GREEN DEAL
Reliable Evidence for Applications of Plastic Recyclate

Proposal for Guidance on Claims

January 2022

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Introduction

This proposal for guidance for recycled plastic content claims has been prepared in the framework of the Green Deal Reliable evidence for applications of plastic recyclate. This Green Deal has been signed by, among others, the Dutch Minister for the Environment and Housing and the Dutch Minister of Economic Affairs and Climate Policy, NRK, NRK Recycling, PlasticsEurope Netherlands, NEN and a large number of market parties (SABIC, BASF, Morssinkhof-Rymoplast, Philips Electronics and Unilever). The aim is to develop a methodology to provide transparency on the percentage of recyclate in a semi-manufactured or finished product, which can thus be used to give reliable assurance of, or make reliable claims about, the percentage of recyclate in products. Claims may vary for different types of recycling processes, such as mechanical and chemical recycling.

To make the best use of available knowledge and experience, a working group was installed to prepare this proposal. Apart from members of the Green Deal, representatives from international associations (Plastics Recyclers Europe, European Plastic Converters) and certification schemes (ISCC, UL, RSB) took part in this working group.

Scope

This proposal focuses on claims for recycled plastic content in all type of products. The recyclate can be made using different types of recycling processes, such as mechanical and chemical recycling processes. The proposed guidelines are specified for each chain of custody model.
Specific attention is given to the mass balance model that is often used in chemical recycling (but not only) and to claims in business to consumer communication. The reason is that consumers and even companies are not familiar with the mass balance model. Most people expect that recycled content percentages refer to what is physically present in a product or packaging. Which is not the case for mass balance. In other sectors, the concept is more known or accepted. For instance: petrol blends E10 and B7 containing ethanol and biodiesel. This proposal is meant to contribute to a broad acceptance for wording/language that can be used for consumer facing recycled content claims related to the mass balance model, that will be used by the entire recycling sector and other partners in the value chain. In this way consumers and companies get to understand and trust these types of claims.

The proposal for guidance is in line with ISO 14021 on Environmental labels and declarations.

General principles for claims

The main principles for claims are that they should be:

1. Specific
2. Accurate: clear reference to certification system
3. Reliable: substantiated with facts, third party verified by accredited organisations
4. Understandable: information is clear and understandable to consumers
5. Accessible: all relevant background information is available

Specific principles for recycled plastic content

Several documents have been published that give guidance on claims, for recycled plastic content:

- ISO 14021 Environmental labels and declarations
- Governmental guidelines:
  - Dutch Authority for Consumers and Markets, *Rules of Thumbs for Sustainability Claims*, 2021
  - US FTC, *Green Guides*
  - EU, *Directive 2005/29/EC on Unfair Commercial Practices*. The UCPD does not provide specific rules on environmental claims. However, it provides a legal basis to ensure that traders do not present environmental claims in ways that are unfair to consumers.
- Private initiatives:
  - ISEAL Alliance, *Good Claims practice*, 2015
  - SPICE (Sustainable Packaging Initiative for Cosmetics), *Cosmetics Packaging Claims Guidelines*, 2020
  - ISCC 208, *Logos and claims*, 2021
  - RSB, *RSB Reactive Guidance on Advanced Products Claims*, 2019
  - UL 2809, *Environmental Claim Validation Procedure for Recycled Content*, 2021
  - ECOS, Rethink Plastics, #Break free from plastic, *Too good to be true? A study of green claims for plastic products*, 2021
  - RecyClass, Recyclability and Recycled Content Use of Claims Guidance, 2021
  - PolyCert Europe, https://www.polycerteurope.eu

Based on these documents, the following specific principles claims for recycled plastic content are relevant:

1. Claims for recycled content should be quantified by a percentage.
2. It should be clear whether the claim applies for the whole product or packaging, or to a certain component.
3. Clear reference should be made to certification.
4. The claim made should be appropriate for the chain of custody model used.

Chain of custody

There are several chain of custody models that can be used. ISO 22095:2020 provides the definitions of the different models and the corresponding requirements. As each chain of custody model represents a different level of physical presence of the specified characteristic in the output, the ISO standard provides general guidance on the application of the defined chain of custody models, including initial guidance on the circumstances under which each chain of custody model might be appropriate. ISO defines the following chain of custody models:

I. Models without mixing of certified material: Identity preserved and Segregated
II. Models with mixing of certified material: Controlled blending and Mass balance
III. Book and claim

This generic standard for chain of custody models has been published in October 2020. On December 8th, 2020 ISO/PC308 has decided that a suite of chain of custody standards will be developed within an ISO technical committee, starting with a mass balance and a book and claim standard. The scope of this TC is as follows: Standardization in the field of chain of custody (CoC) for all products and

associated processes with specified characteristics, with the aim of ensuring that associated claims are reliable.

In practice, the controlled blending model is the most applied model in mechanical recycling and some types of chemical recycling. The reason is that as additives or fillers are added to increase the mechanical properties of the recyclates. In segregation, no addition of non-recycled material is permitted which makes it difficult for recyclers, especially those doing high quality applications.

For thermochemical recycling, the mass balance model is often used. In mass balance, the amount of recycled content in the output matches (or does not exceed) on average and over a defined period of time the amount of plastic waste in the input. But there is no guarantee that the recycled content is physically present in the same percentage in every part of the output. Therefore, the recycled plastic in the input is allocated. This can be done as an average to all outputs or to a certain part of the output, after deduction of losses in the production process.

Allocation in mass balance
Allocation of the recycled input in a production process with multiple outputs can be done in a numer of ways:

- Proportional balance of product yields
- Polymers only: recycled input can only be allocated to the polymers that are produced; losses, internal energy loops and fuels in the product portfolio have te be excluded
- Fuels exempt: recycled input can only be allocated to non-fuel products; losses, internal energy loops and fuels in the product portfolio have te be excluded
- Free allocation: recycled input can be freely allocated after deduction of losses

Attribution of (physical or allocated) recycled content
Another form of allocation is not strictly exclusive to mass balance, but could be applied for controlled blending as well, as both chain of custody models deal with mixing of virgin and recycled content. However, in practice it is applied especially in combination with thermochemical recycling routes.
Example: if a company produces 100 kg product with 10% recycled content (regardless whether this is the physical measureable content or the the content calculated by one of the types of allocation that is described above). For the purpose of verification and/or marketing the recycled content can be established at 100 kg with 10% recycled content or 1 kg with 100% recycled content or an equivalent calculation (x kg * y % = 10 kg recycled plastic).

So far, there is no regulation on what types of allocation can be used in a mass balance approach. There are also no restrictions for attribution of the recycled content. Free allocation and attribution are allowed by most certification systems. However, there is opposition saying that percentage claims are misleading and financial optimisation is made possible, which is not possible for segregation and controlled blending.

Within the green deal no consensus is reached on what type of allocation should be used. Also at the European level there is an ongoing discussion on the methodology to be used to calculate recycled content in products, including mass balance allocation. The Commission shall draw implementing acts laying down the rules for the calculation and verification of the targets related to certain types of single-used plastic bottles under the directive (EU) 2019/904. On September 14th 2021, Eunomia presented preliminary results of a study to develop options for calculation, verification and reporting

of recycled content with a focus of setting out the rules for these implementing acts. It is expected that the Commission will define the rules for what type of chain of custody models can be used and what forms of allocation should be applied. A first proposal to be discussed with the member states is expected in Q2 2022. The members of the green deal will follow developments closely and adapt the guidance for claims as soon as legal rules will be proposed by the commission and after that on a regular basis (2-year basis).

Guidance for business to consumer claims

This guidance focuses on the business to consumer claims, especially those that are communicated on product or on package. Discussions in the working group that prepared this document showed great consensus that guidance was most needed in this area. Variations in the wording are possible, if this will not lead to a stronger claim than proposed for the respective chain of custody model.

I. Chain of custody models without mixing (fully in line with ISEAL)

	Characteristics	Credible wording
Identity preserved	Recycled content can be traced right to its source	Contains xx% Addition: comes/is from..
Segregation	Certified plastic waste input can come from different sources. No mixing with non-certified input of the same origin.	Contains xx%

No reference to the chain of custody model is needed in business to consumer communication. A logo of the certification system in combination with a written statement on the recycled content can be applied, or the percentage can be integrated in the logo. This is already common practice.

II. Chain of custody models with mixing

	Characteristics	Credible wording
Controlled blending	Mixing of certified plastic waste with non-certified inputs is allowed at any stage of the process resulting in a known proportion of the certified plastic waste in the final output for every delivery. Specified characteristics are also known and can be reported.	Contains xx%

* specify what type of material (fossil, biobased)

As mentioned earlier in this document, no agreement is reached on the mass balance chain of custody model. All green deal members support the use of mass balance, but they have different views on what allocation should be allowed. In the table below guidance for claims is given for mass balance including free allocation, as this is currently used in the market and there is no legislation yet that requires a more stringent form of allocation. These guidelines will be updated after the EC has decided on guidelines for the use of mass balance.

	Characteristics	Credible wording
Mass balance	Mixing of certified plastic waste with non-certified inputs is allowed at any stage of the process. Free allocation (after deducting of losses).	**Process claim = B2B:** The required material* resources for this product are substituted by recycled plastic waste. **Product claim = B2C:** <u>100% allocation/attribution:</u> Made with 100% attributed/allocated recycled content according to a certified mass balance approach <u>< 100% allocation/attribution:</u> This product is partially made from recycled plastics, in a certified mass balance process or This product is made from a mix of recycled and non-recycled plastic, in a certified mass balance process or Made with x% attributed/allocated recycled content according to a certified mass balance approach/process.

* specify what type of material (fossil, biobased)

The specific principle that claims for recycled content should be quantified is hard to reconcile with the concept of mass balance including free allocation. In business-to-business communication a process claim that is in line with ISO 22095 could be used with reference to the mass balance ("on average and over a certain period of time (= x month balancing period), the outputs contain a minimum of xx % material with specified characteristics (=recycled content)"). But in business to consumer claims the use of quantified claims for mass balance seem less appropriate.

Customers prefer claims with max 5-10 words, the fewer the better. However, a clear distinction must be made to make clear that a mass balance claim is based on calculation. Therefore it is essential that a mass balance % claim is explained by 'attributed/allocated' and a reference to 'mass balance approach/process'.

Claims for mass balance that are not in line with the general and specific principles are:

- "Made with recycled plastic" (not quantified, no reference to certification system, no reference to mass balance)
- "Cap and closure produced with certified recycled material" (not quantified, no reference to mass balance)
- "This packaging contributes to a circular economy" (not specific)

Annex 1: members of the working group

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