



**Made for
Everything.
For Everyday.**



100% Plastic Free.

The Fibre Bottle by Cullen has been designed to effectively house dry & solid goods for a safe journey through the consumer supply chain. Made with purpose to reduce plastic packaging waste, The Fibre Bottle by Cullen is 100% plastic-free.



We believe in paper, not pollution.

www.cullen.co.uk

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Our mission is to deliver 100%
plastic-free products
& **packaging solutions**
for our customers worldwide.

Since 2020, we have supplied over

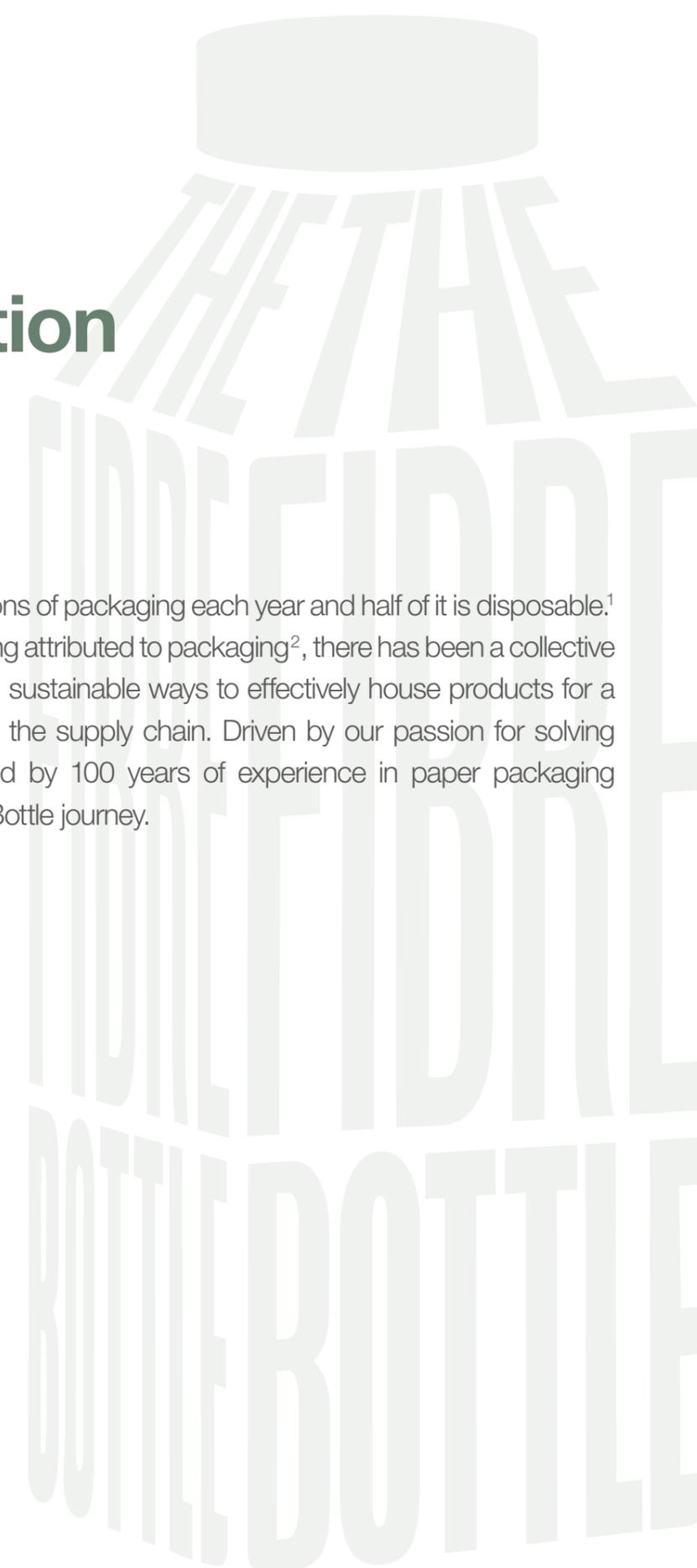
1 billion

eco-friendly products

to over **34 countries** globally.

Our motivation

The world produces 300,000,000 tons of packaging each year and half of it is disposable.¹ With 40% of this total plastic use being attributed to packaging², there has been a collective push across all sectors to find new, sustainable ways to effectively house products for a safe and impactful journey through the supply chain. Driven by our passion for solving our customer problems and fuelled by 100 years of experience in paper packaging manufacture, we started our Fibre Bottle journey.



Business benefits

There are many benefits to using The Fibre Bottle as a packaging solution for your business.

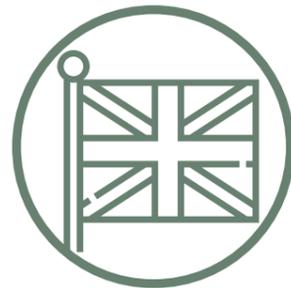


100% Plastic-free

By using a fibre alternative to plastic, your business will reduce its contribution to the world's single-use plastic problem. Utilised for a small moment in time, single-use plastic remains on the planet for several hundred years.¹

Manufactured in the UK

44% of plastic packaging is imported into the UK². By replacing single-use plastic with a paper solution from a native UK supplier, your business can reduce costs significantly, decrease your lead times and improve your supply chain reliability. In addition, you will reduce your carbon footprint associated with transport.



Recyclable, biodegradable & compostable

Made from natural matter, The Fibre Bottle is recyclable, biodegradable & compostable. When recycling, paper mills significantly out perform comparable plastic recycling plants.⁴ When choosing landfill or nature as a means of disposal, paper degrades within two months of being disposed of.⁵



Improved CO2 footprint and reduced eco-impact

In single-use packaging, carbon footprint and general eco-friendliness of moulded fibre products are significantly better when compared to plastic. For a single-use packaging product of the same size and functionality, moulded fibre has a 63% lower CO2 emission as compared to polystyrene and a 150% lower as compared to PET⁶.



Strong & robust

The Fibre Bottle is designed to withstand the forces experienced in a typical fulfilment line. We partnered with The University of Strathclyde to quantify the structural performance of the bottle in both axial and transverse loading conditions, through both physical testing and computational modelling. Our current geometry can support the load of 16 filled bottles in the axial direction equating to approximately 8kg, making The Fibre Bottle a strong, reliable alternative to plastic.

Made from naturally derived raw materials

By using a product made from naturally derived raw materials (kraft paper & water), in place of a single-use plastic alternative, your company can reduce their contribution to the growing plastic problem while achieving improved sustainability. By making this switch, you remove potential plastic tax implications for your business whilst becoming part of the solution, not the problem.



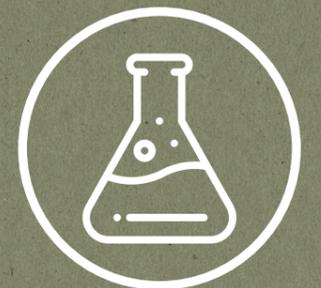
Made from FSC certified kraft paper off-cuts recycled from our corrugate manufacturing facility

By using a product made from recycled paper your company is contributing to a healthier planet. According to one estimate, for every ton (907kg) of paper that is recycled, 17 tree lives are spared – along with 380 gallons (1,727 litres) of oil, three cubic yards (2.29 cubic metres) of landfill space, 4,000 kilowatts of energy, and 7,000 gallons (31,822 litres) of water.⁷



Made by experts

Our multi-industry partners have trusted Cullen as an innovative supplier of paper-based commercial solutions for over 100 years. Cullen has been successfully designing and manufacturing moulded fibre, leak-proof bottles for decades. We have produced over 1 billion 100% plastic-free products since 2020 to 34 countries globally. By working with Cullen, you will benefit from our wealth of experience, saving time, resources & costs.

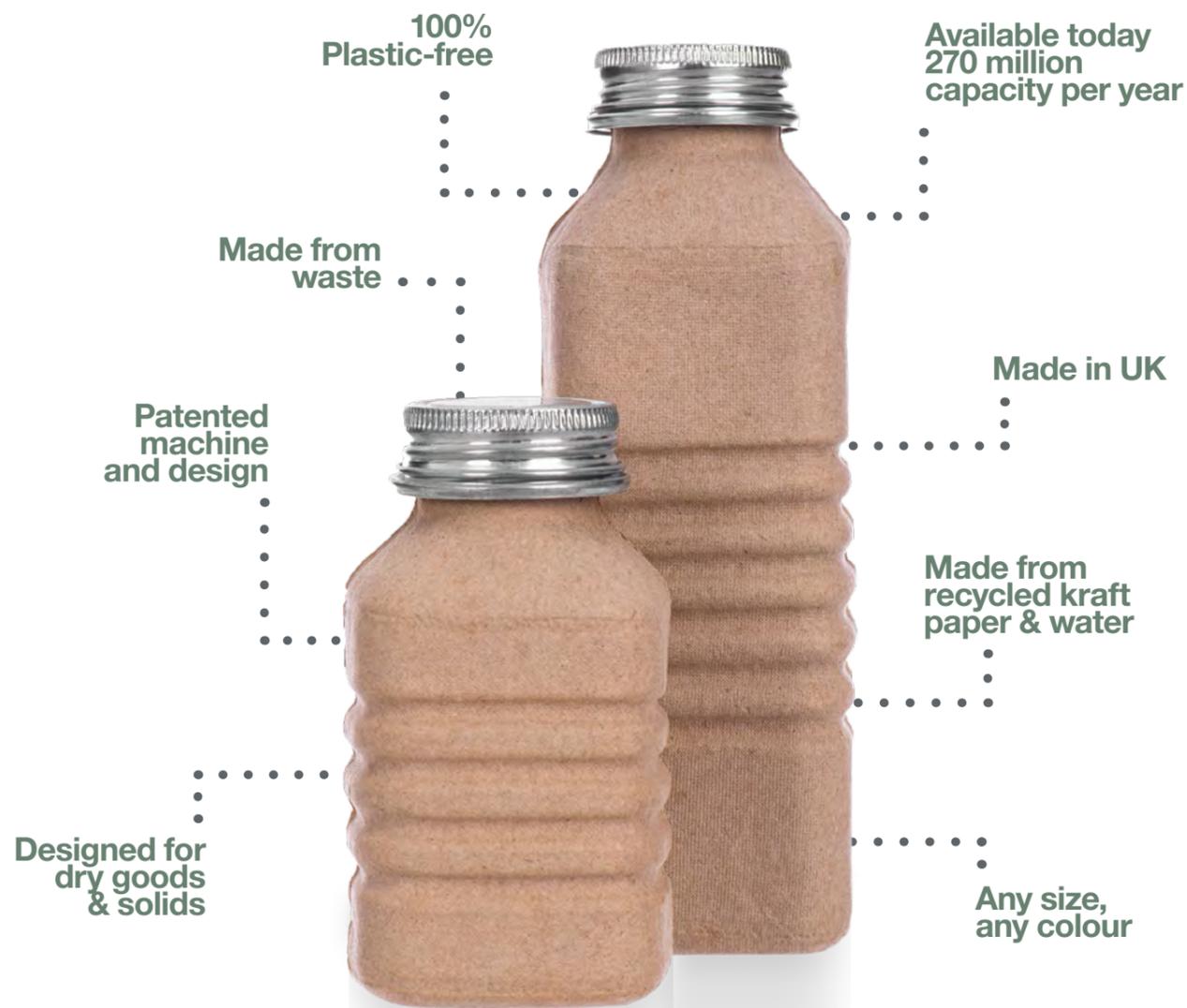


Made with purpose

Our aim was to create a sustainable packaging solution for consumer goods that would reduce plastic waste. It had to be commercially viable, supply chain robust and 100% plastic-free, whilst having no lasting impact on the planet following its useful life.

With these goals in place, and after much research, we have focused on dry goods over liquid goods for phase 1 of our paper bottle launch. This eliminated the requirement for plastic liners and simplified the design process at this stage in project.

The Fibre Bottle was born.





Suitable products

The Fibre Bottle is suitable for a variety of dry & solid goods. At the start of your packaging transition, our research and development team will work with you to offer guidance on product compatibility.

Circular in nature

Our 100% plastic-free fibre bottles are made from FSC certified kraft paper off-cuts recycled from our corrugate manufacturing facility and compost back to nature at the end of their useful life.

1. The off-cuts generated during our corrugate conversion process form the raw material for our fibre products. This closed-loop recycling system utilises the waste that we produce and the amount of virgin raw material we use.

2. The corrugate offcuts are mixed with water to form a slurry (fibre). This fibre is vacuum formed into the bottle mould and transferred into the tri-zone dryer. The finished product is strong and durable and entirely plastic free.

8. Cullen exclusively uses FSC-approved raw material in our corrugated and fibre manufacturing facilities. This ensures a chain of custody that connects consumers to healthy forests by tracking products from forest to shelf.

7. Following disposal, the Fibre Bottle will quickly break down into its organic materials naturally found in soil. Given that our raw material, cardboard, starts its life as trees, a fully circular nature to the process and product has been achieved.

6. Once the product is finished, the customer removes the closure for recycling and disposes of The Fibre Bottle. Regardless of the waste stream chosen, the bottle will decompose into original organic matter.

3. The product leaves the Cullen factory and is used by our customers to house dry goods. To maintain its eco-credentials, the Fibre Bottle can be branded with a biodegradable paper label and the goods are secured with a recyclable metal closure with plant-based security seal.

4. Following fulfilment, the structurally robust Fibre Bottle can be transported in corrugate boxes to retailers, finally making its way into the hands of the consumer.

5. The Fibre Bottle can be stored alongside other items in a dry cupboard and its contents used daily. Alternatively, the contents can be decanted into a reusable container if The Fibre Bottle has been used for refill purposes.





A sustainable future

With more than 57% of consumers saying that they are willing to change their purchasing behaviour “to help reduce negative environmental impact,” sustainable packaging solutions are more essential than ever for retailers to stay relevant with the consumer.³

The consumer lens on packaging

Consumer views are evolving and the outcome of The Pro Carton European Packaging Perceptions Study 2018¹ supported this. The study which surveyed 7,000 consumers from seven European countries, including the UK, concluded:

68%

of European consumers admit that making environmentally friendly decisions has become more important to them over the past five years.

75%

admit that the environmental impact of a product's packaging affects their purchasing decision.

75%

of consumers admit that packaging in the media has impacted their purchasing decisions.

More than
50%

of all consumers identify cardboard/carton board as the most environmental and recyclable form of packaging.

64%

of consumers think retailers and brands are not doing enough to introduce environmentally friendly packaging.

91%

of all consumers would shop at a supermarket or retailer that proactively encouraged environmentally friendly packaging from its suppliers.

77%

of consumers would pay a premium for more environmentally friendly packaging.

More than
50%

of all consumers have switched brands because of packaging - non-recyclable and unnecessary packaging are the most common reasons for change.



About Cullen

As Europe's only combined manufacturer of moulded fibre and corrugated packaging, Cullen work in partnership with our clients to deliver future focussed, plastic-free, sustainable products and packaging solutions which meet individual business needs and commercial expectations. Through our unique manufacturing process and 100 years of experience, we prioritise product functionality in line with sustainability, to ensure our paper-based solutions are fit for purpose whilst being fully recyclable, biodegradable, and compostable.

We have supplied over 1 billion eco-friendly products to over 34 countries globally and aim to grow this through innovation & education.

Cullen believes in sustainable consumption and we want to help our customers do business while alleviating non-recyclable waste, contributing to a healthier planet.

Accreditations

At Cullen, quality assurance is paramount. We are committed to delivering a consistently high standard and this is recognised in the accreditations that our business holds.



Choose future friendly

Cullen understands the challenges associated with integrating a new packaging component into your business. As packaging experts, we will work with you to action this planet positive change.

To go plastic-free, talk to our team.

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1. <https://plasticoceans.org/the-facts/>
2. Mintel Food & Drink Packaging, November 2019
3. https://nrf.com/research/meet-2020-consumers-driving-change?utm_medium=Twitter%20NRF%20Organic&utm_source=Social&utm_campaign=NRF%20Research&utm_content=IBM%20Meet%202020%20Consumer
4. Ewijk et al – Journal of Industrial Ecology (2018) Lobbe – Daten und Fakten zur Wertstoffaufbereitungsanlage (2020)
5. Heinrich-Böll-Stiftung & Bund für Umwelt und Naturschutz Deutschland – Der Plastikatlas (2019) Government of Western Australia, Department of Environment and Conservation – Fact Sheet Litter (2011)
6. Marketeers Life Cycle Assessment (2020) Anthesis – Packaging Sustainability Evaluation Report (2018)
7. <https://www.bbc.com/future/ bespoke/made-on-earth/how-paper-is-making-a-comeback/>