BLUE ANGEL

The German Ecolabel

Reusable packaging systems for transportation and shipping

DE-UZ 27

Basic Award Criteria

Edition January 2025

Version 2

The Environmental Label is supported by the following four institutions:

Federal Ministry
for the Environment, Climate Action,
Nature Conservation and Nuclear Safety

The Federal Ministry for the Environment, Climate Action, Nature Conservation and Nuclear Safety is the owner of the label. It regularly provides information on the decisions taken by the Environmental Label Jury.

Umwelt Bundesamt

The German Environmental Agency with its specialist department for "Ecodesign, Eco-Labelling and Environmentally friendly Procurement" acts as office of the Environmental Label Jury and develops the technical criteria of the Basic Criteria for Award of the Blue Angel.

Jury Umweltzeichen

The Environmental Label Jury is the independent, decision-making body for the Blue Angel and includes representatives from environmental and consumer associations, trade unions, industry, the trade, crafts, local authorities, academia, the media, churches, young people and the German federal states.

RAL gGmbH

The RAL gGmbH is the awarding body for the Environmental Label. It organises the process for developing the relevant award criteria in independent expert hearings – which involve all relevant interest groups.

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This document is a translation of a German original. In case of dispute, the original document should be taken as authoritative.

1 Introduction

1.1 Preface

In cooperation with the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection, the German Environmental Agency and considering the results of the expert hearings conducted by RAL gGmbH, the Environmental Label Jury has set up these Basic Criteria for the Award of the Environmental Label. RAL gGmbH has been tasked with awarding the Environmental Label.
Upon application to RAL gGmbH and on the basis of a Contract on the Use of the Environmental Label to be concluded with RAL gGmbH, the permission to use the Environmental Label may be granted to all products, provided that they comply with the requirements as specified hereinafter.
The product must comply with all the legal requirements in the country in which it is to be marketed. The applicant shall declare that the product meets this requirement.

1.2 Background

Packaging is necessary to protect and transport goods. However, the amount of packaging that is produced, used and consumed in Germany and the EU also poses a huge environmental challenge. A huge amount of primary raw materials are used in the production of the packaging. The increased use of packaging coupled with low reuse and recycling rates is hampering the development of a low-carbon circular economy[1].
In the transport packaging industry, PPC (paper, paperboard and cardboard) is the dominant packaging material. The study "Consumption and recovery of packaging waste in Germany" (Cayé et al. 2023; Burger und Cayé 2022), which is published periodically, indicated that around 3,600 kilotonnes of PPC and 580 kilotonnes of plastic were used for transport packaging in 2021. Wood and steel are other materials used for transport packaging. This packaging includes non-flexible packaging for the transport sector (such as plastic, metal and wood pallets and pallet boxes, heavy duty boxes and crates for the transport of goods), flexible transport packaging for bulk materials (such as big bags, transport sacks, e.g. laundry transportation bags and carpet tubes, crates for food and boxes) and non-flexible and flexible packaging for other applications.
More than 900 kilotonnes of packaging is also used annually for shipping goods from the online trade and other forms of remote sales. Cartons and trays made of corrugated cardboard also account for 90% of the packaging waste in the shipping packaging sector (see Reitz 2021) and the amount of waste is expected to increase further to almost 1,500 kilotonnes by 2030 (see Zimmermann und Rödig 2021).
Disposable packaging has dominated this sector up to now. With respect to transport packaging in the B2B sector, there are some isolated areas in which most of the transport is carried out using reusable packaging (e.g. reusable crates for spare parts in the automotive sector, various applications for steel pallets) but reusable solutions are usually the exception for the vast majority of packaging applications (Rödig et al. 2022). Some of these exceptions include big bags (such as those used in the construction and agricultural sectors) and also rigid reusable plastic packaging (such as boxes, crates and casks) used for a variety of different applications. At least

[1] Proposal for a Regulation of the European Parliament and of the Council on packaging and packaging waste, amending Regulation (EU) 2019/1020 and Directive (EU) 2019/904, and repealing Directive 94/62/EC

40% of wooden pallets are reusable (Rödig et al. 2022). Despite the emergence of an increasing number of reusable packaging system providers in recent times, less than one percent of shipping packaging (primarily in the B2C sector) is reusable (Rödig et al. 2022).
Yet reusable packaging has the potential to conserve resources, avoid waste and thus help to indirectly reduce greenhouse gas emissions. The waste hierarchy in the EU Waste Framework Directive and the German Circular Economy Act ranks waste prevention as the top priority. Reusable packaging can make an especially large contribution to achieving this fundamental environmental principle. An important prerequisite is that the reusable packaging can also actually be used as often as possible. This is dependent in turn on the reusable packaging system, in which the system operator monitors the number of usage cycles achieved and identifies any measures that need to be taken to amend the system.

The use of post-consumer recycled materials (PCR) is preferable for strengthening the circular economy and reducing the demand for primary raw materials. At the same time, it is clear that reusable packaging made either completely or in large part from primary materials can still be found especially in established reusable packaging systems and it is essential that these systems reduce their use of these materials.

1.3 Objectives of the Environmental Label

The ecolabel will be awarded to reusable packaging systems that guarantee that the reusable packaging within the system achieve a minimum number of usage cycles. This will help to reduce the use of packaging material and avoid waste.
The Basic Award Criteria also place requirements on the use of recycled materials and on the origin of biogenic materials. Furthermore, the ecolabel places high requirements on the recyclability of the reusable packaging so that it can still contribute to a circular economy even after the end of its service life.

Therefore, following benefits for the environment and health are stated in the explanatory box:

1.4 Definitions

Closed loop recycling system: A system for the recycling of materials (in this case the packaging) in which the secondary materials produced during the recycling process are used for the same purposes (in this case as packaging).

End user: A commercial customer or private end consumer of filled reusable packaging who returns the (generally empty) packaging or from whom the packaging is collected.

Placing on the market: the first making available of packaging for use in a reusable packaging system.

Contact-sensitive packaging: Packaging that is intended for packaging applications falling within the scope of the regulations (EC) No 1831/2003[2] on additives for use in animal nutrition, (EC) No 1935/2004[3] on food contact materials, (EU) No 767/2009[4] on feed, (EC) No 2009/1223[5], (EU) 2017/745 on cosmetic products, (EU) 2017/746[6] on in vitro diagnostic medical devices, (EU) 2019/4[7] on medicated feed, (EU) 2019/6[8] on veterinary medicines and 2001/83/EC on the Community code relating to medicinal products for human use[9].

Market launch: The market launch is understood as the date on which continuous operation of the reusable packaging system started. A limited pilot scheme with a clearly defined start and end date is not considered the market launch in this context.

Reusable packaging system: A system of packaging (here: transport packaging, shipping packaging and group packaging) and transport in which the packaging is used multiple times instead of disposing of it after a single use.
A reusable packaging system typically requires cooperation between various different actors. This can include, among others, the packaging manufacturer, distributors/wholesalers/retailers, private end consumers, operators of take back systems and logistics providers.
The "system operator" is responsible for ensuring that the system functions properly, i.e. the packaging is successfully reused within the system.

Reusable packaging: In the sense of these Basic Award Criteria, this includes (reusable) transport packaging, (reusable) grouped packaging and (reusable) shipping packaging that is designed to be used multiple times and – under normal, predictable conditions of use – can complete as many usage cycles as possible.

Deferred deposit: A type of deposit system used in some cases for reusable shipping packaging in the online trade in which the end user of the packaging is only charged the deposit if it is not returned within a defined period of time.

Usage cycle: The cycle that the reusable packaging undergoes from the time it is placed into circulation to hold (and/or protect, handle or deliver) its intended products until the time it is ready to be reused within the reusable packaging system for transporting products to the end user.

Performance parameters: Parameters for calculating the performance of the system.

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2 Regulation (EC) No 1831/2003 on additives for use in animal nutrition
3 Regulation (EC) No 1935/2004 on materials and articles intended to come into contact with food
4 Regulation (EG) No 767/2009 on the placing on the market and use of feed
5 Regulation (EC) No 1223/2009 on cosmetic products
6 Regulation (EU) 2017/746 on in vitro diagnostic medical devices
7 Regulation (EU) 2019/4 on medicated feed
8 Regulation (EU) 2019/6 on veterinary medicinal products
9 Regulation 2001/83/EC on the Community code relating to medicinal products for human use

Post-consumer recycling material (PCR material) according to ISO 14021: Material generated by households or by commercial, industrial and institutional facilities in their role as end users of the goods or service which can no longer be used for its intended purpose. A distinction is made between PCR materials and **post-industrial recycled material (PIR materials, alternatively called pre-consumer material)** , which are diverted from the waste stream during a manufacturing process.

Recyclability: In the sense of these Basic Award Criteria, recyclability is the fundamental ability of the packaging to be used as a substitute for new goods in typical applications for the material after undergoing industrial recovery processes and the degree to which it can be recycled.

Recycled material: Material that has been recovered from a waste flow using a recycling process.

Maturity: The period of time that the system has been available on the market and is "working" (time that has elapsed since the **market launch**). In these Basic Award Criteria, the performance of the system is evaluated over 5-year periods. (new < 5 years, under development 5-10 years; fully established > 10 years)

Return points: Locations where the reusable packaging can be directly returned to the system operator by end users of the packaged sales units or returned to the system operator via a service provider. If the reusable packaging is taken away again at the time of delivery or collected by or on behalf of the system operator, the return point is the place where it is taken away or collected.

System operator: The system operator is responsible for ensuring that the system functions properly, i.e. the packaging is successfully reused within the system. The system operator is also responsible for recording the number of usage cycles achieved. Its responsibilities can also include: providing the reusable packaging, the complete logistics for the take back and return of the reusable packaging and any measures that need to be taken so that this packaging can be reused (e.g. cleaning, sorting, …).

System participant: Any natural or legal person who participates in a reusable packaging system and performs at least one of the following actions: collects the packaging from (private or commercial) system participants (end users such as private end consumers or commercial customers) or reconditions it, distributes it among system participants, transports it, fills it with products, packs it or offers it to end users. A reusable packaging system can comprise one or more system participants that carry out these measures.

Transport packaging: Packaging designed to facilitate the handling and transport of sales units or grouped packaging in order to prevent damage to the product during its handling and transport, including shipping packaging such as e-commerce packaging but excluding road, rail, ship and air containers.

Grouped packaging: Packaging designed to constitute a grouping of a certain number of sales units at the point of sale (typically the retail or wholesale trade), irrespective of whether that grouping of sales units is sold as such to a (commercial or private) end user or whether it serves

as a means to facilitate the restocking of shelves at the point of sale, and which can be removed from the product without affecting its characteristics. It includes, for example, display packaging (packaging used to present or promote the sale of goods).
Sales packaging: Packaging designed to constitute a sales unit consisting of products and packaging for the end user at the point of sale.

Shipping packaging (transport packaging for the online trade): Packaging that enables or supports the shipping of goods to the end user. This is primarily packaging for the online trade or other forms of remote sales.

2 Scope

These Basic Award Criteria apply to reusable packaging systems for transport packaging, grouped packaging and shipping packaging, which are summarised below using the term "reusable packaging".

This includes:
- Non-flexible reusable packaging for the transport of goods
- Intermediate bulk containers (IBC) with plastic tanks
- Reusable plastic tanks
- Flexible reusable packaging for the transport of bulk materials (big bags)
- Other reusable transport sacks
- Heat preserving packaging (insulating packaging) for food
- Reusable crates for food
- Other reusable boxes and non-flexible packaging
- Other reusable bags and other flexible reusable packaging
- Reusable outer packaging
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If a system operator operates several different reusable packaging systems (e.g. for pallets, crates, big bags), it is possible to apply for certification of one single system.

Reusable packaging may not be sold as part of a reusable packaging system.
The following are excluded:
- (Reusable packaging systems for) containers to transport bulk materials
- Reusable packaging systems within the scope of the ecolabel DE-UZ 210 "Reusable packaging systems for the sale of takeaway ("to-go") food and beverages"
- Reusable packaging systems for sales packaging
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Some types of transport packaging can also be certified in accordance with ecolabel DE-UZ 30a "Products made from recycled plastics".

Reusable packaging may not be sold as part of a reusable packaging system

Further information on the scope of this ecolabel can be found in Appendix B.

3 Requirements

The applicant for this ecolabel is the system operator. It must be capable of providing the required verifications for each of the requirements.

3.1 Basic requirement: management of the reusable packaging system

Reusable packaging is usually advantageous in comparison to disposable packaging when it is part of an efficient and properly functioning reusable packaging system. The basic requirement for this is management of the reusable packaging system. The system operator is responsible for managing the system. This includes, in particular, recording the number of usage cycles achieved. By establishing suitable (management or governance) structures, the system operator ensures that the packaging can be reused and that all other objectives of the system are achieved. It must check that the system is functioning correctly and whether the system is enabling the reuse of the packaging as intended.
The responsibilities of the system operator may also include other measures associated with the provision of the reusable packaging (especially in closed loop systems), the complete take back logistics and creating the prerequisites for the reuse of the packaging (especially cleaning and sorting the reusable packaging).

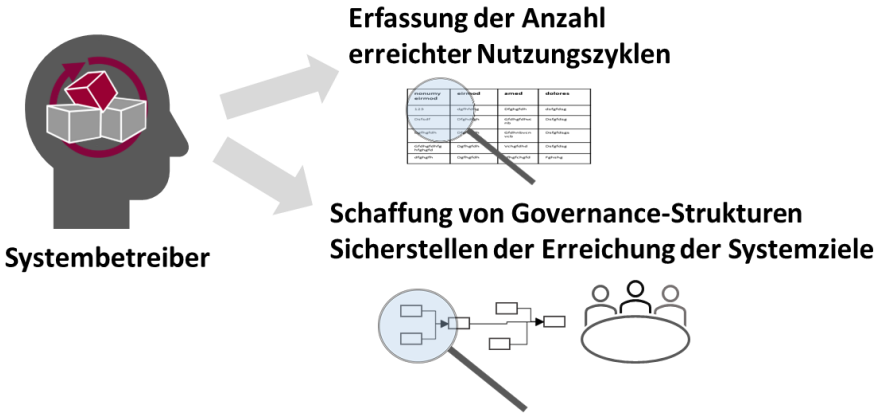

Figure 1: Key tasks of the system operator

Against this background, applicants who want to certify their reusable packaging systems with the Blue Angel must submit a description of the reusable packaging system that contains the following information:

General description of the system

- Name of the system / system operator
- System participants (actors participating in the system and their responsibilities with respect to the distribution of the packaging and the use, transport, return transport, preparation/checking/cleaning of the reusable packaging)
- Users of the system: B2B (business-to-business) or B2C (business-to-consumer), if relevant with information on the proportions of B2B and B2C users
- When the system was established / market launch (date)
- Description of any quality assurance measures / recording the number of usage cycles

Packaging in the system and their use

- Description of the reusable packaging (different types of reusable packaging) in the reusable packaging system:
  - Material (plastic polymer, paper, paperboard, cardboard, …)
  - Type of packaging (flexible bag, folding box, …)
  - Number of usage cycles for which the packaging is technically designed
- Description of the products that can be used, filled or transported in the system.
- Information on contact-sensitive packaging: Does the system contain contact-sensitive packaging? What proportion of the system do they account for?

Transport/return transport/preparation

- Description of the take back / return transport process: A return process has been clearly defined and communicated to customers.
- The existing incentive systems for the return of the packaging
  - Deposit / deferred deposit
  - Voucher / credit
  - Other? (name and describe the systems)
  - No incentive system
- Description of the measures to ensure the efficient return transport of the packaging
  - Stackability
  - Nestability
  - Foldable empty packaging
  - Use of empty capacities
  - If relevant, a description of other measures to ensure the efficient transport of the packaging

Compliance verification

The applicant shall submit the required information and descriptions in Annex 1 to comply with the requirements.

3.2 Designing the packaging to optimise the return transport

The reusable packaging may need to be transported again when returning it to the system. Therefore, the reusable packaging should be designed in such a way as to reduce the volume of so-called "dead space" taken up by the empty reusable packaging.
In this context, the ability to use the packaging for sending back returned goods is also considered an appropriate measure.

Compliance verification

The applicant shall submit a description of the measures taken to improve the efficiency of the return transport of the reusable packaging in Annex 1 (e.g. a description of the measures to reduce the volume of the packaging, such as by making the packaging nestable). The applicant shall also state any reasons preventing them from taking corresponding measures to optimise the return transport.

3.3 Recyclability of the packaging

The reusable packaging used in the reusable packaging system must have a high degree of recyclability. In accordance with the "Minimum standard for determining the recyclability of packaging" from the Zentrale Stelle Verpackungsregister (Central Agency Packaging Register – ZSVR)[10], the reusable packaging must be at least 90 percent recyclable.

The following packagings are exempt from the recyclability requirements: packaging made of at least 95% wood (solid wood; wood-based materials) and packaging made of at least 95% cotton or other natural fibres.

Compliance verification

The applicant shall submit a certificate for the reusable packaging (or the different types of packaging) from a qualified testing institution to verify that they have been certified in accordance with the minimum standards from the ZSVR according to § 7 (1) of the VerpackG. Any other standards (e.g. DIN EN 13430- Requirements for packaging recoverable by material recycling) that were taken into account must also be named.
The certificate must include information on the degree of recyclability of the reusable packaging in percent.

3.4 Requirements for the materials used

3.4.1 Recycled content

Due to the fact that too many primary materials are still being used, the following requirement applies to reusable packaging that was placed into circulation in the six months prior to application or will be placed into circulation within the reusable packaging system in future:

a) Packaging made out of plastics
The plastic used for the reusable packaging must contain at least 35% post-consumer recycled materials (as an average across all of the plastics used).

b) Packaging made from paper, paperboard and cardboard
In the case of reusable packaging that is fully or partially made from paper, paperboard and cardboard (PPC), these materials must be made of at least 75% recovered paper. Refer to DIN EN 643 for the specifications of the different grades of recovered paper.
The recovered paper must be sourced from ordinary, medium and kraft paper grades and special grades (groups 1, 2, 4 and 5). Recovered paper from better grades (group 3) is not permitted.

The following deviations from the requirements in Paragraph 3.4.1 a) and b) apply:

- A reduced minimum recycled content of 10% (from post-consumer recycled materials) applies to contact-sensitive packaging.
- A reduced minimum recycled content of 15% (PCR materials) applies to packaging that is recycled within a closed loop recycling system. This requirement will increase to 25% in

[10] https://www.verpackungsregister.org/fileadmin/files/Mindeststandard/Mindeststandard_VerpackG_2020.pdf https://www.verpackungsregister.org/fileadmin/files/Mindeststandard/Mindeststandard_2023_Konsultationsversion.pdf

2027 and 35% in 2029.
This reflects the fact that the establishment of closed loop systems is generally to be welcomed. However, reusable packaging systems that were recently established or are still growing do not have sufficient amounts of recycled materials to cover their material demands.

- A reduced minimum recycled content of 15% (PCR materials) applies to particularly lightweight reusable boxes, crates, bags and sacks. A prerequisite is that this packaging has a weight/volume ratio (the packaging weight in grams divided by the packing volume in litres) of less than or equal to 30 g/L. The minimum recycled content for this packaging will also increase to 35% in 2029.

Non-declared materials may only account for a maximum of 2% by mass of the finished product (reusable packaging).

Compliance verification

The applicant shall enclose a description of the composition of the reusable packaging (material composition, quantities of each material) with their application as Annex 2 and, if requested by RAL gGmbH, submit a reference product. The applicant must also list all of the materials and their contents according to their type. The origin (primary/PCR) of the materials must be specified. If recycled PPC is used, the applicant shall state the proportions of the different grades of recovered paper.

The following also applies to recycled plastics:
The applicant shall verify the origin and composition of the PCR plastics used in the packaging by submitting an appropriate certificate (including the report).
Certificates in accordance with the EuCertPlast certification scheme, the RecyClass certification scheme (for "Recycling Process"), the Global Recycled Standard (GRS) or a comparable certification scheme in accordance with EN 15343 or DIN EN 15343 (with calculated and plausibly justified verification of the proportion of post-consumer plastics used) will be accepted for the recycled plastics.[11]

The following also applies to recycled PPC:
The applicant shall declare compliance with the requirements and submit a written confirmation from the packaging manufacturer (Annex 3).

3.4.2 Origin of the wood

In the case of reusable packaging that is fully or partially made from wood that were placed into circulation in the six months prior to application or will be placed into circulation within the reusable packaging system in future, all of the processed wood must be sourced from legal and sustainably managed forests.
In addition, at least 70% of the wood or 70% of the primary raw materials for the wood-based materials must be from certified sources.

[11] See http://www.eucertplast.eu, https://recyclass.eu/, https://textileexchange.org/knowledge-center/documents/global-recycled-standard-grs/

Compliance verification

The applicant shall declare the legality of the wood sources in accordance with EU Regulation 995/2010[12] or submit a corresponding confirmation from his/her suppliers.
Compliance with the requirement for using wood from sustainable forestry can by verified in the following ways:
The applicant shall present a record of the woods used each year at the whole production site that specifies the percentage of certified woods used (Annex "Annual record of woods used at the site"). A valid certification number from the raw material supplier and an example delivery note that includes a corresponding statement on the certification of the material shall be submitted for certified wood. Certificates from the Forest Stewardship Council (FSC) and the PEFC (Programme for the Endorsement of Forest Certification Schemes) verifying sustainable forestry and a chain of custody (CoC) will be accepted. Comparable certificates and individual verifications are also possible and will be recognised if the applicant can verify compliance with the criteria defined by the FSC or PEFC for the relevant country of origin. As with the federal decree for the purchase of wood products, verification of comparability must be confirmed by the Thünen Institute or the BfN.
If the applicant themselves has chain of custody (CoC) certification according to FSC or PEFC criteria and the product is sold using PEFC or FSC product labels, the applicant shall state his/her valid certification number, declare compliance with the requirement in Annex 1 and submit the consumer information included with the product label. This means that the FSC/PEFC label/mark (FSC 100 %, FSC Mix or PEFC) must be printed on the product and/or the associated information. The manufacturer shall state the types of wood used and their countries of origin in the Annex "Annual record of woods used at the site".

3.4.3 Origin of other natural fibres

If the reusable packaging is fully or partially produced from textile natural fibres such as cotton, hemp and flax or textile materials such as linen, jute or wool, it must be ensured that at least 70% of the fibres are sourced from controlled organic cultivation or controlled biological animal husbandry or from fibres from the conversion phase[13].
The certification of products "in conversion" is only possible if the regulations on which the certification of the fibre production is based include the possibility of such certification for the fibres in question. However, they must be specially labelled in accordance with these regulations[14].

Compliance verification

The applicant shall declare compliance with the requirement in Annex 1. The following will be accepted:

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[12] The EU Deforestation Regulation (EU) 2023/1115 was enacted on 29 June 2023 and repealed Regulation (EU) 995/2010. Large and medium-sized businesses must comply with this regulation from 30 December 2025 onwards and small and micro businesses from 30 June 2026 onwards.

[13] "Conversion": transition from non-organic to organic farming within a given period of time

[14] Production within a given period of time during which the provisions concerning organic production have been applied; Regulation (EU) 2018/848 of the European Parliament and of the Council of 30 May 2018 on organic production and labelling of organic products and repealing Council Regulation (EC) No 834/2007;
https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:32018R0848&from=DE

Fibres labelled with the German organic logo (Bio-Siegel) or the EU organic logo ("Euro leaf") or in accordance with the American National Organic Programme (NOP). In addition, corresponding certificates from an internationally recognised certification body accredited by the IFOAM or in accordance with DIN EN ISO/IEC 17065 that verify compliance with recognised international or national ecological farming standards can be submitted.

3.4.4 Substance requirements

The use of the following materials in the production of the packaging used in the reusable packaging system is not permitted:

- Materials that contain substances on the list of candidates above a limit of 0.1% by mass.
- Materials that contain halogenated polymers, halogenated blowing agents or halogenated flame retardants.
- PCR materials made of PET, if they are sourced from the deposit system for drinks bottles.

Compliance verification

The applicant shall declare compliance with this requirement in Annex 4. If the applicant is not the manufacturer of the reusable packaging, the applicant shall submit a declaration from his/her suppliers or the suppliers of the corresponding system participant.

3.5 Requirements for the minimum number of usage cycles

3.5.1 Determining the maturity of the reusable packaging system. Minimum number of achievable usage cycles

The calculation method for determining the number of usage cycles is described in Appendix CAppendix C.

3.5.1.1 Non-flexible reusable packaging for the transport of goods

In the case of non-flexible reusable transport packaging that is primarily designed for the transport of goods (e.g. freight transport, rail freight transport) (1), such as pallets, pallet boxes, intermediate bulk containers (IBC, bulk containers, pallet tanks), the applicant must verify that the packaging has achieved an average number of usage cycles of at least 30.
In the case of (reusable) IBC with plastic tanks (2), the requirement for 30 usage cycles only applies to the mesh container. The (reusable) plastic tank (3) must achieve an average number of usage cycles of at least 5.

Compliance verification

The applicant shall submit a written declaration confirming that the required average number of usage cycles has been achieved and document in Annex 5 the calculation process carried out in accordance with the calculation method in Appendix C.

3.5.1.2 Flexible reusable packaging for transporting bulk materials

In the case of flexible reusable packaging that is designed for the transport and storage of bulk goods such as sand, gravel, demolition waste and similar materials, so-called big bags (FIBC,

Flexible intermediate bulk container) (4), the applicant must verify that the packaging has achieved an average number of usage cycles of at least 5.

Compliance verification

The applicant shall submit a written declaration confirming that the required average number of usage cycles has been achieved and document in Annex 5 the calculation process carried out in accordance with the calculation method in Appendix C.

3.5.1.3 Other reusable transport sacks

In the case of other reusable transport sacks (5), e.g. laundry transportation bags, the applicant must verify that the packaging has achieved an average number of usage cycles of at least 30.

Compliance verification

The applicant shall submit a written declaration confirming that the required average number of usage cycles has been achieved and document in Annex 5 the calculation process carried out in accordance with the calculation method in Appendix C.

3.5.1.4 Heat preserving packaging (insulating packaging) for food

In the case of heat preserving packaging (insulating packaging) for food (6), the applicant must verify that the packaging has achieved an average number of usage cycles of at least 100.

Compliance verification

The applicant shall submit a written declaration confirming that the required average number of usage cycles has been achieved and document in Annex 5 the calculation process carried out in accordance with the calculation method in Appendix C.

3.5.1.5 Reusable crates for food

In the case of reusable crates for food (7) (crates in the sense of DIN 55405)[15], the applicant must verify that the packaging has achieved an average number of usage cycles of at least 40.

Compliance verification

The applicant shall submit a written declaration confirming that the required average number of usage cycles has been achieved and document in Annex 5 the calculation process carried out in accordance with the calculation method in Appendix C.

3.5.1.6 Other reusable boxes and non-flexible packaging

In the case of other reusable boxes (crates) (8) (which do not fall under Paragraphs 3.5.1.1 to 3.5.1.5), the applicant must verify that the packaging has achieved an average number of usage

[15] stackable and stable packaging primarily designed for the transportation and storage of food (e.g. fruit, vegetables, fresh fish) made of a) wood (consisting of a base, two sides and two head sections (lids), connected with corner strips that usually protrude at the top); b) moulded plastic or foam plastic in box form; c) solid board or corrugated board, usually in a box shape; d) a combination of materials of various designs

cycles of at least 20. This also includes, for example, reusable boxes and crates used for shipping products in the online trade.

The following deviations from the above-mentioned requirement apply: In the case of other reusable boxes (crates) (which do not fall under Paragraphs 3.5.1.1 to 3.5.1.5) with a ratio of packaging weight to internal volume of less than 30 g/L, it is sufficient for the applicant to verify that the packaging has achieved an average number of usage cycles of at least 15.
In the case of reusable boxes designed for shipping products in the online trade that are produced using at least 95% PPC and have a ratio of packaging weight to internal volume of less than 30 g/L, it is sufficient for the applicant to verify that the packaging has achieved an average number of usage cycles of at least 5.

Compliance verification

The applicant shall submit a written declaration confirming that the required average number of usage cycles has been achieved and document in Annex 5 the calculation process carried out in accordance with the calculation method in Appendix C.
If the deviations due to the low weight/volume ratio of the packaging apply and the applicant verifies that the packaging has achieved an average number of usage cycles of at least 15, or at least 5 for PPC materials, the applicant shall also submit documentation for how the weight/volume ratio was calculated.

3.5.1.7 Other reusable bags and other flexible reusable packaging

In the case of other reusable bags and other flexible reusable packaging (9) (which do not fall under Paragraphs 3.5.1.1 to 3.5.1.6), the applicant must verify that the packaging has achieved an average number of usage cycles of at least 12. This also includes, for example, reusable bags used for shipping products in the online trade.

Compliance verification

The applicant shall submit a written declaration confirming that the required average number of usage cycles has been achieved and document in Annex 5 the calculation process carried out in accordance with the calculation method in Appendix C.

3.5.1.8 Reusable grouped packaging

In the case of reusable outer packaging (10) (packaging primarily designed for the restocking of shelves at the point of sale or in the retail trade and which contains a certain number of sales units), the applicant must verify that the packaging has achieved an average number of usage cycles of at least 20.

Compliance verification

The applicant shall submit a written declaration confirming that the required average number of usage cycles has been achieved and document in Annex 5 the calculation process carried out in accordance with the calculation method in Appendix C.

3.5.2 Determining the maturity of the reusable packaging system

Reusable packaging is environmentally advantageous if it can be reused as often as possible and achieves an appropriate number of usage cycles.
The following applies:

1) In the case of reusable packaging systems that have been on the market for at least ten years:
   a) The average number of usage cycles achieved must be determined using the calculation method and must comply with the minimum figures stated in Paragraph 3.5.1.
   b) In the case of reusable packaging systems that have experienced a relative growth in the number of pieces of packaging in the system of at least 20% in more than one of the last ten years, the number of usage cycles achieved over the last ten years can be calculated and reported instead. In the year before the year in which the application is submitted, the number of usage cycles achieved must be at least 50% of the minimum figures stated in Paragraph 3.5.1 for the usage cycles. Before and after the phases in which the number of pieces of packaging increased, it must be possible to identify and demonstrate a constantly increasing trend in the number of usage cycles achieved.
   In addition, the applicant must report on the further development of the number of usage cycles achieved every 24 months during the term of the ecolabel.

2) In the case of reusable packaging systems that have been on the market for between five and ten years:

   The average number of usage cycles achieved must be determined using the calculation method and must comply with the minimum figures stated in Paragraph 3.5.1.

   or

   Calculation and reporting of the number of usage cycles achieved over the last five years. In the year before the year in which the application is submitted, the number of usage cycles achieved must be at least 50% of the minimum figures stated in Paragraph 3.5.1 for the usage cycles and a rising trend in the number of usage cycles achieved must be identifiable. In addition, the applicant must report on the further development of the number of usage cycles achieved every 24 months during the term of the ecolabel.

3) In the case of reusable packaging systems that have been on the market for less than five years:

   The average number of usage cycles achieved must be determined using the calculation method and must comply with the minimum figures stated in Paragraph 3.5.1.

   OR

   Information on the return options and incentive systems (according to Paragraph 3.5.3) must be produced.

AND

Reporting on the key performance parameters for the system (according to Paragraph 3.5.4) must be produced.

Compliance verification

The applicant shall verify how long the system has been on the market since its market launch by submitting the documentation for Paragraph 3.1.
If the alternative in point 1) b (reusable packaging systems that have experienced a relative growth in the number of pieces of packaging in the system of at least 20% in more than one of the last ten years) is being used, the applicant shall submit a time series showing the numbers of new, additional pieces of reusable packaging added over the previous years.

3.5.3 Verifications for the incentive system and return options

In the case of the reusable packaging in point 3 of Paragraph 3.5.2, the following applies:

- An incentive system for the return of the packaging must have been established and
- return points must be available locally.

The incentive system can be e.g. a deposit system, a deferred deposit system, a voucher system or another incentive system or take back options that are contractually agreed (e.g. in the B2B sector).

Compliance verification

The applicant shall confirm the existence of an incentive system in writing and describe its characteristics in Annex 1.
The applicant shall state the type and number of return points. No other verifications are required if the packaging is taken away again at the time of delivery or collected. The same applies for the return delivery of the packaging using a postal or parcel service (taken away by them again at the time of delivery or returned to the post office or parcel shop).
If other return points are used, the applicant shall confirm that the average distance to the return point is less than 5 kilometres.

3.5.4 Reporting on the performance of the system

Alongside the requirements for the take back of the packaging and the incentive system, the applicant must also report on key parameters for the performance of the reusable packaging system.
Information on the following parameters must be submitted annually both for the last 24 months (or since the system was launched on the market) and for the total time since the market launch:

- Total number of pieces of reusable packaging in the system
- Monthly usage of all packaging
- Number of pieces of reusable packaging removed from the system due to damage, visual wear and tear or for other reasons or which were not returned.
- Duration of an average usage cycle (if necessary, based on a professional estimate)

- Alternatively: The maximum time the packaging remains with the end user until it is returned or sent back (a maximum of 4 weeks is permitted)

Compliance verification

The applicant shall state the above-mentioned parameters in Annex 1.

3.6 Use of disposable packaging aids

The design of the packaging should minimise the use of disposable packaging aids.

Compliance verification

The applicant shall declare compliance with the requirement in Annex 1 and submit a plausible explanation for how this will be achieved.
The applicant shall describe any necessary disposable packaging aids (e.g. closing devices such as adhesive tape, straps, information and security measures such as labels, seals and plaques; cushioning material[16] such as air cushions or cushioning) and explain their purpose in the reusable packaging system and why they cannot be replaced.

3.7 Labelling of the packaging

Due to the possibility that it will be assumed that the contents of the reusable packaging are certified with the Blue Angel, the logo should either not be printed on the reusable packaging at all or the explanatory box must be depicted next to the logo. The explanatory box should be displayed as follows:

This reusable packaging is part of the reusable packaging system "*name*" and has been certified with the Blue Angel environmental label (DE-UZ 27 (Edition January 2025); *contract number*)

If the Basic Award Criteria are revised, any packaging labelled with the now expired Blue Angel ecolabel can still be used within the reusable packaging system. The packaging labelled with the expired Blue Angel ecolabel will be removed from the system later on during normal operations at the end of its service life and sent for recycling. By labelling the packaging with the version number and the issue date, it makes it possible to differentiate between packaging with valid and invalid certification.

Compliance verification

The applicant shall declare compliance with the requirement in Annex 1 and submit a photo of the reusable packaging to verify compliance with the requirement.

[16] The system operator is not usually able to influence the use of cushioning material and this is considered outside of the scope of these Basic Award Criteria.

In addition, the applicant shall submit an image/photo of the packaging, the packaging design or a template for the product label to verify that the labelling of the certified reusable packaging system complies with the required elements of the labelling requirements.

3.8 Outlook

In the event of a future revision of the Basic Award Criteria, the following requirements will be examined in particular:

- Recycled content of the packaging: The current legal regulations will be examined, including any deviations for contact-sensitive packaging and closed loop recycling systems.
- Minimum number of usage cycles achieved: The level of ambition (high) and the level of differentiation according to the type of packaging will be examined. This includes examining the extent to which (further) differentiation based on the type of material is necessary.
- Possible definition of different requirements for grouped packaging with respect to the materials used and the minimum number of usage cycles.
- Defining different requirements for efficient logistics: Can additional requirements for reducing the volume of the packaging be introduced?
- Requirements for reducing the use of disposable packaging aids: Is it possible to introduce obligatory requirements in this area?
- Creating "Good Rules" for the use of reusable packaging.
- Strength/stability tests for the packaging: Possible additional requirements on the durability of the packaging.

4 Applicants and Parties Involved

System operators according to Paragraph 2 shall be eligible for application.

Parties involved in the award process are:

- RAL gGmbH to award the Blue Angel Environmental Label,
- the federal state being home to the applicant's production site,
- Umweltbundesamt (German Environmental Agency) which after the signing of the contract receives all data and documents submitted in applications for the Blue Angel in order to be able to further develop the Basic Award Criteria.

5 Use of the Environmental Label

The use of the Environmental Label by the applicant is governed by a contract on the use of the Environmental Label concluded with RAL gGmbH.

Within the scope of such contract, the applicant undertakes to comply with the requirements under Paragraph 3 while using the Environmental Label.

Contracts on the Use of the Environmental Label are concluded to fix the terms for the certification of products under Paragraph 2. Such contracts shall run until December 31, 2029.
They shall be extended by periods of one year each, unless terminated in writing by March 31, 2029 or March 31 of the respective year of extension.

After the expiry of the contract, the Environmental Label may neither be used for labelling nor for advertising purposes. This regulation shall not affect products being still in the market.

The applicant (manufacturer) shall be entitled to apply to RAL gGmbH for an extension of the right to use the ecolabel on the product entitled to the label if it is to be marketed under another brand/trade name and/or other marketing organisations.

The Contract on the Use of the Environmental Label shall specify:

- Applicant (system operator)
- Brand/trade name, product description
- Distributor (label user), i.e. the above-mentioned marketing organisations.

Appendix A Cited legislations and standards, literature

Burger, Alexander; Cayé, Nicolas (2022): Aufkommen und Verwertung von Verpackungsabfällen in Deutschland im Jahr 2020 (Consumption and recovery of packaging waste in Germany in 2020). Published by the German Environment Agency (UBA). Association of Packaging Market Research (GVM). Dessau (UBA Text, 109/2022). Available online at https://www.umweltbundesamt.de/sites/default/files/medien/11850/publikationen/109_2022_texte_aufkommen_und_verwertung_von_verpackungsabfaellen.pdf, last checked on 11/06/2024.

Cayé, Nicolas; Marasus, Stefan; Schüler, Kurt (2023): Aufkommen und Verwertung von Verpackungsabfällen in Deutschland im Jahr 2021 (Consumption and recovery of packaging waste in Germany in 2021). Published by the German Environment Agency (UBA). Association of Packaging Market Research (GVM). Dessau (UBA Text, 162/2023). Available online at https://www.umweltbundesamt.de/sites/default/files/medien/11850/publikationen/162_2023_texte_aufkommen_verpackungsabfaelle.pdf, last checked on 11/06/2024.

DIN EN 643:2014-11, November 2014: Paper and board - European list of standard grades of paper and board for recycling.

Reitz, Alexander (2021): Verbrauch von Versandverpackungen in Deutschland. In: Müll und Abfall (4) (Consumption of shipping packaging in Germany. In: Rubbish and Waste (4)). DOI: 10.37307/j.1863-9763.2021.04.04.

Rödig, Lisa; Jepsen, Dirk; Falkenstein, Anna; Zimmermann, Till; Hauschke, Fynn; Cayé, Nicolas et al. (2022): Förderung von Mehrwegverpackungssystemen zur Verringerung des Verpackungsverbrauchs. AP1: Überblick: Aktuelle Einsatzbereiche von Mehrwegverpackungen AP2: Mögliche Maßnahmen zur Stärkung und Verbreitung von Mehrwegverpackungen im Getränkebereich (Promotion of reusable packaging systems to reduce packaging consumption. WP1: Overview: Current areas of use for reusable packaging WP2: Possible measures for strengthening and disseminating reusable packaging in the beverage sector). Published by the German Environment Agency (UBA). Ökopol – Institute for Environmental Strategies. Dessau (UBA Text, 148/2022). Available online at https://www.umweltbundesamt.de/sites/default/files/medien/11850/publikationen/20230818_texte_148-2022_foerderung_von_mehrwegverpackungssystemen_zur_verringerung_des_verpackungsverbrauchs.pdf, last checked on 11/06/2024.

ISO 14021: Environmental labels and declarations - Self-declared environmental claims (Type II environmental labelling) (ISO 14021:1999 + Amd 1:2011); German and English version EN ISO 14021:2001 + A1:2011.

DIN EN 13430, October 2004: Packaging - Requirements for packaging recoverable by material recycling.

DIN 55405, 2014: Packaging - Terminology - Terms and definition.

Zimmermann, Till; Rödig, Lisa (2021): Das Projekt praxPACK. Auf dem Weg zu praxistauglichen Mehrwegversandverpackungen für den Onlinehandel. In: Müll und Abfall 53 (4), S. 196–

200 (The praxPACK project. On the path towards practical reusable shipping packaging for the online trade, In: Rubbish and Waste 53 (4), p. 196–200). Available online at 10.37307/j.1863-9763.2021.04.05.

Appendix B Further information on the scope

The design of the reusable packaging system can vary considerably with respect to the participating actors and their inclusion in the system, the type of organisation and the business model. Examples of possible actors participating in the system are illustrated in the following diagrams:

1)

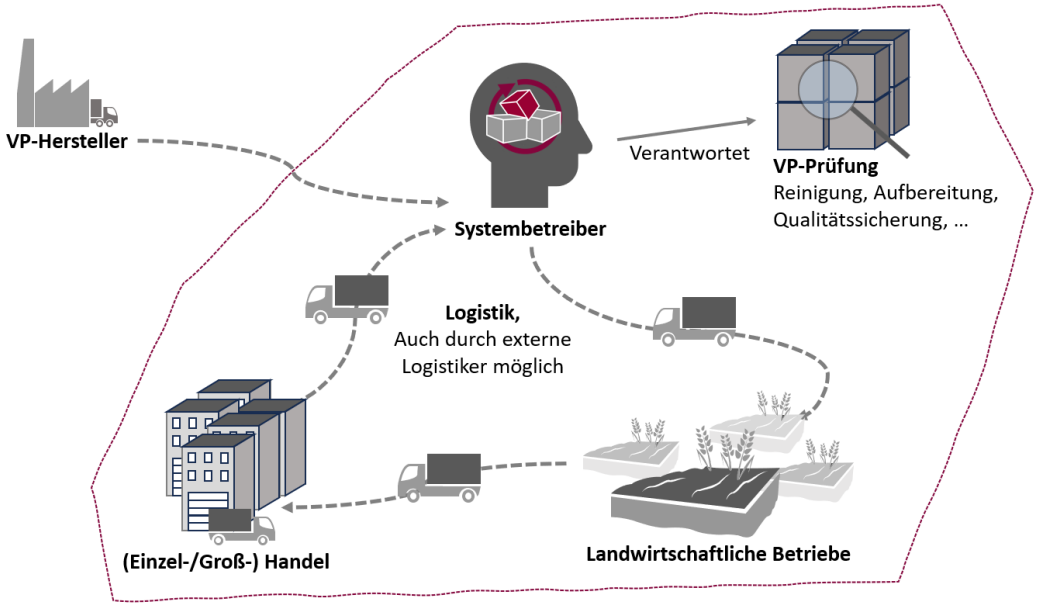

Figure 2: An example of a system constellation with an external packaging manufacturer

2)

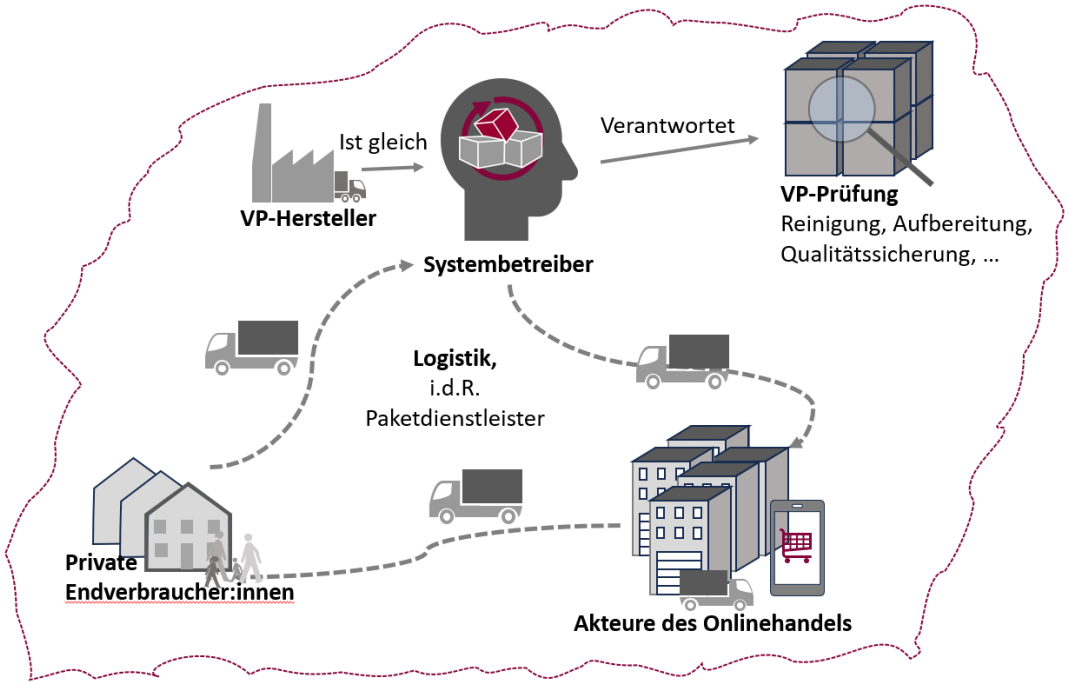

Figure 3: An example of a constellation where the packaging manufacturer is the system operator

3)

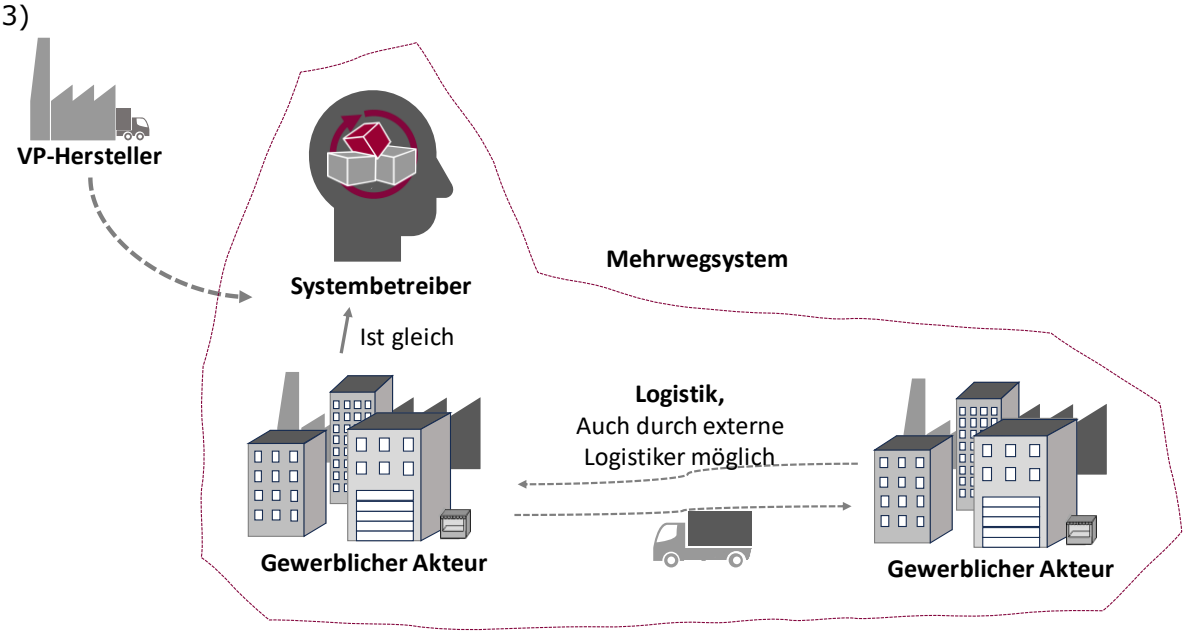

Figure 3: An example of a constellation where the commercial actor is the system operator

These diagrams clearly demonstrate how different the reusable packaging systems can be with respect to the participating actors, type of organisation and type of business model. In the context of these Basic Award Criteria, the key characteristic is also the existence of a "system operator" who is responsible for ensuring that the system functions properly, i.e. the packaging is successfully reused within the system.

Appendix C Calculation method for determining the number of usage cycles achieved

The average number of usage cycles achieved (U) by all of the reusable packaging within the system is calculated as follows:

$$U = \frac{Anzahl\ aller\ Nutzungen\ der\ Mehrwegverpackungen}{Anzahl\ aller\ je\ eingesetzten\ Mehrwegverpackungen}$$

The measurement period should ideally be the entire period since the market launch of the system, with the corresponding numerator and denominator.
Alternatively, a measurement period of five years can be used. The number of times the packaging has been used in the last five year should be used for the calculation. In this context, a new usage cycle begins when the (taken back, prepared) reusable packaging is (re-) filled.
The denominator is the initial stock of reusable packaging at the start of the five year period plus the number of pieces of reusable packaging newly placed into circulation within the five year period.

The duration of an average usage cycle must also be stated.