

# ecoloop.network

a mission to build trust and incentivise for the use of waste-based plastics

## general requirements

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## 1. Introduction

The aim is to promote and increase plastics recycling at a high level and the use of waste-based plastics.

**ecoloop** is a certification-program for plastic producers, recyclers as well as processors and manufacturers of plastic products.

This certification gives its customers the assurance that their products make a contribution to the circular economy through the use of waste-based plastics. All companies that have their products certified supported the network to increase the need and demand for waste-based plastics.

The certification system itself operates according to various standards: EN ISO 14021:2016, TÜV SÜD CMS 71, EuCertPlast and RAL UZ 30a and is a certification of products.

On a broad basis, ecoloop enables certification at various levels of the value chain, which documents the respective contribution to the circular economy and is intended to promote the use of waste-based plastics.

## 2. Glossary

To ensure that all parties have the same understanding of the terms used, the terms are defined as follows for our certification programs:

### **Waste**

All materials or objects which the holder disposes of or intends to dispose of or has to dispose of

### **Landfill**

Landfill for the disposal of waste on or in land under controlled or regulated conditions

### **minor discrepancy**

Minor discrepancy during the audit that the certified company must rectify within 3 months. If a deviation is not corrected within 3 months to the satisfaction of the inspector, the certification should be withdrawn.



### **Agglomerate**

Agglomerated crushed and/or granulated plastic material in the form of adherent particles

### **Plant capacity**

The theoretical maximum capacity of the company's plants in terms of the weight of input waste plastic that they can include in the recycling process to produce a recycled output.

### **Batch**

quantity of the material that is considered as a single unit and has a unique reference.

### **best practice**

A high standard in terms of recycling process management, environmental performance and going beyond the minimum legal requirements of each country.

### **biological recovery**

aerobic (composting) or anaerobic (fermentation) treatment of biodegradable plastic waste under controlled conditions using microorganisms to produce stabilized organic residues, carbon dioxide and water in the presence of oxygen or, in the absence of oxygen, stabilized organic residues, methane, carbon dioxide and water.

### **biological degradation**

Degradation by biological activity, in particular by enzymatic action, which leads to a significant change in the chemical structure of a material.

### **booking period**

The last 12 months before certification. A quantity comparison of all sites contained in the system boundary must be carried out annually: It must be demonstrated that there were sufficient inputs to produce the RAP, taking into account production losses.

### **Chain-of-Custody**

A system for documenting and verifying the path of a suitable input material through all stages of transfer and production to the end product. RMUs are transmitted here.



### **Charge**

see Batch

### **close loop Recycling**

Closed loop recycling is a recycling process in which a manufactured product is returned to itself or a similar product without significant degradation or waste.

### **Converter**

Specialized operator capable of forming plastic raw materials into a usable semi-finished or finished product.

### **Depolymerization**

Chemical reversal of a polymer into its monomer(s) or into a polymer having a lower molecular weight

### **Input**

The total weight of the material fed to the process during a given period.

Energy recovery Generation of useful energy through direct and controlled combustion

### **extended loop**

a method that goes beyond closed loop recycling by allowing controlled material and geographical flexibility to adapt to the mass balance of a raw material basket.

### **fine grinding**

a process in which a plastic is ground to a fine powder.

### **Flakes**

The shape of the ground material depends both on the plastics to be processed and on the type of processing.

### **Fluff**

filament-like ground material

### **mixed plastics**

Material or product mixture of different plastics



### **Distributor**

Any company acting in the role of the principal to purchase plastics or waste (or pay for disposal/free acceptance) and then sell (or pay for treatment or disposal/free disposal), including those distributors who do not physically own the above material flows.

### **homogenize**

processing to improve the uniform distribution of a component and/or a property over a quantity of plastic material

### **ecoloop-Input**

The raw material required for the product to be certified.

### **Contamination**

undesirable substance or material

### **Plastic oil**

Oil produced on the basis of plastic wastes

### **Lot**

see batch

regrind crushed and/or granulated plastic residues in the form of free-flowing material

### **Material recovery**

Material preparation including mechanical recycling, material (chemical) recycling and organic recycling, but excluding energy recovery.

Mechanical recycling Processing of plastic waste into secondary raw materials or products without significant change in the chemical structure of the material

### **Plant capacity**

The operating capacity of the company's plants in relation to the weight of the material they have included in the process to produce a product. It is the calculated capacity value based on the consumption values in the period under consideration, taking into account the planned production hours, the throughput and the determined availability of the plant.



### **Open loop recycling**

is a recycling process in which the plastic waste used is processed into both new raw materials and waste products. Typically, plastic waste that is recycled as part of open-loop recycling is used for purposes other than its previous purpose. This means that the input into the recycling process is transformed into a new secondary raw material that can be used as input into another manufacturing process.

### **certified product**

Product for which certification according to the ecoloop test catalogue is requested

### **organic recycling**

controlled microbiological treatment of biodegradable plastic waste under aerobic or anaerobic conditions

### **part**

Lot of a given quantity of goods manufactured under conditions considered to be uniform.

### **Post consumer**

Descriptive term for material produced by end-users of products that have fulfilled their intended purpose or can no longer be used (including material returned from the distribution chain).

### **Pre consumer**

descriptive term for material diverted during a manufacturing process

### **RAP: Recycling Allocated Product**

Recycling Allocated product, a product that affects the procurement of raw materials. A RAP is produced according to the mass balance principle: The eligible raw materials must be used physically in their value chain. The quantity of suitable raw materials required per RAP is determined in a standardized way. A physical link between the source of the eligible raw materials and the site or RAP production is required. An RAP is a carrier of RMUs (raw material units).

### **Recovery**

Processing of plastic waste for the original purpose or for other purposes, including energy recovery



### **Recycling**

Processing of plastic waste for the original purpose or for other purposes other than energy recovery

### **Subcontractor**

A third company that manufactures products for the company applying for certification. The applicant company retains ownership of the products produced in this process. The input material may be provided by the applicant company itself or by the third company.

### **certified process**

A process that produces a certified product for which certification is sought.

### **Recyclate**

Recycled plastic (Recyclate), which is produced as part of the recycling process and can be used as a substitute for pure polymer or other raw materials for the manufacture of products (excluding products for the production of energy).

### **RMU capability**

is required to establish the physical link between different locations (system boundaries) of a chain of custody. If there are sufficient transports of substances from one site to another, these can be regarded as contiguous for comparison with the mass balance.

### **RMU: Raw Material Unit**

is the unit of measurement for the quantity and value of recycled or bio-based raw materials as a substitute for fossil raw materials. - RMUs arise when recycled or bio-based raw materials with fossil raw materials are fed into a chemical production unit. - RMUs shall not be produced if the production of the chemical production unit is marketed as "recycled or bio-based" (no double counting test).

### **feedstock**

resource

### **Raw material recycling**

Transformation into monomer or production of new raw materials by changing the chemical structure of plastic waste by cracking, gasification or depolymerisation, excluding energy recovery and incineration.

**Collection**

logistical process of shipment of plastic waste from the source to a place where it can be recovered.

**shredding**

any mechanical process in which plastic waste is broken down into irregular pieces of any size and shape (shredding is generally understood to mean the shredding of materials that cannot be shredded by the shredding process typically used in a hammer mill).

**Wash ware**

Material produced when polymer is passed through a plastics processing plant for the purpose of cleaning the plant or when changing from one polymer to another or when changing from one colour or type of polymer to another.

**System boundary**

All locations and production units that are covered by the entire logistics network of a brand are considered as one unit in order to bring the input (eligible raw materials) in line with the output (sum of the RAPs produced). Within a system boundary, RMUs can be freely assigned to a RAP.

**Environmental aspect**

Element of an organisation's activities or products or services that can interact with the environment [ISO 14001:2004].

**Environmental Impact**

Any change in the environment, whether negative or beneficial, in whole or in part, resulting from the environmental aspects of an organisation.

compact Process in which plastic waste is bundled, compacted and secured to facilitate handling, storage and transport.

**Certificate**

Certification for the product manufactured according to the ecoloop criteria.

**Pre-consumer**

Descriptive term for material that is diverted from the waste stream during a manufacturing process.



### **Re-use**

Multiple use of a product in its original form

### **crushing**

see shredding

### **Certification**

Certification according to the ecoloop test criteria

### **Recovered material**

Plastics that have been separated, discharged or removed from the solid waste stream to be recycled or used as a substitute for new raw materials.

### **requesting company**

Company that has requested the certification of products

### **Contract processors**

see subcontractors

### **monitoring audit**

Annual inspection of certified products

### **Verbund site**

Verbund networks production plants, energy flow and infrastructure as well as know-how. This results in efficient value chains - from basic chemicals to highly refined products. By-products from a factory can be used as input materials at another point. Chemical processes can be carried out in combination with low energy input and high yield of products to conserve resources.

### **Intermediates**

Intermediates are substances that are manufactured from raw materials and in turn serve as starting materials for products.

standard recipe A standard recipe is a plant-specific quantity levy by the subscriber of the input materials required for production, as well as the quantities of the by-products and main products.

### mass-balanced product

This is a product for whose manufacture in the value chain waste-based raw materials were demonstrably used in the mass balance. The proportion of waste-based raw materials in the product does not necessarily have to be physically detectable.

## 3. Focus of certification

The main points in this part of the certification are

- the qualification of the persons responsible for the certification,
- the traceability of the material origin and the waste origin,
- the storage situation,
- the handling of possible subcontractors and
- the effects on the environment.

## 4. General aspects of inspection

This part of the requirements applies to all applying companies, regardless of the module according to which the products are to be certified.

### a. General aspects of inspection

Checking whether certificates exist according to other standards, e.g. ISO 14001, ISO 9001, ISO 18001, EMAS, TÜV SÜD CMS 71, EuCertPlast or others

### b. Management Team

Confirm the legal directors of requesting company. Check if an organigram is available and if the contact persons of the certification have the appropriate qualifications, declare the necessary information about the audited products.



### **c. Origin of the Incoming material**

The system checks whether the origin of the incoming material can be traced. The details of the deliveries, such as purchasing quality, supplier, haulier must also be documented. It must be ensured that the quantities can be documented by means of calibrated scales.

A process for monitoring the incoming materials relevant to this certification shall be documented. Monitoring shall be carried out for each delivery.

### **d. Stock Management**

The details of the warehouse situation are recorded. The system checks whether an appropriate storage system exists to ensure that the incoming quantities to be considered can be assigned to the vendor. It is also checked whether the stock is being checked as part of regular inventories.

### **e. Subcontracting**

If the applying company does not carry out all the process steps itself, it must be checked that the subcontractors used also comply with all the requirements of this certification. It must also be possible to identify which services were performed by the company itself and which were performed by subcontractors.

### **f. Environmental protection**

A visual inspection is carried out to determine whether the production process can cause exceptional environmental pollution and what existing environmental protection measures are in place.