

Paper Bags, The Natural Choice

The Facts

There is increasing concern about the over-use of plastic bags and particularly their contribution to marine litter. EU countries have acted by introducing bans, charges and other initiatives to limit their use. Whilst a general reduction in unnecessary packaging will be a valuable contribution to a circular and less wasteful economy, paper bags, because of their natural and renewable attributes, present an attractive and practical alternative. Studies show that they can be the natural and environmental alternative to plastic and textile bags.

Society is concerned about the overconsumption of plastic

In recent years there has been growing recognition of the impact that single-use packaging, particularly plastic, has on the environment. There are concerns that relatively little plastic packaging is recycled (42% EU average in 2016¹ and just 14% globally²) and that, when discarded irresponsibly, it is a significant contributor to marine pollution. It has been widely reported that by the year 2050 there could be more plastic in the ocean than fish.²

According to Marine Litter Watch, shopping bags are the 7th most significant item of litter found on Europe's beaches.³ Between 2013 and 2019, 3% of beach litter was found to be plastic shopping bags and 0.2% were bags made of paper, although the prevalence of plastic bags has reduced since Governments acted to limit their use.⁴

“ Nearly 80% of the litter in the sea comes from the land. Most of it is plastic. We're now finding plastic bags in the stomachs of sea birds and stranded whales, so it's obviously time to act. ”

European Environment Commissioner, Karmenu Vella, November 2017

EU countries must drastically reduce consumption of lightweight plastic carrier bags

In 2015, the EU introduced legislation targeting plastic bags, with one of the aims being to reduce the average consumption of bags per person, from around 200 per year, to 90 by the end of 2019 and 40 bags per person by 2025.⁵

Ireland has had a levy on single-use plastic bags since 2002 and has seen a 95% reduction in their use.⁶ Other countries have since adopted various measures to try to reduce consumption,

including partial bans in France and Belgium (and proposed for Austria), mandatory charges in Denmark, Estonia, Netherlands, Spain and the UK and voluntary commitments in Germany and Finland.⁷ These measures have encouraged consumers to reuse their shopping bags and some retailers to seek alternatives to traditional, non-biodegradable plastic.

Paper bags can be an attractive alternative

The raw material for paper bags, wood, is a renewable and sustainable resource. Between 2005 and 2020, European forests grew by an area the size of Switzerland, the equivalent of 1,500 football pitches every day.⁸

The recycling rate for paper and cardboard packaging in the EU is 85%¹ (58% globally²). Even if a paper bag is irresponsibly discarded, due to its natural compostable characteristics it will have a relatively low impact. Contrary to popular belief, paper bags can be very robust. Kraft paper is especially developed for demanding packaging. Due to its long and strong virgin fibres, it has a high level of mechanical strength. The choice of glue and a proficient construction of the handles add even more to the bag's strength and durability.⁹

Paper bags are manufactured from a wide variety of fibre types dependent on what they are being designed to carry. Paper bags made of recycled or, a hybrid of new and recycled fibre are a cost efficient option for non-food packaging applications required to carry less weight e.g. shoe or textiles/clothing.

“ Paper is very tactile due to its texture and shape. Its outstanding print quality and colour reproduction allow for great creativity in advertising and development of the brand image. ”

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The natural attributes of paper also resonate with consumers. According to research by Two Sides, 63% of European consumers prefer paper and cardboard packaging because it is better for the environment, 72% like it because it is home compostable and 57% prefer it for being easier to recycle.¹⁰

How paper bags compare environmentally

Making reliable comparisons of the environmental impacts of different types of shopping bags can be complicated. Various organisations have undertaken Life Cycle Assessments (LCAs), which provide useful insights, but it needs to be remembered that the results are influenced by the scope of what is included, data quality, any assumptions made and the methodology.

It's also necessary to consider which environmental impacts are of most concern. For example, one LCA concludes that lightweight plastic bags can have a lower global warming potential (contribution to climate change) and suggest that a paper bag, for example, would have to be reused four times to minimise its impact to the same level.¹¹

However, UK Supermarket Morrisons is bringing paper bags back, saving 1,300 tonnes of plastic a year and their research has revealed that their virgin-fibre paper bags and the plastic bags they're replacing have an equivalent carbon footprint. Also, at their end of life, their paper bags will have a much higher chance of being recycled; being placed in curbside paper recycling.

“Our customers are re-using our bags and they are re-using our paper bags” and “Up to 4 hours we tested them in the rain with frozen food and they still could hold the amount.”

Natasha Cook, Morrisons Packaging Manager¹²

When asked if customers will really re-use paper bags at least 3 times to reduce environmental impact, Natasha Cook, Morrisons' Packaging Manager, said their customer data showed that about 71% of their customers don't buy new bags.

Sources

1. Eurostat, 2016.
2. Ellen MacArthur Foundation, The New Plastics Economy: Rethinking the Future of Plastics & Catalysing Action, 2017.
3. Marine Litter Watch, Citizens collect plastic and data to protect Europe's marine environment, 2018.
4. Marine LitterWatch data viewer, accessed March 2019.
5. DIRECTIVE (EU) 2015/720.
6. European Commission, 2016.
7. <https://www.thepaperbag.org/for-compliance-with-the-law/regulations-in-eu/>
8. Two Sides analysis of FAO data, 2020.
9. <https://www.thepaperbag.org/for-high-quality/>
10. Two Sides/Toluna survey, March 2020.
11. Environment Agency, Life Cycle Assessment of Supermarket Carrier Bags, 2011.
12. BBC Radio, You and Yours, 9th May 2019.
13. The Danish Environmental Protection Agency, Life Cycle Assessment of grocery carrier bags, 2018.
14. IVL Swedish Environmental Research Institute, A comparative LCA study of various concepts for shopping bags and cement sacks, 2016.

While textile bags, such as those made from cotton, are undoubtedly robust, research suggests that they need to be reused at least 50 times to achieve the same climate change performance as paper.¹³

Comparisons to other heavier materials, such as those used in fashion retail or supermarket 'bags for life', suggest that paper bags can be comparable or even better than plastic alternatives in terms of carbon footprint.¹³ This has also been shown to be the case when paper bags are compared to recycled plastic and bio-plastic bags.¹⁴

“Life Cycle Assessments by one European research institute has shown that paper shopping bags made from virgin wood fibre emit one-third of the CO₂e of plastic shopping bags (made with 50% recycled plastic).”

IVL Swedish Environmental Research Institute 2016

Of course, less overall consumption is highly necessary for society to meet the global climate challenges and the reuse of all types of bags, whatever their construction, is to be strongly encouraged.

“For all carrier bags, reuse as many times as possible before disposal is strongly encouraged.”

The Danish Environmental Protection Agency, 2018

It can be concluded that paper bags, easily reused and recycled, and made with wood from sustainably managed forests, are the natural choice for consumers and retailers.

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