

Determining the recyclability of fibre-based products



The Confederation of Paper Industries (CPI) is aware there is currently some uncertainty amongst packaging designers, brands, retailers and policy makers on the recyclability of fibre-based products. The purpose of this statement is to clarify CPI's position on how fibre-based products need to be assessed and evaluated to determine their recyclability.

Fibre-based products are widely acknowledged to be sustainable and renewable, with the vast majority being easily reprocessed at commercial paper mills with standard pulping technology¹. There is a small proportion of material that is more challenging to recycle due to their more complex composition. These products can still be recycled as long as they are separated for treatment at mills with specialist facilities, which can reprocess them effectively.

Changing social habits, innovation and the wider application of paper and board packaging have led to an increasing number of more complex fibre-based products entering the market, which are increasingly used to substitute plastics. Technologies that provide paper and board with additional characteristics, such as water or grease resistance or barrier properties have increased the range of fibre-based products, but they have also resulted in formats that more challenging to recycle. Although this is an opportunity for the Paper Industry to increase the amount of the fibre being recovered, some new formats pose certain challenges in standard paper mills and damage their efficiency, and also contribute to additional operational costs due to yield loss and increasing energy, water, chemical and waste management charges.

Since 2020 CPI has been working on the development of Papercycle², a detailed and evidence-based recyclability assessment methodology for fibre-based products. The outcome of this work was the creation of a robust and credible mechanism that assesses recyclability in a consistent manner. From evidence and data gathered through this work, CPI has concluded that depending on their amount, composition and interaction with other components, the various ingredients of fibre-based products can have a variable impact on recyclability and the quality of recycle. The recyclability of a fibre-based product can be determined only once the material has undergone a

thorough assessment and for complex materials and products, a laboratory test may need to be conducted according to an agreed methodology to ensure compatibility with the reprocessing system. Papercycle has employed a holistic approach, evaluating fibre yield, ease of pulping as well as the presence of contaminants that can be detrimental to the recycling process and/or the environment.

Our experience and evidence available shows that an assessment that is based on a visual assessment or a compositional analysis with thresholds assigned to the different components cannot determine recyclability in an accurate and consistent way. Simplified recyclability assessment methodologies can lead to severe unintended consequences. Potentially valuable recyclable fibre could be lost, whilst a higher level of contaminants could enter the paper stream. It would also be detrimental to the reputation of fibre-based products and could result in the public losing confidence in the recycling process. In turn, public policy may be distorted by a flawed understanding of the recyclability of materials.

The Papercycle methodology is the only robust and credible method CPI accepts for the determination of recyclability of fibre-based products in the UK. At the same time, CPI is following closely the developments on recyclability in Europe and the work of the Confederation of European Paper Industries (Cepi)³ and the 4evergreen⁴ alliance. Whilst considering national differences regarding collection and reprocessing methods, aiming for pan-European consistency is key. CPI wishes to see alignment between the UK and Europe on the criteria for recyclability for fibre-based products, whilst ensuring they are fit for purpose within the UK context.

Although CPI has established a clear framework for assessing recyclability, we also accept this is a dynamic and evolving process. As more evidence becomes available and policies in the UK and Europe crystallise, evaluation thresholds and parameters may need to be modified and we are closely monitoring the developments in this area to inform our thinking. We remain open and willing to work with Government and the supply chain to assist innovation and support technological and policy developments. Our aim is to increase availability and quantity of Paper for Recycling, whilst decreasing the levels of contamination, and we welcome wider collaboration and partnerships in this area.

¹Fibre-based products that are more challenging to recycle, when gathered together in volume, either loose or baled, can be dealt with by specialist reprocessing operations.

²<https://paper.org.uk/papercycle>

³<https://www.cepi.org/>

⁴<https://4evergreenforum.eu/>

Further Information

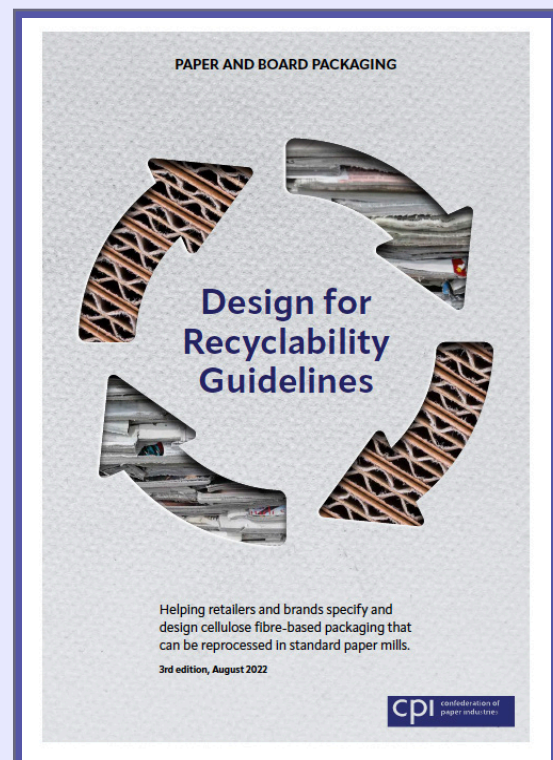
Further information is available from Dimitra Rappou, CPI Director of Recycling, email drappou@paper.org.uk

Confederation of Paper Industries

- The Confederation of Paper Industries (CPI) is the leading trade association representing the UK's Paper-based Industries, comprising recovered paper merchants, paper and board manufacturers and converters, corrugated packaging producers, and makers of soft tissue papers.
- CPI represents an industry with an aggregate annual turnover of £11.5 billion, 56,000 employees, and supports a further 93,000 jobs in the wider economy.
- For facts on the UK's Paper-based Industries please visit: www.paper.org.uk

Design for Recyclability Guidelines

CPI has published its revised [Design for Recyclability Guidelines](#), which are intended to provide broad direction and point the way towards resource efficient recycling of fibre-based packaging products. The Guidelines aim to optimise the recyclate entering the supply chain, but also to stimulate further innovation and technological developments in packaging materials and provide a direction of travel for future packaging design within the context of sustainability and resource efficiency. The Guidelines express the preferred position of the Paper Industry based on practical experience and they are not an expression of the acceptability of packaging formats for recycling. They do not suggest that any products with specifications outside those recommended are unrecyclable.



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