

Article 9 PPWR – Why certain packaging formats should be compostable

1. Introduction

Industrially compostable products, certified according to the harmonised European standard EN 13432 for the organic recovery of packaging, contribute to efficient waste management and circular preservation of resources by:

- Supporting the separate collection of biowaste (collection of more valuable resources from the waste that represents the highest fraction of municipal waste);
- Diverting biowaste from landfills into organic recycling;
- Diverting biowaste from incineration into organic recycling (biowaste often has a high moisture content and therefore complicates incineration, but furthers organic recycling);
- Diverting biowaste from mechanical recycling streams into organic recycling
- Reducing contamination in the biowaste collection caused by misthrows of conventional, non-biodegradable plastics that often end up in the final compost product, thereby contaminating compost and polluting the environment;
- Providing additional bio-based raw materials for industrial purposes, such as the production of bio-based plastics or organic fertilisers;¹
- Supporting biogas production in anaerobic digestion by increasing biowaste collection.²

With the entry into force of the Packaging and Packaging Waste Regulation ((EU) 2025/40),³ the legislator confirmed that using compostable packaging for certain packaging applications is deemed to have a demonstrable environmental benefit.

2. Article 9 PPWR

Article 9§1 of the PPWR stipulates that the following applications must meet European standards for industrial composting throughout the EU by 12 February 2028, with the additional possibility for member states to require that these products be home compostable:⁴

- Sticky labels attached to fruit and vegetables;
- Permeable tea, coffee, or other beverage bags;

¹ Ivanov et al.: Production and applications of crude polyhydroxyalkanoate-containing bioplastics from the organic fraction of municipal solid waste, *Int. J. Environ. Sci. Technol.*, 2015 (12), p. 725-738.

² European Bioplastics, Biodegradable plastics and the Circular Economy in Europe, https://docs.european-bioplastics.org/publications/Discussion_paper_Biodegradable_plastics_to_the_Circular_Economy_in_Europe.pdf.

³ Regulation (EU) 2025/40 of the European Parliament and of the Council of 19 December 2024 on packaging and packaging waste, amending Regulation (EU) 2019/1020 and Directive (EU) 2019/904, and repealing Directive 94/62/EC. The PPWR text can be found here: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202500040.

⁴ Find out more on EUBP's position on bioplastics in home composting: https://docs.european-bioplastics.org/publications/pp/2025/EUBP_PP_Bioplastics_in_Home_Composting.pdf.

- Soft after-use system single-serve units that contain tea, coffee, or other beverages and are intended to be used and disposed of together with the product.

As of 12 February 2028, these applications will be mandatorily compostable throughout the EU, elevating compostability to a product requirement.

Article 9§5 provides the possibility for the European Commission to present a legislative proposal to extend the list of mandatory compostable applications, where justified by technological and regulatory developments and aligned with EU environmental goals.

Additionally, under Article 9§2 of the PPWR, where Member States have a biowaste collection system and biowaste treatment infrastructure to ensure that compostable packaging enters the biowaste stream, they may also require that other items be compostable on their territory.

These include, for example, non-permeable tea, coffee, or other beverage system single-serve units, excluding those made out of metal, as well as lightweight and very lightweight plastic carrier bags.

Finally, pursuant to Article 9§2(b), the Regulation also allows Member States to mandate the compostability of other packaging items. A specific Member State can thus establish an additional list of applications that need to be compostable in its territory (“a positive list”).

3. Why Member States should make additional packaging formats compostable under Article 9§2

Compostable packaging offers the greatest value for products that are typically food-soiled and delivers the greatest circularity benefits when items are:

- Frequently disposed of with biowaste and/or support the separate collection of biowaste;
- Difficult or uneconomical to recycle through conventional means.

We believe the following packaging applications should be considered the most suitable for compostability, provided that appropriate collection and treatment infrastructures exist:

- **Lightweight and very lightweight plastic carrier bags** – Often reused as bin liners, facilitating biowaste collection.

Lightweight and very lightweight carrier bags serve a dual function that conventional plastic bags cannot fulfil: they are a convenient way for shoppers to carry home groceries and can afterwards be used to collect kitchen biowaste.

Lightweight and very lightweight bags support the separate collection of biowaste. They are a convenient, clean, and hygienic tool that helps households collect more kitchen and garden waste while reducing the misthrow rate of conventional plastics in biowaste

streams. They are instrumental to fully implementing the separate collection of biowaste from households and are proven to lead to increased biomass input for compost production in industrial composting facilities as well as biogas production in anaerobic digestion plants.⁵

- **Compostable plastic coffee pods and capsules** – Ensuring organic recycling of coffee grounds

Coffee capsules are a part of modern everyday life. They need to combine high-performance requirements (such as brewing process, food contact, aroma barriers) with an efficient end-of-life solution. After they have been used, the organic content (coffee residue) and the capsules are difficult to separate, leading to confusion about the appropriate way of disposal as well as misthrows.

Coffee capsules made from fully compostable plastics provide the same technical performance while offering an alternative solution that can be organically recycled together with the organic content. Coffee grounds are highly desired in industrial composting plants as they contain valuable nutrients.⁶ Although some initiatives to recycle coffee capsules are being developed, the coffee grounds are usually not being recovered.⁷

- **Short shelf-life fruit & vegetable packaging** (e.g. berries, herbs, pre-washed salads) – thin film applications, usually disposed of with spoiled produce.

Food that is past its expiry date and is packed in conventional plastic packaging is usually not separated from its packaging.⁸ The plastic packaging together with its contents is usually either thrown into the biowaste bin, where it results in contamination or into the residual waste bin, where both the biowaste and plastic packaging are sent to incineration and are not kept in the circular economy loop.

- **Food-soiled paper/plastic composite packaging** – Often not suitable for paper or plastic recycling, e.g. salad bowls, burger wraps, ice cream cups, coffee cups and ready-to-eat-meal trays.
- **Cling film and bakery wraps** – Used for perishables and frequently food-soiled.

⁵ Kern, Michael; Siepenkothén, Jörg: Biowaste potential in household waste. Modelling a collection increase of biowaste from household waste. Müll und Abfall 07/2014. p. 356-360.

⁶ See answer Commissioner Sinkevičius on behalf of the Commission (19 January 2024): “The requirement for coffee capsules to be compostable under the PPWR proposal was based on the fact that they hold coffee grounds containing valuable plant nutrients such as potassium, phosphorus and nitrogen which can be used to enrich soil instead of being incinerated.” https://www.europarl.europa.eu/doceo/document/E-9-2023-003275-ASW_EN.pdf.

⁷ See for example the initiative of Nespresso, Nestlé and JDE Peet’s to collect the coffee capsules in the Blue bag in Belgium; <https://www.bettersorting.be/blog/koffiecapsules-in-de-blauwe-zak>.

⁸ Previous research by WRAP has shown that over 800,000 tonnes of food waste was thrown away in its packaging, around 12% of total food waste. Of this, 250,000 tonnes was unopened, this rises to 350,000 tonnes if including both unopened packs and those containing more than 75% of their contents. See, WRAP, Considerations for compostable plastic packaging (slide 12), https://www.wrap.ngo/sites/default/files/2025-06/UK_Plastics_Pact_Compostable_Packaging_Guidance_2025.pdf.

- **Small-format packaging for condiments, sauces, sugar, and creamers** – Hard to recycle due to their size and often highly soiled and disposed of with food.
- **Absorbent pads for meat, fish, fruit** – Highly soiled, not recyclable.

These applications are best composted due to frequent food contamination, likely presence in biowaste, or incompatibility with existing recycling technologies. Enabling their compostability promotes resource recovery, diverts biowaste from landfilling (where it would emit unnecessary GHG), and helps reduce plastic contamination in both compost and mechanical recycling streams. In addition, such applications will contribute to the nutrients being returned to the soil, bringing benefits to agriculture and ecological improvements.

Expanding on the list above, as compostable applications make sense for those applications that are highly food-soiled, the PPWR allows for them to be compostable (PPWR Article 25 (3)) as these would enable genuine circularity, particularly for those applications listed in Annex V (detailing Article 25), that are:

- plastic packaging for unprocessed fresh fruit and vegetables, for those that need a minimum amount of packaging;
- plastic packaging for food and beverages within the Horeca sector;
- plastic packaging for condiments, preserves, sauces, coffee creamer, sugar and seasoning in the Horeca sector.

4. Conclusion

By recognising that prevention and reduction are paramount in the EU waste hierarchy, and that compostable plastics are not intended to simply replace existing applications but offer innovative packaging as well as alternative end-of-life solutions, EUBP calls on the European Member States to consider proven applications for compostable plastics (see list above) when discussing the contribution of compostable plastics to a circular economy in the context of the PPWR implementation.

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About European Bioplastics

European Bioplastics (EUBP) is the European association representing the interests of the bioplastics industry along the entire value chain. Its members produce, refine, and distribute bioplastics, i.e., plastics that are biobased, biodegradable, or both. More information is available at www.european-bioplastics.org