

CLOSE THE LOOP GROUP



2022 SUSTAINABLE PACKAGING DESIGN OF THE YEAR - REUSE/REFILL GOLD WINNER



2022 DOMESTIC & HOUSEHOLD PACKAGING DESIGN OF THE YEAR HIGH COMMENDATION



Close the Loop Group

Koh Kerbside Recyclable Spout Pouch Refill Pack

Key Outcomes and Measurement



Label assists consumers to roll easily & place in kerbside bin



Meets 2025 National Packaging Targets & SPG's



1 refill pouch = 5 rigid containers



Refillable



Rolled the 3D shape via Materials Recovery Facility



100% kerbside recyclable

Sustainable Packaging Guidelines



Provide Consumer Education



Optimise Material Efficiency



Design for Recovery



Design for Transport Efficiency



Close the Loop GROUP
Create - Recover - Reuse

Product: Koh Kerbside Recyclable Spout Pouch Refill Pack

Company: Close the Loop Group

Country: Australia

Koh is a new-age, Australian e-commerce brand focused on environmentally-conscious cleaning products. It was vital that their packaging matches their brand ethos and was fully recyclable. As Koh do not sell into physical retail stores, (including the major supermarkets where soft plastics take-back program bins are located), it was key that they had a different solution for their spout pouch packaging than the existing soft plastics recycling program.

With locations in Australia, Belgium, South Africa, and the United States, Close the Loop Group aims to be a market leader in urban mining and extend our already impressive commodity collection offering. Reclaiming hard to recycle materials such as printer cartridges, e-waste, cosmetics, and soft plastic waste will be key for moving towards a circular economy. From the creation of products and packaging with end of life in mind, through to the development of take-back programs for brand owners and Original Equipment Manufacturers (OEMs), Close the Loop Group will provide circular integrated solutions to brand owners and associated stakeholders.

COORDINATED BY



ANZ REGIONAL AWARDS PROGRAM



INTERNATIONALLY ENDORSED BY



EXCLUSIVE ENTRY TO



- ✓ **Using Roll 'n' Recycle program- First ever kerbside recyclable spout pouch.**
- ✓ **Bags are rolled into a three-dimensional shape and then label attached to hold in place.**
- ✓ **Label has been redesigned from previous project to incorporate a complete detachment from the pouch and full roll into the tube shape for easier consumer use and reduced stress on the label.**
- ✓ **Challenge with using 100% mono-polymer for a large volume of detergent liquid (chemical and physical barrier).**
- ✓ **Spout, cap and Label materials are 100% PE to match bag composition.**
- ✓ **Lightweight packaging key for Koh as a predominantly e-commerce brand.**
- ✓ **Refill have provides 5 refills for their rigid spray bottle that customers keep at home- pouch weighs 30g compared to 570g for the same amount of volume (114g per bottle).**
- ✓ **Bulk refill pack provides energy-efficient solution compared to smaller rigid containers & filling.**
- ✓ **Reduced delivery frequency and pack weight saves transport emissions.**
- ✓ **This program is now in the final stages of the Marketing Advisory Committee (MAC) for Australasian Recycling Label (ARL) approval.**
- ✓ **Consumer convenience for disposal at end of life increases participation in recycling and reduces waste to landfill for flexible packaging category.**
- ✓ **These bags not only meet 2025 targets, but exceeds them by providing an avenue for soft plastic packaging to enter household recycling streams without negatively affecting current recycling infrastructure.**
- ✓ **The pouches are 100% mono-polymer Polyethylene (PE), an ideal plastic type for recycling and feedstock into new items at end of life.**
- ✓ **Pouches still feature spout and cap closure to ensure consumers can continue using the pack through the weeks required while keeping product safe after opening.**



In the context of your packaging innovation, what do you see as Sustainable Packaging?

There is no 'one size fits all' solution for sustainability, however Close the Loop Group see sustainable flexible packaging in particular to require materials that can be reclaimed and reused, rather than single-use. Designing packaging for recyclability is key - we must eliminate complex materials structures to ensure the materials used are of a single plastics stream, and hence have a far greater value as recycling feedstock.

This change cannot come at the loss of product protection however, as the team do not want to increase product waste.

Sustainability also relies on accessibility - consumers must have recycling infrastructure readily available to ensure high participation rates and correct disposal behaviours. In Australia, kerbside recycling is available to over 90% of the population. Providing an avenue for flexible packaging products to go through this system is key for reducing soft plastics to landfill.

By changing flexible packaging structures to mono-polymer materials, and then forming them into a three-dimensional shape with the use of the Roll 'n' Recycle label, Close the Loop Group feel they achieved both of the above outcomes with great success.

What would you say were the decision-making drivers (Internal and External) influencing your packaging design?

INTERNAL:

The success of the Roll 'n' Recycle program for their client Brookfarm in providing a world-first solution for soft plastic packaging to go through existing kerbside co-mingled recycling infrastructure opened up greater opportunities to apply the technology to other applications.

Close the Loop Group moved to test and trial the program on various other bag types and sizes, including spout pouches for liquid products. At the same time, the label design and shape for the program had been redesigned to incorporate a complete detachment of the label from the pack and rolling into a complete tube shape, which allowed for easier engagement with consumers as rolling the pack became simpler, and stress on the label was reduced.

EXTERNAL:

Their client Koh is an e-commerce based brand committed to sustainability. Their domestic cleaning products are eco-friendly and chemical-free, and they needed packaging that supported this strong brand messaging. When they approached Close the Loop Group for a 1.5L spout pouch to act as a refill pack for their bottles, it was clear that using a mono-polymer pouch structure was the best sustainable option for them. Applying the Roll 'n' Recycle label to the pack to provide a kerbside recyclable solution for Koh was also a key value add for the brand, as their products are delivered directly to their consumers rather than being sold in physical retail stores where soft plastic take-back collection bins are located.

What benefit does this new design offer your business and your consumers? Why is the pack more sustainable?

Previously designed spout pouches for large volumes of liquids (especially domestic cleaners) have required multi-laminate structures to ensure correct chemical and physical barrier properties. Close the Loop Group have been able to design the Koh Spout Pouch using only a specialised mono-polymer PE/PE structure, removing the need for other polymer types typically found in this type of packaging (including Nylon and Polyester (PET)).

The current return to store program has been put on hold, and this system still requires consumers to collect and bring-back their packaging to supermarket retailers. Offering a kerbside solution that is accessible to more consumers Australia-wide provides greater convenience, by eliminating the need to collect soft plastics at home and then take them back to store. It also benefits brands that are not ranged in major retailers, like Koh.

Kerbside recycling will increase the uptake in the recycling of soft plastics for consumers, while allowing the mono-polymer materials to be processed and separated into the correct plastic streams. This provides a better feedstock for recycling and greater opportunities to reuse the material into new products. The current soft plastics take-back program does not offer this differentiation of polymers, and rather contains mixed polymer types grouped together which limits the use of these materials for recycling and how they can be made into new products.

The Koh pouch meets 2025 Waste Targets by being 100% kerbside recyclable, while contributing to the re-use category for domestic products by acting as a refill pack.



What volumes of materials, packaging and waste have you saved by designing this new packaging?

Did you do this through changing materials, lightweighting, recycled content, making the packs recyclable or reusable?

As this was a new product for Koh, Close the Loop Group do not have a direct like-for-like comparison. However, the removal of standard secondary polymers typically required for a liquid spout pouch packaging format (such as Nylon and Polyester (PET)) has reduced the material components required for the pack.

The 1.5L pouch was designed as a refill pack for an existing Koh product housed in a rigid spray bottle, which consumers keep at home and refill. As an e-commerce and sustainability-focused brand, it was vital for Koh to have a lightweight, recyclable pouch solution to house their product in a large value quantity to: a) Limit the amount of times that consumers had to order and b) Limit the carbon emissions required for freight in order to service their client needs. The pouch fits 5 bottles worth of product and weighs just 30g- compared to the 570g for the same volume if using rigid bottles (114g per bottle).

The addition of the Roll 'n' Recycle label (also 100%PE) to the pack provides the ability for consumers to roll

the empty pack into a 3D shape and affix in place with the label, to then dispose of in co-mingled household recycling for kerbside collection.

How much on-pack and off-pack information do you provide your customers?

The on-pack information is key for communicating to customers that the packs are kerbside recyclable once rolled, and how to complete the rolling action with the use of the label. The Roll 'n' Recycle program has been submitted to APCO for acceptance into the ARL label also. The Roll 'n' Recycle label is pre-adhered to the pack at time of packaging manufacture, and contains the instructions on how the label and rolling process function. Further messaging is provided underneath the label on the pouch itself, with a reinforcing thank-you message to the end consumer for their participation.

Further key messaging includes a generic recycle icon, the Australian made and owned logo, and key sustainability partnership icons for Koh (including Cruelty Free International, GECA Certified, Sensitive Choice- Asthma Council, 1% For the Planet).

There is a QR code on the pack for consumers to find out more information about Koh and their products.



Please share a little bit about each of the partners/collaborators who worked on this packaging design.

Can you explain each of their roles?

As an all-inclusive packaging service provider, Close the Loop Group worked on the design, technology and manufacturing aspects of the Koh pouch in-house. As they had already worked on Roll 'n' Recycle with creator PREP Design and label specialist Result Group, they did not need to re-engage with the external providers for this project.

Koh collaborated with Close the Loop Group on the pouch sizing and shape, handle punch-out and spout location, to ensure optimal filling and use in their supply chain.

Trialling the pack with product on the client's production line is a key step for new recyclable projects, and this was done by O F Pack and Koh prior to the full commercial run.

What do you feel will be needed to further improve packaging design in the future? (e.g. education, investment, policy/legislation, tech, etc?)

Improvements in the flexible packaging space in particular require constant, incremental technology changes to reduce complex material structures where possible and improve the performance of mono-structures without impacting food safety and increasing food waste. In combination with clever applications of technology (such as the Roll 'n' Recycle label) with packaging, Close the Loop Group can step outside the box of what exists now and instead provide new ways to recycle.

However, these pack improvements must be supported by brand owner investment and education for production staff. Often making the switch to more sustainable packaging materials requires changes to existing machinery (including sealing temperature and even run speed adjustments).

It is much harder for small-medium sized businesses to invest in sustainable packaging changes than it is for large corporations with greater capital. Yet often multi-nationals require great amounts of consumer and legislative pressure to make changes to their packaging materials that may increase costs, due to reliance on shareholders and profits. Government legislation is key for bringing about change in this space, and should also be implemented for financially supporting small and medium-sized brands who are

committed to sustainability but need assistance to adopt new packaging formats in their supply chain.

Education and accessibility for consumers is just as vital - people must be able to easily identify packaging as recyclable or compostable, understand on-pack communications, and have easy access to the required disposal method to ensure the required reduction in waste to landfill that we need.

What does your company have planned in the future? Any new innovations on the horizon?

Close the Loop Group have some very exciting ideas in the pipeline across the sustainability and innovation space, including uses for packaging that go beyond standard product protection and have great functionality. One project which will be entered in the 2023 awards involves a pouch made for scientific research and breeding of larvae. Another involves a high barrier, plastic-free paper flexible packaging film with a variety of applications. Recycled content will also feature in their upcoming innovation projects that will be released to the market in the next 6 months.



As a winner of the PIDA awards, how valuable is the award to your organisation?

Jessica Ansell, Marketing Manager, Close the Loop Group says, "As part of Close the Loop Group, O F Packaging is now more than ever committed to better packaging solutions that provide feasible avenues for reuse, recovery and recycling. We are committed to circular economy ideals that move away from a single-use, throwaway culture and instead provide an avenue for materials to be reused into new, viable products. Being recognised by PIDA for this award is a great honour, as it highlights how tangible innovations can be formed within the constraints of existing infrastructure with passionate, committed team members and clients working together for change."



How is winning a WorldStar Packaging Award valuable to your organisation?



Joe Foster FAIP, CEO, Close the Loop Group says, "Close the Loop Group are so grateful to have the hard work and dedication that went into creating this project recognised. Forward-thinking and sustainable brands like Koh are pushing the boundaries, to ensure simpler packaging materials and less plastics are used. This award further substantiates our aim to be leaders in the sustainable packaging solutions, and we will continue our efforts towards helping achieve a more circular economy for the packaging industry."



The Australasian Packaging Innovation & Design (PIDA) Awards are an Australia and New Zealand program that is coordinated by the Australian Institute of Packaging (AIP). The awards recognise companies and individuals who are making a significant difference in their field across Australia and New Zealand. The PIDA Awards are the exclusive entry point for Australia and New Zealand for the prestigious WorldStar Packaging Awards.

The Design Innovation of the Year company awards recognise organisations that have designed innovative packaging within each of these six manufacturing categories:

- Food
- Beverage
- Health, Beauty & Wellness
- Domestic & Household
- Labelling & Decoration
- Outside of the Box

There are four special awards available:

- Sustainable Packaging Design
- Save Food Packaging Design
- Accessible & Inclusive Packaging Design
- Marketing Award

The **Sustainable Packaging Design Special Award** is designed to recognise companies that have developed innovative packaging solutions that incorporate sustainability considerations. All entries are judged on Sustainable Packaging Design considerations such as social impact, material, source reduction, energy and recovery and what packaging changes the company is undertaking to meet the 2025 National Packaging Targets. This is also a WorldStar Packaging Awards category.



The Australian Institute of Packaging (AIP) is the peak professional body for packaging education and training in Australasia. The AIP helps shape the careers of generations of packaging professionals – from packaging technologists to international packaging business leaders along with a host of people in associated disciplines – sales and marketing, purchasing, production and environment.

Australian Institute of Packaging

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