

Calculation of recycled plastic content in PET bottles

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EU proposes methodology to calculate recycled plastic content in single-use plastic beverage bottles

Draft Commission Implementing Decision laying down rules for the application of Directive (EU) 2019/904 of the European Parliament and of the Council as regards the calculation, verification and reporting of data on recycled plastic content in single-use plastic beverage bottles and repealing Commission Implementing Decision (EU) 2023/2683, and Draft Annex

Update

The European Commission has published a draft methodology for calculating the recycled plastic content from all recycling technologies in single-use polyethylene terephthalate (PET) bottles.

What is changing?

The European Commission has proposed a methodology to calculate the recycled content in PET bottles from all recycling technologies. This proposal extends the existing methodology for mechanical recycling (e.g. shredding and melting, Decision 2023/2683) to other recycling technologies, especially chemical recycling.

This proposed methodology is intended to apply to:

- all recycled plastic parts contained in the body, cap, lid, labels, and sleeves of bottles
- recycled plastic content that comes from waste plastic products placed on the European Union (EU) market (“post-consumer plastic waste”).

Plastic waste from production or manufacturing waste is not included in the proposed calculation. Recycled plastic content does not include plastic waste that has been used as a source of energy for the recycling process.

Calculation

The amount of recycled plastic content in PET bottles – expressed as a percentage – is calculated by dividing the weight of the recycled plastic in these bottles by the weight of the total plastic parts of the bottles.

Requirements for non-EU operators

If PET bottles sold in the EU have been manufactured outside of the EU, EU importers and EU national competent authorities should verify the accuracy of the information that accompanies the material.

Non-EU operators must:

- provide a declaration stating the recycled plastic content of PET bottles with each batch of material exported to EU customers, using the template in Annex V
- keep declarations concerning recycled plastic content for at least 5 years
- pass the declarations received from their suppliers along the supply chain to their customers in the EU (see Plastic (including recycled) food contact materials).

Compliance

- Operators that recycle plastic to be incorporated into PET bottles will have to request third-party verification of the most complex stages of the recycling process every year (every 3 years for small and medium-sized enterprises, SMEs).
- EU operators will be responsible for checking their business partners' declarations regarding recycled content.
- EU national authorities (Member States) will conduct controls of the percentage of recycled plastic provided in the declaration of compliance.
- Additional requirements will apply to manufacturers of plastic bottles, particularly regarding third-party verification and traceability of recycled content.

Why?

The [Single-Use Plastics Directive](#) requires PET bottles less than 3 litres to be made with the following minimum recycled plastic content:

- 25% from 2025
- 30% from 2030.

These targets apply to PET bottles, including their caps and lids, but not to glass or metal beverage bottles with plastic caps and lids, or bottles used for medical purposes.

The European Commission is gradually setting rules to achieve these targets, including the methodologies to be used for calculation, verification, and reporting. Development of methodologies to calculate recycled content of PET bottles has followed a two-step approach:

- Defining a methodology covering mechanical recycling (Decision 2023/2683)
- This latest draft Implementing Decision expanding the methodology to include all recycling technologies, including chemical recycling.

The methodology for calculating chemically recycled content in new PET bottles is expected to boost chemical recycling and thus help operators meet the targets for recycled content set by the Single-Use Plastics Directive.

Timeline

The adoption of this methodology is planned for autumn 2025.

Recommended Actions

Feedback on the proposal closed on 19 August 2025.

Background

The objectives to reduce plastic waste generation and encourage reuse align with the European Chemicals Industry Action Plan ([European Commission 2025a](#)) which aims to strengthen the competitiveness and modernisation of the EU chemical sector. The European Commission ([2025b](#)) also proposes to simplify existing rules to reduce compliance costs and administrative burdens for the chemical industry.

While mechanical plastic recycling is usually preferred, the high food safety standards required by food (and beverage) plastic packaging can be better achieved through chemical recycling, despite the higher energy requirement.

This calculation methodology will serve as a model for future rules on recycled content in other sectors (see [Review of packaging and packaging waste rules](#)).

Resources

European Commission (2025a) [A European Chemicals Industry Action Plan](#)

European Commission (2025b) [Proposal](#) for a Regulation amending Regulations (EC) No 1272/2008, (EC) No 1223/2009 and (EU) 2019/1009 as regards simplification of certain requirements and procedures for chemical products

European Commission (2025c) [Proposal](#) for a Regulation amending Regulation (EU) 2024/2865 as regards dates of application and transitional provisions

Decision [2023/2683](#) laying down rules for the application of Directive 2019/904 as regards the calculation, verification and reporting of data on recycled plastic content in single-use plastic beverage bottles

Regulation [2022/1616](#) on recycled plastic materials and articles intended to come into contact with foods, and repealing Regulation 282/2008

Directive [2019/904](#) on the reduction of the impact of certain plastic products on the environment (Single-Use Plastics Directive)

Sources

[Draft](#) Commission Implementing Decision laying down rules for the application of Directive (EU) 2019/904 of the European Parliament and of the Council as regards the calculation, verification and reporting of data on recycled plastic content in single-use plastic beverage bottles and repealing Commission Implementing Decision (EU) 2023/2683, and [Draft Annex](#)

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