molding machines that are 40% more energy efficient and replacing old ones. We reduced power consumption by 11% year on year even as we increased production hours.

In parallel, we are developing products made from renewable raw materials. With iglidur N54, for example, we have developed a standard plain bearing that can be used universally and consists of up to 54% of renewable raw materials. The biopolymer bearing demonstrates that components can be sustainable and motivates us in our future product development.

There are two more important points I'd like to mention: We launched our "chainge" energy chain recycling program in 2019. Our clients can send us used energy chains (from igus or even other manufacturers) and receive a voucher for a specific value. We separate components

by type and would use them again within the circular supply chain, together with our recycling partners.

The igus group has invested five million Euros in the company Mura Technologie, a company that uses a new technology, HydroPRS (Hydro Plastic Recycling Solution), to convert unsorted plastic waste to crude oil within 20 minutes. This conserves resources with pressure, temperature, and water. Construction of the first large-scale plant started in April 2021, and more and more companies are cooperating with Mura Technology today.

What are some of the key products and solutions that igus offers to the packaging and processing industry and how do they address the unique needs of the food manufacturing in Asia?

The key topics in the packaging, food and beverage industry are diverse. In addition to food grade products, the requirements for highly automated and digitised process chains are increasing. Sustainable products are also becoming increasingly important.

Food grade products are designed for direct and indirect contact with food. From plain or spherical plain bearings, bar stock and energy chains, we have significantly upgraded our new product portfolio. Brand new in the product range is our iglidur A181 material as the new standard for spherical balls: FDA and EU10/2011 compliant, extremely low wear with stainless steel shafts and 25% more cost-effective than with the detectable spherical balls made of iglidur FC180.

In the area of food processing and packaging, we have also developed new products based on the needs of our customers. Our linear innovations allow faster product replacement, more convenient installation, and quiet operation, and it requires zero lubrication.

Our product innovations in the field of gears cover a diverse requirement portfolio for a wide range of applications in the F&B field, from impact and wear resistance to resistance to chemicals and high temperatures. A connection to drylin drive technology and dryspin lead screw technology was also added to our Apiro gearboxes for even more specific automation systems.

Whatever we develop, the key objective remains constant: Cost down, Technology up for our customers, CO2 neutral and EASY to use with zero lubrication in support of our environment.

What do you think are some of the food industry trends and challenges to look out for?

We recognise many changes and challenges in the industry, from growing consumer demand for sustainable products and related packaging, enhanced emphasis on health claims on packaging and marketing, to a vast labor crunch which demands accelerated focus on manufacturing automation.

The shortage of labour in the food and beverage industry is an ongoing issue and will speed up the transition to more automated facilities. The supply of raw materials and available land is often most abundant in rural areas where it can be hard to adequately staff production and packaging lines without bussing people in from a distance. COVID-19 has made this worse; even if you can find enough people to staff a plant, physical distancing prevents them from being there all at the same time.

This is where igus and its portfolio of low-cost automation can help. Automation allows increased efficiency and flexibility of production, improved management of the supply chain and better performance. Entry into the world of automation is often considered to be complex and time-consuming. With Low-Cost Automation we want to prove the opposite. Our goal is to make cost-effective and user-friendly automation solutions accessible to everyone. All of this is made possible by motion plastics, also available with our test before invest approach on our www. RBTX.com platform.

Head down to the igus booth at Hall 98, D41 to see food grade solutions for your needs:

- Dirt and media-resistant, can be used under adverse conditions
- Will not corrode in wet conditions

- No lubrication required, which means no washout of lubricants
- Low maintenance, and no costs for lubrication
- Low energy consumption

The SCARA Robot and the Gantry Robot are assembled from food grade igus components. Both robots can be used for pick-and-place applications for food packaging, as well as for cleaning the conveyor lines used in food processing plants.



The SCARA Robot (left) can be used for pick-and-place applications in food processing plants. For example, the arm can pick up a noodle cake to be placed into a cup before sealing at the next stage. The Gantry Robot (right) can be used for cleaning conveyor lines in food factories.



Fun Facts About Packaging

The creation of the barcode was inspired by morse code



Norman Joseph (Joe) Woodland was sitting by the sand at Miami Beach when morse code came to his mind. He was mulling over a supermarket manager's distraught plea for a solution to move shoppers faster through the queues, as the delays were affecting profits. While deep in thought, Joe dragged his fingers through the sand to create a series of lines, and swept his fingers to form concentric circles. This was why the original barcode was in the shape of a bullseye. It was only decades later that the barcode evolved into the series of thick and thin lines that we're familiar with.

A packaging has around 7 seconds to make an impression



Humans can make swift judgements within a matter of seconds based on first impression. This is why it is crucial for brands to consider their packaging carefully to capture attention, as well as to make a positive impression within this precious time frame. The factors to consider include colour, texture, text, labels, visual appeal and ease of opening or closing. And, considering today's focus on sustainability, some consumers prefer packaging that can be reused. But single use or not, brands should not neglect packaging as it is fierce competition out there, with many other products fighting for attention.

The cardboard box is more than a century old



Most sources state that the first cardboard was invented in England during the 18th century. It was made out of paper that had been glued together. Before this, most used to ship their products in barrels and crates. However, the cardboard box quickly became popular because it was much lighter and cheaper to produce. Today, cardboard boxes are still widely used to ship products. They come in different sizes and shapes, and they can be customised accordingly. Cardboard boxes can also be recycled, which makes them environmentally friendly.

Paper packaging makes a food product look trustworthy and sweet



Studies have found that shoppers prefer food packaged in paper or cardboard as it allows them to easily check if the packaging has been tampered with, which gives them a peace of mind that the food is safe to consume. A separate poll also discovered that shoppers associated cereal packed in cardboard as warm, sweet and comfortable. In contrast, they labelled bags of cereal that were packed in plastic as 'cold'. So it was no surprise that the participants indicated they would prefer to purchase cereals that are packed in paper or cardboard material as compared to another other types of packaging.

The first can was invented in 1812



Peter Durand, a British merchant created the firsts metal can. He was granted a patent for his invention by King George III. The canning process involves sealing food in airtight containers and then heating the containers to kill any bacteria that may be present. Subsequently, during the mid 19th century, the first canning factory was built in the United States. As canning became more widespread, manufacturers were able to use it for mass production of canned goods. This made canned food more affordable and accessible to the general public.

Packaging influences how we feel about food



Visual elements such as logos, colours, words and texture have an impact on what we think about the food packed inside. Research has found that the more text appears on packaging, it can lead consumers to think that the product is healthier and more trustworthy. Green packaging gives the impression that the food is nutritious and natural; red and yellow stimulates hunger and happiness (which is why some fast food chains use these colours); orange gives off an energising vibe; blue exudes freshness, coolness and cleanliness; and white denotes purity, cleanliness and simplicity.