

Paper Packaging

The Natural Choice



“There aren’t many industries around that can aspire to becoming genuinely sustainable. The paper industry, however, is one of them; it is inherently sustainable.”

Jonathon Porritt, Co-Founder, Forum for the Future



Paper Packaging The Natural Choice

With barricote[®], Mitsubishi HiTec Paper offers fully recyclable barrier papers for flexible food packaging. This is how we protect food, consumers and environment. Safe and sustainable.



The responsible use of resources and the environmentally friendly production of high-quality speciality papers are particularly important to us. Naturally, our barricate® barrier papers for food packaging are particularly sustainable and effective.

Our environmental policy in papermaking and converting has exceeded the current national and EU rules for some time now. To achieve sustainable energy production we use highly efficient combined heat and power generation in our modern gas power stations.

Our plants in Bielefeld and Flensburg are both certified in accordance with FSC® (Chain-of-Custody) and PEFC™ (Chain-of-Custody), and our integrated management system is certified according to ISO 9001 (quality management), ISO 14001 (environmental management) and ISO 50001 (energy management). In 2018, the hygiene management systems of both mills were successfully certified (INREKA, DIN EN 15593).

Food packaging is becoming more and more complex and multifunctional. It is no longer just about preservation, storage and transportation. The focus is on protecting packaged goods, protecting consumers and protecting the environment.

With barricate® BAG, LINER and WRAP, we have developed a series of particularly innovative and environmentally friendly barrier papers for flexible food packaging. Our barrier solutions are paper products made from virgin fibers. To protect the food, we rely on water-based coatings. With a total absence of foils, aluminium or fluorocarbons, barricate® papers offer effective protection against mineral oils, grease and oil, water and water vapor as well as oxygen and aroma. They are fully recyclable and can be fed into the waste paper cycle.

Barricate® barrier papers are certified for direct food contact. They can be used as wrapping papers, paperboard laminating papers, heat-sealable, hot melt or cold set glueable sachets and pouch papers. Effective, sustainable and safe.



- 2 **Paper packaging** is essential for minimising environmental impacts
- 4 **Paper packaging** is recycled more than any other packaging material
- 6 **Paper packaging** protects more resources than it uses
- 8 **Paper packaging** supports healthy forests
- 10 **Paper packaging** helps to tackle climate change
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THE FACT:

Paper packaging is essential for minimising environmental impacts



Well-designed, efficiently produced, appropriately used and responsibly disposed of packaging provides multiple benefits. It's essential for minimising damage to products and extending their useful life, so that all the resources used to make those products are not wasted. It allows efficient distribution and safe and convenient access to goods. It communicates vital information to the customer and it can provide pleasure to those receiving gifts or enjoying luxury items.

Excessive and inappropriate use of materials, or thoughtless disposal, cannot be excused, but it's important to consider each packaging solution on its own merits and in relation to the job it has to do.

Paper packaging is the natural choice for minimal environmental impact and provides an effective and sustainable packaging solution.

Our packaging industry plays a critical role in protecting and preserving goods... in the food sector, the industry also has an essential role in preventing waste.

Thérèse Coffey, UK Environment Minister, 2017.¹

The high recyclability of Paper and Cardboard can also help consumers to 'do their bit' by allowing responsible disposal and maximum recycling.

Sustainable packaging is also the preferred solution with 96% of brand owners and retailers stating that the use of sustainable packaging is important to their business with just over half (52%) saying this is either 'very important' or 'critical'.

Pro Carton / Smithers PIRA, 2017.²

Paper offers inspiration – a widely used and recyclable packaging material that is relatively benign if leaked into the environment.

World Economic Forum, 2016.³

Paper packaging (which includes paper, card, corrugated cardboard, cartons and sacks) is often the sustainable packaging choice. Its key raw material, wood fibre, is a renewable resource and it's also the most recycled of all packaging materials.⁴

The European paper industry can demonstrate a long-held commitment to resource efficiency⁵ and to minimising its contribution to climate change.⁶

THE FACT:

Paper packaging is recycled more than any other packaging material



Recyclable packaging is high on consumer priorities and is increasingly driving product design and the choice of sustainable packaging materials.

When questioned, about a third of shoppers consider the recyclability and degradability of packaging to be a key concern.⁷ Brand owners and retailers also recognise that recycling of packaging is important to the consumer – 81% find it important and 48% even say it is critical for their brand.⁸ Turning waste into a resource is key to a circular economy.⁹

The paper industry has been recycling for centuries. As environmental awareness has grown, the ease with which paper can be recycled is an increasingly valued attribute. Recycling is ecologically and economically sound and recovered paper is a vital raw material for paper production.

European Recovered Paper Council, 2017.¹⁰

The good news is that most packaging is already recycled, especially paper-based packaging. According to data from the European Commission's Eurostat database, an average of 67% of packaging (across all material types) was recycled in 2016. For paper and cardboard, the recycling rate was 83% - the highest of any packaging material.¹¹

Official recycling rates are currently based on the weight of materials sent for recycling. Despite good segregation this can include things that can't be recycled in practice. It has been estimated that the net loss from household collections is about 14% for paper and board and 40% for plastics.¹²

2016 packaging recycling rates by material.

In Europe, 67% of packaging (across all material types) was recycled in 2016.

- Paper & cardboard packaging 85%
- Metallic packaging 78%
- Glass packaging 74%
- Plastic packaging 42%

Source: Eurostat, 2016.



Globally, only 14% of plastic packaging is collected for recycling. When additional value losses in sorting and reprocessing are factored in, only 5% of material value is retained for a subsequent use.

World Economic Forum, 2016.¹³

For paper and cardboard, despite having the best recycling record, further progress is being made with targeted initiatives for drinks packaging. In 2016, 47% of all beverage cartons sold in Europe were recycled, with some countries having rates over 70%.¹⁴ For paper coffee cups, technical requirement for a barrier material to prevent leaks can make recycling trickier and their 'on the go' appeal hinders efficient collection. But the industry, working with brand owners and other stakeholders, has committed to tackling this issue and initiatives such as co-collection with beverage cartons are showing promising signs of progress.¹⁵

Paper and cardboard packaging, besides being recyclable are also made from recycled fibre! Around 60% of cartons in Europe are made from recycled cartonboard¹⁶ and recycled paper provides 88% of the raw material for new corrugated boxes.¹⁷

THE FACT:

Paper packaging
protects more
resources than it uses



Packaging is essential in minimising damage to products and extending their useful life. Without sufficient packaging, there would be a greater risk of all the resources used to make the product being wasted and, on average, ten times more resources – materials, energy and water – are invested in products compared with the resources used to produce their packaging.¹⁸

It is of course important that packaging is well-designed, efficiently produced, appropriately used and responsibly disposed of.

Without packaging, many of the goods manufactured or food grown would be damaged or spoiled before they reached the shops. In developing countries as much as 50% of food can be wasted before it reaches the shops; thanks mainly to packaging only 3% goes to waste before it reaches the shops in the UK.

Global Action Plan, 2015.¹⁹

Well-designed packaging meets the requirements of the product and consumer while minimising environmental impacts of both the product and its package.

Pro Carton, 2017.

Paper packaging is fundamental to a circular economy and has the benefit that it is based on wood fibres which are renewable, recyclable and sustainable. 58% of European pulp and paper mills' energy consumption is bioenergy and 96% of on-site electricity production is through efficient combined heat and power (CHP) units. The European paper industry has achieved (between 1991 and 2014) substantial reductions in energy and water consumption, as well as emissions to air and water, despite a 42% increase in production.²⁰

We believe Europe's paper industry has a very bright future – because it is already a benchmark model of resource efficiency and a perfect fit for the circular economy.

CEPI, 2014.²¹

Producers of paper-based packaging continually demonstrate ongoing improvements in resource efficiency. For example, the beverage carton industry now produces 40% more cartons with the same amount of wood fibres as 20 years ago²² and the carbon footprint of paper sacks has reduced by 16%, partly by reducing their weight through improved paper quality.²³

THE FACT:

Paper packaging
supports healthy
forests



While there are serious pressures on natural forests around the world, most of these are found in the tropics and are due to a variety of issues. 50% of the world's wood harvest is used for energy and 28% for construction. There are some other uses but paper only directly takes 13%.²⁴

The most common pressures causing deforestation and severe forest degradation are: large and small-scale agriculture; unsustainable logging; mining; infrastructure projects; and increased fire incidence and intensity.

WWF, 2015.²⁵

The European pulp and paper industries are committed to use wood that has been legally harvested and, ideally, comes from responsibly managed forests (such as those certified to FSC or PEFC standards). This is reflected in the reality: 90% of the wood used by the industry is from within the European Union, where the risk of illegal logging is low; and 60% of the wood used by the industry is third-party certified as coming from well-managed forests.²⁶

Production of packaging grades is growing and now accounts for 50% of European paper and board production.²⁷ Yet Europe's forest cover is growing too.

Between 2005 and 2015, European forests grew by 44,000 Square Kilometres - that's an area bigger than Switzerland and amounts to over 1,500 football pitches of forest growth every day!

FAO data, 2005-2015.²⁸

As the packaging industry faces a worldwide demand for paper and board, and because the number of times paper can be recycled is limited, wood is constantly needed as a source for the production of packaging. This makes sustainable management of forests an essential requirement for the packaging industry.²⁹

Of course, a lot of paper-based packaging is made from recycled fibre but those items that rely on virgin wood fibre, because of technical requirements, are contributing to the demand for well managed forests. For example, beverage carton producers are sourcing 100% wood fibre from legal and acceptable sources and have also progressively increased the amount of FSC-certified material that they are using, from 11% of all fibre purchased in 2007 to 43% in 2015.³⁰

In June last year, Amazon launched an online grocery service in the UK – Amazon Fresh. Orders are delivered in distinctive branded brown paper bags using PEFC certified materials. Amazon customers can therefore rest assured that their groceries will be delivered in a responsibly-sourced paper alternative to the traditional plastic bag.

PEFC, 2017.³¹

Paper packaging is the natural choice for sustainable packaging.

THE FACT:

Paper packaging
helps to tackle climate
change



Through its contribution to the green economy, the forest products industry plays a critical role in mitigating the negative impacts of climate change and reducing GHG emissions through carbon sequestration and improved resource efficiency.³²

Choosing paper packaging is one way to tackle climate change. As the provider of a renewable and recyclable resource, forests of all types play a critical role in the global carbon cycle. The forest products industry is helping to alleviate climate change through carbon sequestration (planted trees absorbing carbon dioxide as they grow) and investments to improve resource efficiency.³³

The European paper industry has reduced its CO₂ emissions per tonne of product by 45% since 1990.

CEPI Statistics.³⁴

The European pulp and paper industry is one of the largest bioenergy producers and consumers in the European Union. 56% of its primary energy consumption comes from bioenergy, mostly by using its process residues and by-products as fuel.

CEPI, 2015.³⁵

While the carbon footprint of paper or board may compare well to other materials, there are many other factors, including design, that also influence the carbon footprint of a specific piece of packaging.

A 'life cycle' approach must be taken towards packaging which includes; the use of all materials from sustainable sources; design-for-recycling; maximising lorry loads; efficient stacking; fast filling speeds, ease of use and many other practical and functional requirements.

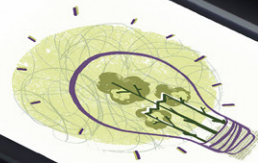
Also, it should be remembered that packaging's main purpose is to protect the product and on average ten times more resources – materials, energy and water – are invested in products compared with the resources used to produce their packaging.³⁶

The direct costs associated with using packaging are relatively small compared to the value it adds to the supply chain in ensuring that these embedded resources do not go to waste.

Food & Drink Federation / INCPEN, 2017.³⁷

THE FACT:

Paper packaging is
attractive and
impactful



Paper and cardboard is a versatile and effective packaging material, whether in storage or transit, displayed in-store or used in the home.

The sturdy, well branded package makes a great first impression, which raises expectations for the product inside. Those expectations, in turn, influence how the customer perceives the product itself. Higher expectations, if not actually contradicted by the product, result in a better customer experience.

Roger Dooley, Marketing Author and Forbes Contributor, 2014.³⁸

In aid of efficient logistics operations, paper and cardboard can be just the right fit. It is robust and protective, allowing easy stacking and economical use of space. For example, a truck loaded with filled beverage cartons transports about 95% product and only 5% packaging.³⁹

As well as being safe and hygienic, paper packaging provides a wealth of design options. It can be engineered into almost any shape and directly printed with essential information and high-quality graphics. It can be given a range of special finishes, whether to provide a touch of luxury or a sense of what's inside (as for example with braille embossing).

Paper packaging is also efficient. In addition to providing protection during transit, shelf-ready packaging promotes the product in-store, where many final purchasing decisions are made. Done well, the right packaging solution is noticed by up to 76% more shoppers.⁴⁰

Retailers can boost their sales of fruits & vegetables up to an astonishing 14% if they present their produce in corrugated packaging instead of returnable plastic crates.

Eye Square, 2015.⁴¹

The advertising value of paper packaging continues to build brand recognition and loyalty in the home, where its attractive look and feel endures. These are two important 'touchpoints' - pure visual contact, where the consumer sees the packaging, and tactile contacts, where the consumer holds the packaging to obtain information about the product or use it. The tactile contacts are particularly important here as they are intense and long-lasting.⁴²

Cartons achieve pure visual contacts and – particularly for products used regularly in the household - a considerable number of tactile contacts. Touchpoints in the true sense of the word.

Pro Carton, 2015.⁴³

THE FACT:

Paper packaging
is preferred by
consumers



Many people look to the product's packaging to help them make a decision about what to buy. Packaging provides an in-depth source of information to help consumers make their purchasing decisions and, regardless of age or purchasing habits, all consumers hold packs in their hands to gain information about product features.⁴⁴

The practical benefits of the packaging material can also be a point of preference. Based on a survey of UK consumers, 47% appreciated the light-weight nature of paper packaging (more so than for plastic, at 22%). 37% feel that paper packaging is safer to use and 36% find it easier to open and close. Almost half (48%) prefer the 'touch and feel' of paper and cardboard rather than other packaging materials and around a third of consumers (36%) have a preference for paper packaging because it is all-round more practical.

Paper packaging is well regarded for being better for the environment and for being easier to recycle.

Two Sides survey results, 2018.

Packaging is also important for communicating environmental friendliness.⁴⁵ Over a third of consumers (38%) prefer paper packaging more than other materials, because they believe it is better for the environment.⁴⁶ In contrast, 87% of EU citizens are worried about the environmental impacts of plastics (74% are also concerned about the impact on health) and 94% think that industry and retailers should make an effort to reduce plastic packaging.⁴⁷

Four out of five people questioned were concerned about the amount of plastic packaging thrown away in the UK and 91% wanted plastic-free aisles in supermarkets.

The Guardian, 2017.⁴⁸

Paper packaging must be the choice now for environmentally conscious companies who should understand that consumers appreciate that paper packaging is based on natural and renewable raw materials. 41% prefer it because it is easier to recycle (more than for any other packaging material) and 73% believe it makes good use of recycled materials. 64% of consumers like paper packaging because it is made from renewable wood fibre and 78% like that the fact that it is biodegradable.

No wonder consumers love paper packaging.

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