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TokyoPack 2024 Wrap up

23-25 October 2024



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Unboxing Japanese Packaging Designs



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Arriving at Tokyo Big Sight to attend the 30th edition of TokyoPack with 70,711 other visitors, I was looking forward to seeing how many new packaging innovations were being launched in Japan.

As I walked into the first crowded hall, I knew that somewhere in the 720 exhibitors were some standout packs, and I had three days to find them.

The packaging that I saw was a sea of contrasts; from soft plastics and pouches to premium packaging for gifting, moulded paper and fibre alternatives to intuitive and easy to open designs.

The key packaging that stood out for me included the Compression Bottom Reform (CBR) Ultralightweight Beverage Can, POLA Cosmology Skincare tubes, the Paul & Joe Limited-Edition Cat Lipstick, Pure Palm mouldR pulp packaging, the Panasonic Dry Batteries paper-packaging, the TOPPAN Paper-based CUBE PAK, the Kewpie & Ajinomoto Mayonnaise PET bottle horizontal recycling program and the Attack Zero 'Okaeri' refill pouch recycling program.

Compression Bottom Reform (CBR) Can by Toyo Seikan

The ultra-lightweight aluminium beverage can was on the Toyo Seikan stand and stood out to me for its innovative lightweighting technology known as 'Compression Bottom Reform (CBR)'.

The CBR technology is designed to not only reduce the weight of the bottom portion of the aluminium beverage can, but also maintain compression strength. According to Toyo Seikan reforming the can bottom not only achieves high bottom pressure resistance, the technology also significantly reduces the weight. Through CBR technology, the 350 ml and 500 ml aluminium cans have been reduced in weight by 1.5 g (12.8%) and 2.0 g (13.3%), making them the lightest in their respective categories in Japan.





The reduction of aluminium material usage contributes to the reduction of greenhouse gas (GHG) emissions which offers a lower environmental impact for a beverage can. If all applicable aluminium beverage cans used the Compression Bottom Reform technology the company has estimated that greenhouse gas emissions could be reduced by approximately 40,000 tonnes a year. Interestingly, the Compression Bottom Reform (CBR) can was recognised with the Packaging Engineering Award in the Japan Packaging Institutes' Kinoshita Award a couple days later at TokyoPack.

COSMOLOGY

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POLA Cosmology – Designed for Outer Space

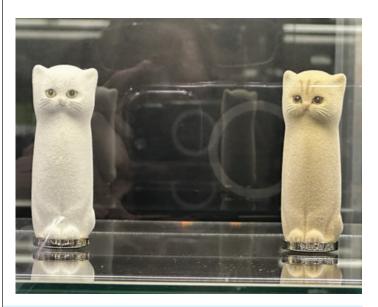
Visiting the 2024 Japan Star Packaging Award showcase area, which is coordinated by the Japan Packaging Institute (JPI), I found numerous packs that were innovative, but the one that was out of this world was the POLA Cosmology skincare range.

POLA Cosmology is a skincare brand that was developed to protect skin from even the harshest of environments, not only down on earth, but also if you were travelling to outer space. Yes, outer space.

The company researched the tight junctions between cells, and discovered how their deterioration can dry out your skin. This insight then led to the development of Cosmology; a new space-inspired moisturising skincare product that has been adopted for use by the Japan Aerospace Exploration Agency.

The packaging design is also fun and offers an opportunity for consumers to feel more positive every day. The squeezable components create human expressions and faces on the tube. As the tube squeezer moves up and down the consumer can create a face, eyebrows are formed, smiley faces and other expressions that create a unique emotional attachment to the pack.

But the design doesn't stop there. The tube squeezer serves a significant purpose as it ensures no product waste, which is an important sustainable packaging design principle.



Paul & Joe Anniversary Cat Lipstick

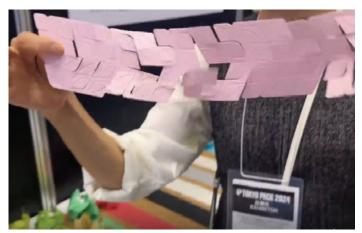
I then stepped into the 'quirky' realm when I saw the Paul & Joe Lipstick. This premium packaging was designed to celebrate Paul & Joe Beauty's 20th Anniversary and was created as a limited-edition collection.

The lipstick holder is not only shaped as a cat, but it also has a velvety fur. As crazy as it sounds, I would never use this as a lipstick. To me this is a showpiece for my dressing room; just like the expensive high-end perfume bottles, and I know I am not alone.



Fibre, Corrugate and Moulded Paper

After visiting numerous stands, it became evident that 'paper and fibre alternatives' were one of TokyoPack's trends. It felt like Moulded Paper solutions were on almost every third stand I visited, as well as e-commerce void filling solutions and numerous 'paper alternatives' to plastic. Some made sense, whereas other packs just made me want to see a lifecycle assessment and ask lots of questions.



PalmMouldR solutions

As I was walking down an aisle, I saw palm trees on a stand with samples of Empty Fruit Bunches (EFB). This made me stop to find out more about the process behind creating the 'PurePalmR Mould' packaging solutions.



Traditionally after the oil is extracted from the palms and made into palm oil the Empty Fruit Bunches are used in bio-based materials such biofuels, lubricants and detergents. EFB consists of approximately 36% cellulose and 31% lignin and is so rich in fibre that it can be used as cellulose-enriched pulp.

However, there is an abundance of palm trees with thousands of discarded and unused EFB rotting on the ground in many countries in the world. PurePalm is taking discarded EFB and valorises the cellulose to create pulp for packaging solutions. PurePalmR Mold is an earth-friendly pulp mould that uses 0% wood pulp, which is developed by Crown Package Co., Ltd.



PurePalmR Mould combines cellulose-enriched palm pulp and traditional board to formulate water and oil resistant packaging. This is an area to watch.



Panasonic Dry Battery Paper Packaging

As soon as I saw the Dry Battery paper packaging on the TOPPAN stand, I knew I had to buy a pack to take home. The hardest part was getting close enough to see and touch the packaging to ask questions, as TOPPAN was one of the busiest stands I have ever seen.

The new Dry Battery paper packaging replaces traditional battery blister packs. This shift to paper not only ticks many boxes within sustainable packaging design principles, but also enhances the consumer experience. Consumers no longer need to use scissors or knives to open the blister pack, as the new paper packaging is easy to open and close.

By moving to the new paper solution Panasonic have not only been able to eliminate single use packaging from the range but have also reduced the amount of paper material used for the new packaging design. This has improved the product to pack ratio and depending on the size of the battery pack the reduction can be anywhere between 38% to 60%. This design feature in turn reduces the carbon footprint of the packaging and optimises the transportation of the products.



TOPPAN Paper CUBE PAK

The TOPPAN CUBE PAK intrigued me as it is marketed as the first 'environmentally friendly' paper CUBE PAK design that offers high water resistance for wet environments such as kitchens, bathrooms and laundries.

The paper in the packaging is FSC certified, and the overall solution uses 55% less plastics than previous packs. It is comprised of two sheets of paper lamination with a thin plastics layer on the surface. The seamless bottom uses a unique structure that ensures no paper edges are exposed at the base of the container and is resistant to water and moisture. TOPPAN'S transparent GL Barrier film is used in the paper lamination process to provide superior barrier functionality. The CUBE PAK can be delivered flat, or inflated to the filling line.

In addition, the pack is classified as 'recyclable' in the paper stream in Japan, as legally anything that consists of 50% paper can use the 'paper recyclable logo' on their packaging and will be sent off for recycling, or reprocessing, via the paper streams.

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The design is compact and easy to fold, which reduces the amount of space the packaging takes up during the disposal process. Consumers can also remove the spouts and dispensers before disposal and reuse them on new packs.

Kewpie & Ajinomoto collaborate to develop horizontal recycling for mayonnaise bottles

A category-specific Product Stewardship program that I discovered hiding in the sea of stands was the new pilot project for consumer recycling of Mayonnaise Bottles between two competitors - Kewpie and Ajinomoto.

The initiative has been designed as a category-based Product Stewardship program between Kewpie and Ajinomoto to encourage consumers to bring their mayonnaise bottles back to the assigned away-from home collection points to be recycled.

An additional objective of the collaborative project is to collate data and knowledge from both companies to better understand how to recycle mayonnaise bottles and to be able to design future technologies to implement horizontal recycling in Japan.



In Japan used mayonnaise bottles are classified as 'burnable waste' and as such are not typically recycled. The new program is designed to take the used bottles, reprocess them and put the material back into future mayonnaise bottles. The Product Stewardship program will then enable recyclers to have access to quality feedstock of PE bottles to ensure that they can develop an cleaner recycling stream for the material.

The Kewpie and Ajinomoto horizontal recycling trial is being run in Tokyo and I look forward to seeing the Product Stewardship Program expand into other parts of Japan.

This important collaborative program is a part of the Japan Clean Ocean Material Alliance, which is referred to as CLOMA. CLOMA is a multi-stakeholder industry program where companies across the entire value chain can work together to reduce the volume of plastic waste in the waterways and environment. CLOMA also encourages the development, manufacture and use of more circular and sustainable plastic materials that offer a lower environmental impact in the country.





The Attack Zero 'Okaeri' refill pouch is one of the achievements from this program, whereby a horizontal recycling program has been developed for soft plastic refill pouches for Attack Zero's liquid detergent by Kao.

The program takes used refill packs collected from the public, and other sources, and using a technology developed by Kao for film-to-film recycling, reprocesses the materials into future refillable pouches.

To recycle the refill packs, Kao have focused on utilising the properties of polyethylene, which makes up about 80% of the composition of refill packs, which means reducing impurities coming from PET, nylon, aluminum foil and ink. They have also removed refill packs incorporating aluminum foil from the product stream at the sorting stage. Kao aims to move to a recycle-ready mono material in the future with a higher level of recycled content used in the new refill packs.

The 'Okaeri' refill pack was developed in collaboration between Kao Corporation, Lion Corporation, Fuji Seal Co, Ltd, Mitsui Chemicals Inc, Prime Polymer Co. Ltd and Tosoh Corporation. The 6x companies have proven that a collaborative approach can create a successful technology for refill pouches.



Japan leads the way in Accessible design

After seeing so many new innovations at TokyoPack I then visited some supermarkets to see what was on shelf in the retail environment. The visits re-confirmed for me that Japanese embed Accessible & Inclusive design principles into almost all of their packaging from the start of the design process.

The thoughtful Accessible & Inclusive designs I saw truly do make life easier for everyone in society. Japanese packaging designs consider the needs of all types of people; visually impaired, people with disabilities, senior members of the community and people that have difficulty opening and closing packaging.

I was so impressed with how much Accessible & Inclusive packaging design there is in the Japanese market; making Japan an exemplar for this type of design.

Japanese packaging also communicates intuitively to the consumer how to open and close the packaging. The packs have arrows, text explanations and multiple tear points and are so intuitive by nature that it makes opening and closing the packaging easy.



Alcoholic Cans with Braille

Another innovative Accessible & Inclusive packaging design feature in Japan is that all Alcoholic beverage cans have braille on the top to indicate to the visually impaired that the beverage they have selected is alcohol. This ensures that the consumer doesn't accidentally purchase alcohol instead of another beverage.



Milk Cartons with notch points

Next time you are in Japan head to the milk aisle. You will notice that some milk cartons have notch points or arc-shaped indentations on the top and some do not. These notch points alert the visually impaired that the carton is a pure milk product. Those without the indentation are not.

No more mistakes with Shampoo & Conditioner

One of the most frustrating issues that many of us face when we are in the shower is working out which bottle is shampoo, and which is conditioner. This can be due to the packaging being similar in colour, shape and design, the font being too small to read on the bottles, or the text being illegible. Well Japanese shampoo and conditioner bottles are designed differently and can be deciphered merely by touching the bottle. Shampoo bottles have textured stripes on the side and conditioner has none. This is also an ideal feature for visitors to Japan who are unable to read Japanese, as well as visually impaired.

Biore Refillable shower gel

I was also told about a new soft plastic refillable body wash pack that is becoming extremely popular in Japan. After searching many supermarkets and other stores I finally find the Biore Kao body wash example. The first thing I realised is that there is no rigid container to refill the product into. The soft plastic pack IS the body wash consumer-facing pack. The packaging also comes with a hook that attaches to the body wash, and you hang it in the shower which in turn enables less product waste. If you are asking, of course I bought one of these packs to bring home to show everyone.





TokyoPack a huge success

After three days at TokyoPack I walked away recognising that there are many packaging technologists in Japan working towards redesigning packaging to lower environmental impacts. The transition to fibre-based alternatives is also great to see and I am keen to see more advancements in mono material packaging and recycle-ready designs in the future.



Japan arguably leads the world in many areas of Accessible & Inclusive Packaging design and Premium Gifting Packaging and there are many Best Practice examples available.

The beauty of shows like TokyoPack is that we can all learn from each other and take ideas back to our own countries.

I must take this opportunity to personally recognise the owners of TokyoPack, the Japan Packaging Institute (JPI) for running such a successful and well-attended edition of the show and I hope to be back again in two years to see what is new.



















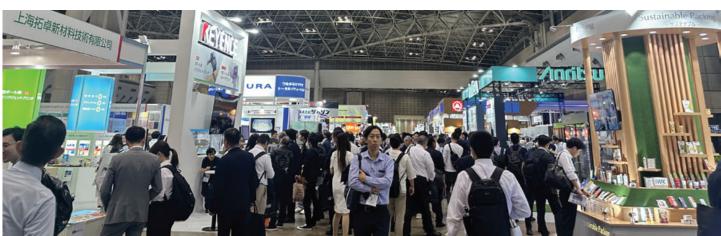








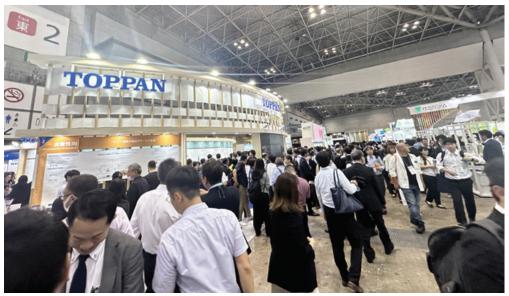












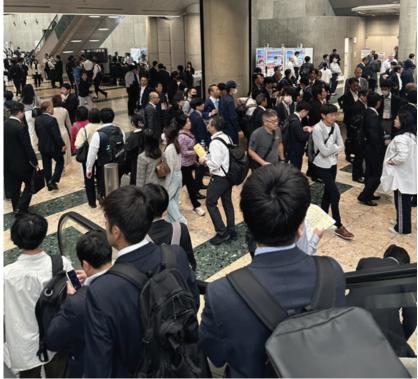


















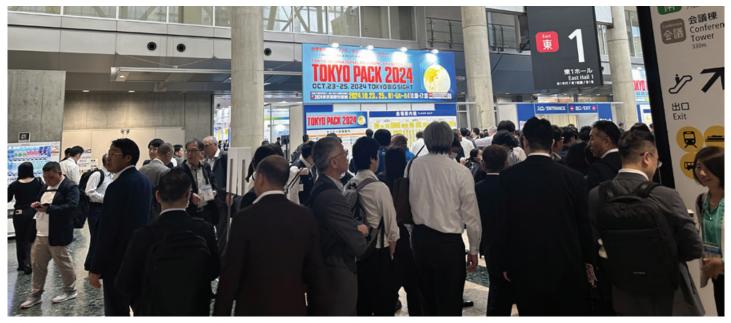








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