



We need to give packaging a second life.

Insights into recyclability and what we can all do to make more of our packaging recyclable.





I'd like to
come back as an
egg carton

The increasing pace of modern life makes food and beverage packaging essential, from that take-out coffee in the morning to the sandwich we buy for lunch. More recently, that need has shifted to include packaging for online purchases and home delivery.

As we consume more packaging material, the packaging industry needs to deliver more sustainable solutions to protect our environment.

Global concerns for the environment are growing, and the way consumers think and feel about packaging is also changing. Brand owners and packaging producers are recognizing the importance of meeting consumer demand and protecting their businesses and the environment.

Larger companies are placing a greater emphasis on sustainability, with defined corporate targets, and broadening their activity to include citizenship goals.

Brand owners are stepping up to the challenge

Almost all the top 100 FMCG companies (in terms of revenue) have made bold declarations and commitments to drive sustainability over the coming years.

"By 2025, 100% of **McDonald's** guest packaging will come from renewable, recycled or certified sources."

"**Costa** will work with the paper cup supply chain to ensure cups are designed, used, disposed of and collected to maximize rates of recycling in the UK."



The world needs a different kind of packaging

As well as protecting its contents, packaging can also grab the attention of shoppers and help to establish a price point for food products. If the packaging is seen as desirable and more valuable, brands can charge more.

52%
(approx.)

of online shoppers said they would order another product from the same company if their previous purchase was delivered in a premium package.

40%

of consumers said that they would share a picture of a product's packaging if they found it interesting.¹

Did you know ...

33%
(approx.)

of all food produced goes to waste. Think how much this could be reduced by better packaging.

(According to the United Nations, FAO)



Plastics in the regulatory spotlight

Government organizations are keeping a close eye on the packaging industry, particularly on the use of plastics in packaging

The 2018 EU packaging directive is aimed at reviewing the requirements for reuse and promoting high quality recycling.

This review will contribute to reaching the objective of the European Green Deal and the new Circular Economy Action Plan (CEAP) to ensure that **“all packaging on the EU market is reusable or recyclable in an economically viable way by 2030.”**

It will also contribute to the objective of 2018 European Strategy for Plastics, in which the Commission committed itself to ensure that by 2030, all plastics packaging placed on the market can be reused or recycled in a cost-effective manner.

The directive has also raised the packaging recycling target to **65%**, rising to **70%** by 2030. So clearly, there is work for the industry to do in meeting these targets.

Is the alternative paper-based?

After years of declining demand and changing consumer preferences, paper-based flexible packaging is growing in popularity.

A recent article by Forbes highlighted a European consumer preferences survey which concluded that “62% of consumers see paper and cardboard packaging as better for the environment. Additionally, 70% of consumers surveyed said they were actively taking steps to reduce their use of plastic packaging.”² It went on to note that paper is far more biodegradable than plastic and very easily recycled. In the worst case scenario, it ends up in a landfill where its degradation rate slows – while it takes up more space than the same weight of plastic.³



Protecting against grease, oil, moisture and liquids can lead to recycling issues

Sadly, most food packaging still uses unsustainable material such as extrusion polymers like LDPE, which does a good job at protecting the food inside the package, and at keeping essential functions like oil/ grease resistance and moisture resistance.

However, LDPE is difficult and uneconomic to recycle. So most PE-extruded packaging can only be recycled for the fibres or the PE lamination – rarely both. So one of the two will end up being incinerated.

The issue with different recycling methods and protocols

With an increasing demand for circularity, it makes sense to be able to recycle every single element of packaging. However, in some places, recyclability is no longer a 'nice extra'. It has clearly become a necessity.

Most western societies have well-established recycling systems in place; however, other parts of the world currently don't. Therefore it is hard to come up with one solution that suits every region.

Also, there are a number of test protocols and standards plus a number of laboratories that all claim to be the authority in determining 'recyclability'. However, none of these laboratories has cross-industry support nor can they provide a definitive measure of recyclability.

In many cases the acceptability of a product for recycling depends upon a wider range of factors, such as the way it is collected and presented, its application and any likelihood of contamination.



European list of standard grades of paper and board for recycling (EN 643:2014)

"This European standard defines grades of paper and board for recycling used as raw material for recycling in the manufacture of paper and board products in the paper industry.

This European Standard also specifies tolerances for unwanted materials as well as the composition of paper and board for recycling. Unusable materials (prohibited and unwanted materials) are clearly defined for all people involved in the management of paper and board for recycling."

Dispersion barrier coating technologies

In view of shifting consumer demands, the environmental situation globally and legislative reforms from governments, Covestro can help you meet the challenge head on.

We created a range of dispersion coating resins to help manufacturers and converters to meet environmental and sustainability targets with little or no interruption to their processes.

The switch from LDPE-based products needn't be stressful, expensive or time consuming.

At the same time, our technologies mean we can meet the needs of different packaging types for different consumer markets – including food and non-food.

Covestro resin solutions



are easy to formulate



are grease, oil and water (Cobb) resistant – this reduces the number of components and additives needed in the end formulation



require fewer test cycles, increasing their speed to market



I'd like to come back as a diet planner

An aerial photograph of a yellow car driving on a winding asphalt road that cuts through a dense, lush green forest. The car is positioned in the lower-middle section of the frame, moving towards the viewer. The road curves from the top left towards the bottom right. The surrounding trees are vibrant green, creating a textured, natural backdrop.

The roadmap to a more sustainable future

We need to steer the packaging industry towards a more sustainable future. We will only do this by creating products that meet the needs of everyone's consumers – from the moment the packaging is created until it reaches the consumer's hands, before being recycled and reintroduced into the packaging cycle.

Covestro can help make the transition from plastic to paper-based materials simple and inexpensive, with minimal disruption to existing equipment and processes.

Ultimately, we can all contribute to a more sustainable world through more reworkable and re-usable packaging.



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¹Please see the "Guidance on Use of Covestro Products in a Medical Application" document.
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