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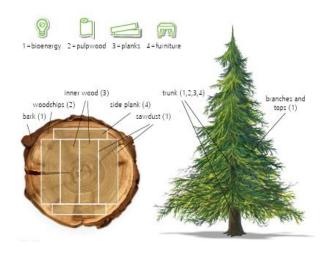


## Sustainability

# From forest to future: how paper carrier bags contribute to the circular bioeconomy

Stockholm, 23 September 2025: With the adoption of the Packaging and Packaging Waste Regulation (PPWR), retailers and brand owners are under increasing pressure to reduce their environmental footprint. The regulation sets ambitious targets for packaging waste reduction, recyclability and responsible use of resources. Paper carrier bags meet the highest standards. They are made from renewable raw materials sourced from sustainable forest management and are reusable and recyclable. But that's not all: the kraft paper and paper carrier bag manufacturers are constantly working to conserve resources, minimise environmental impact and increase product quality at all stages of the production process – and they have been doing so long before the PPWR came into force.

"Saving resources has a long tradition in our industry," says Elin Gordon, Secretary General of CEPI Eurokraft. "The concept of sustainability was introduced in the early 18th century in connection with the responsible use of wood as a resource. And this principle still defines how we operate today." The primary raw material for kraft paper is wood fibre, mostly sourced from sustainably managed European forests. In these forests, trees are selectively harvested, primarily removing dead, weak or misshapen ones to support healthy growth. This practice supports the objectives of the EU Deforestation Regulation (EUDR). FSC® and PEFC™ certifications also ensure the traceability of the raw materials and confirm that they originate



All parts of a tree are used. Copyright: The Paper Bag

from responsibly managed, deforestation-free sources. Adding to that, the kraft paper industry relies on process waste from the timber industry such as wood chips and thinning wood – this way, no part of the tree is wasted<sup>1</sup>. "This no-waste principle is continued throughout the production of kraft paper and paper carrier bags," explains Gordon. "Wherever possible, materials are utilised and recycled." One example is that internally generated biofuels, such as black liquor, are used in the mills' energy mix.





<sup>&</sup>lt;sup>1</sup> Cepi, Key statistics 2023, July 2024

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### **Energy-efficient kraft paper production**

Kraft paper production is highly energy-efficient. A large proportion of renewable energy sources is being used, while the reliance on fossil fuels is decreasing. According to a study by RISE<sup>2</sup>, in 2021, biofuels accounted for 92% of all fuels consumed for kraft paper production, with 78% being generated in the mills during the production process. Additionally, the mills produced 59% of their own electricity requirements. Of the purchased grid electricity consumed by the mills in 2021, 29% was identified as "green" electricity.

## **Recycling water in paper production**

In addition to energy, water is used efficiently and responsibly in the papermaking process. Most pulp and paper mills are strategically located near abundant water sources. In Europe, the majority draw primarily from surface water — rivers and lakes account for 87% of their intake. Groundwater provides another 12%, while only 1% comes from public water supplies. Since the 1990s, the industry has reduced the average water intake per tonne of paper by approximately 40%. Modern



Modern paper mills treat and reuse process water before returning it to its source in a clean state. Copyright: iStock

paper mills treat and reuse process water multiple times before returning around 90% to its source in a clean state. The remaining 10% either evaporates, remains in the product or is retained in solid waste<sup>3</sup>.

#### **Reusing production waste**

Residuals from kraft paper production, such as pulp residues, are fed back into the production cycle. When it comes to conversion, the paper carrier bag converters order paper in the exact quantity and size required for each order. Any waste generated during machine set-up, as well as production residues, are carefully sorted by type and turned to recycling. Remaining inks and adhesives are stored and reused for future orders. "This contributes to a closed-loop manufacturing process that minimises landfill waste and supports material efficiency," states Gordon.

#### Smart design: less is more

Paper carrier bags are designed to use only the amount of material needed to meet performance requirements. Their material efficiency has improved in the last two decades, with the strength





<sup>&</sup>lt;sup>2</sup> RISE, The carbon footprint of kraft sack paper and kraft paper sacks 2021, July 2023

<sup>&</sup>lt;sup>3</sup> Cepi, Key statistics 2023, July 2024

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of kraft paper having been optimised by 45%. The durability of high-quality paper carrier bags allows them to carry heavy loads with minimal material use. This aligns with the PPWR's emphasis on reducing unnecessary packaging.

### Reusability and recyclability

Thanks to their strength, high-quality paper carrier bags can be reused several times. Reusing a bag as long as possible conserves natural resources that would otherwise be utilised in the production of a new bag. And when it is no longer suitable for reuse, paper carrier bags can easily be recycled through local waste streams. According to a study, paper-based packaging can be recycled more than 25 times<sup>4</sup>. The fibres can be repurposed into new paper products — from newspapers to corrugated packaging. "In our industry, sustainability is not a



High-quality paper carrier bags can be reused several times. Copyright: iStock

trend, but a tradition that evolves through innovation," concludes Gordon. "With paper carrier bags, we offer a future-proof packaging solution that comes from nature and gives back to nature – the perfect choice for retailers and brand owners who want to lead the shift to a circular bioeconomy."

#### "Simple choice, big impact"

The Paper Bag platform will celebrate the 8th European Paper Bag Day on 18 October 2025 under the theme "Simple choice, big impact". <u>Activities across Europe</u> will highlight how choosing paper carrier bags as a sustainable packaging option can make a significant difference for the environment. Retailers, brand owners and consumers are invited to join the celebrations and share their activities on Facebook, Instagram and LinkedIn using the hashtag **#EuropeanPaperBagDay**.

For further information, please visit <u>thepaperbag.org</u>, or contact us by email: <u>info@thepaperbag.org</u>.

#### The Paper Bag

"The Paper Bag" platform was founded in 2017 by the leading European kraft paper manufacturers and producers of paper bags. They dedicate themselves to promoting the advantages of paper packaging. "The Paper Bag" is steered by the organisations CEPI Eurokraft and EUROSAC. <a href="thepaperbag.org">thepaperbag.org</a>

<sup>&</sup>lt;sup>4</sup> Recyclability of Cartonboard and Carton, Rene Eckhart, Technische Universität Graz, Austria, 2021





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**CEPI Eurokraft** is the European Association for Producers of Sack Kraft Paper for the Paper Sack Industry and Kraft Paper for the Packaging Industry. It has ten member companies representing a volume of three million tonnes of paper produced in 11 countries. <a href="mailto:cepi-eurokraft.org">cepi-eurokraft.org</a>

**EUROSAC** is the European Federation of Multiwall Paper Sack Manufacturers. The federation represents over 80% of European paper sack manufacturers. Its members operate in 20 different countries. They produce some five billion paper sacks per year, representing 630,000 tonnes of paper converted in 55 plants. Sack manufacturers from all continents and bag manufacturers also contribute to the federation as corresponding members, and more than 30 suppliers (paper, film, machine or glue manufacturers) are registered as associate members. **eurosac.org** 

