

RecyClass

MODULE ALPHA

SORTING PROCESS
CERTIFICATION

RECYCLED PLASTICS

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1. INTRODUCTION

Module Alpha describes a set of additional requirements for the Certification of Sorting Processes that produce Plastic Waste intended to be used in Recycling Processes which may lead to the production of Recycled Plastics suitable for food contact applications¹. The requirements defined in Module Alpha were developed in line with Regulation (EU) No 2022/1616¹ and Regulation (EC) No 2023/2006 on good manufacturing practice².

Organisations applying for Certification of Sorting Processes must demonstrate conformity with the general audit scheme requirements extended by the criteria set out in this module.

Disclaimer

This *Certification* does not constitute proof of food contact approval or full compliance with Regulation (EU) No 2022/1616. It rather provides confidence that *Sorting Centres and Waste Traders* follows structured procedures and controls to conduct Pre-processing operations to produce a *Plastic Waste* output intended for a recycling process producing a recycled output suitable for contact with food.

2. TERMS AND DEFINITIONS

Defined terms are marked in italics and start with a capital letter. The definitions used in Module Alpha are consistent with those outlined in Article 2 of the Regulation. However, these definitions may differ from those used in the main Sorting Process Audit Schemes. Careful consideration of these differences is necessary to avoid confusion during the audit process described in the following sections.

In the Audit Scheme when the terminology “intended for recycling into food contact applications” it refers to Input Waste that meets all the following criteria:

- Originating from Municipal Waste
- Originating from Separate Collection
- Compliance with Reg(EC) No 10/2011

When one or more of the above criteria are not met the Input Waste is defined as “not intended for recycling into food contact applications”.

3. MODULE ALPHA CERTIFICATION DETAILS

This *Certification* follows the requirements described in Article 6 of Regulation (EU) No 2022/1616 relating to origin of the waste, separate collection, quality assurance and traceability of a *Sorting Process*. This Module is an extension of requirements of the Sorting Process Audit Scheme for all *Pre-processing* operations.

Certification of Sorting Processes and Waste Trader activities for *Plastic Waste* outputs destined for a recycling process producing a recycled output intended for food contact is the point of origin audit for the chain of custody of recycled plastics used in food contact applications.

If an *Organization* performs only the Secondary Sorting process, having received *Plastic Waste* that has already undergone First Sorting by another *Organization*, it must also be certified under this audit scheme.

¹ OJ L 243, 20.9.2022, p. 3–46 available at Regulation - 2022/1616 - EN - EUR-Lex (europa.eu)

² Consolidated TEXT: 32006R2023 — EN — 16.03.2025

Module Alpha can be issued for Organisations worldwide³. Requirements for Pre-processing operations of Plastic Waste can derogate from the requirements established in article 6 of Regulation (EU) No 2022/1616 for novel technologies. However, these are not considered in this Audit Scheme.

SECTION 1: ADMINISTRATION

1.1 ACCESS RESTRICTIONS

All areas of the *Sorting Centres* and *Waste Trader* are restricted to personnel only. There is a system in place to register and record visitors.

1.2 FIRE RISK MANAGEMENT

There is a fire protection plan in place to ensure that fire risk within the plant is minimised. There is a fire drill at least once per year.

1.3 STAFF QUALIFICATIONS & TRAINING

An appropriate number of floor supervisors and managers hold recognised qualifications related to quality management in production processes.

Staff supervising *Sorting Process* have been trained to understand and verify the quality of *Plastic Waste* to ensure that it meets output characterisation. This can include internal training programmes where suitably structured and documented.

SECTION 2: INPUT REQUIREMENTS

2.1 INPUT SPECIFICATIONS

Input waste from different countries may be mixed only if it originates from the EU27, the UK, Switzerland, Norway, Iceland, or Liechtenstein.

Origin of the waste must be from *post-consumer* municipal waste, food retail, another food business (if it was only intended to be used in contact with food) or a recycling scheme deeming it suitable for recycling, decontamination and use in food contact applications.

Additionally, in case of *Secondary Sorting Centres*, *Sorting Centres* must characterise *Plastic Waste* according to EN 15347:2007.

2.2 INPUT WASTE COMPLIANCE WITH REG. (EC) 10/2011

^{3 3} *The recycling of plastics into food contact applications in a Novel Technology process may derogate from the requirements established in article 6 of Regulation (EU) No 2022/1616. However, these are not considered in this Audit Scheme.*

Input Waste must originate only from materials and articles manufactured in accordance with Regulation (EU) N° 10/2011 or recycled plastic materials and articles manufactured in accordance with Regulation (EU) no 2022/1616.

There is evidence that the *Input Waste* originates from the EU 27, Iceland, Liechtenstein, Norway, Switzerland, and the United Kingdom. *Input Waste* generated within the aforementioned countries is deemed to meet this requirement.

Alternatively, when the *Input Waste* originates outside of those countries, Organisation must provide a report addressing all the criteria outlined in the Annex II below as evidence of equivalence of a national legislation with Regulation (EU) N° 10/2011. The report must be issued by a national competent authority of the waste's country of origin or a third-party legal office. When the report is issued by a third-party legal office, the report must be endorsed by a national competent authority. The report must confirm that the legislation from the waste's country of origin is equivalent to, or imposes stricter requirements than, Regulation (EU) N° 10/2011.

2.3 INPUT WASTE COLLECTION SYSTEM

Input Waste is properly identified and supported by relevant documentation that specifies the type of collection system used, which must adhere to the requirements of *Separate Collection*.

Separate Collection is defined as a collection scheme where *Plastic Waste* is collected separately from the mixed residual waste. Separate plastic waste collection can be done together with other plastic, metal, paper or glass packaging. *Separate collection* systems must be designed to exclude hazardous waste such as pesticides, solvents, paint, etc., that depict the CLP Pictograms of Serious health hazard and Acute toxicity (e.g. pesticides, solvents, paints, etc.). *Separate collection* systems must be designed to minimise contamination of collected *Plastic Waste* from any *Input Waste* not meeting the requirements of 3.2 and 3.3.

Table 1 indicates what collection systems can be considered separately collected according to article 6.1 of Regulation (EU) N° 2022/1616. This matrix shall be used for the identification of compatible collection schemes.

Table 1 - Collection Schemes

Collection Scheme	Compliant	Non-compliant
Door-to-door, drop off collection of separately collected plastic packaging with or without metal, and/or paper, and/or glass, and/or carton package and / or other types of non-packaging materials (e.g. newspapers).	X	
Manual Sorting after <i>Separate Collection</i>	X	
Mixed collection (non-separately collected waste)		X
Plastic Waste sorted from non-separately collected residual waste.		X
Hand picking after non separate collection. (examples are handpicking from the landfill or the curb side)		X
Ocean plastic.		X

SECTION 3: STOCK MANAGEMENT

3.1 INPUT STOCK SEGREGATION

If Input Waste and/or Plastic Waste received by the *Sorting Centre* or *Waste Trader* is not compliant with Regulation (EU) 10/2011, it must be stored in clearly designated areas and strictly segregated at all times from material that is compliant with Regulation (EU) 10/2011. If the *Sorting Centre* or *Waste Trader* receives *Input Waste* and/or *Plastic Waste* from *non-separate collection systems*, then the *Sorting Centres* must have allocated storage areas for it, and it must be segregated at all times from the *Input Waste* and *Plastic Waste* from *separate collection* systems.

If the *Sorting Centre* receives both municipal waste (or waste from food retail or other food businesses) and non-municipal waste, these streams shall also be stored separately in clearly designated storage areas and kept physically segregated at all times. The *Sorting Centre* and *Waste Trader* must have in place appropriate procedures to guarantee the segregation of the incoming stock.

3.2 OUTPUT STOCK SEGREGATION

The *Sorting Centre* and *Waste Trader* must have in place appropriate procedures to guarantee that the batches of *Plastic Waste* originating from *Separate Collection* are segregated from the batches of *Plastic Waste* not originating from *separate collection*.

The *Sorting Centre* and *Waste Trader* must have in place appropriate procedures to guarantee that the batches of *Plastic Waste* compliant with Regulation (EU) 10/2011 are segregated from the batches of *Plastic Waste* not compliant with Regulation (EU) 10/2011.

The *Sorting Centre* and *Waste Trader* must have in place appropriate procedures to guarantee that the batches of *Plastic Waste* originating from *municipal waste* (or waste from food retail or other food businesses) are segregated from the batches of *Plastic Waste* not originating from *municipal waste*.

The *Sorting Centre* and *Waste Trader* must have in place appropriate procedures to guarantee the segregation of the output stock.

SECTION 4: QUALITY ASSURANCE

4.1 QUALITY ASSURANCE OF INPUT WASTE

Sorting Centres and *Waste Traders* have a documented procedure in place to verify that the *Input Waste* meets the required specifications. This verification must be based on an assessment of the indicative composition of the waste, conducted through sampling methods such as manual picking or random bale checks. The procedure must ensure that *Input Waste* aligns with the expected material composition and quality standards.

4.2 PREVENTING INCIDENTAL CONTAMINATION

There are internal procedures established within the daily operation of the *Sorting Centres* and *Waste Traders* to prevent incidental contamination of material.

If the same sorting line is used to process both *Input Waste* intended for recycling into food contact applications and not, the line must be emptied before introducing batches intended for recycling into food contact applications to ensure the integrity of the material.

The procedure shall be documented.

4.3 PLASTIC WASTE CHARACTERISATION

Plastic Waste is supplied against a waste specification which includes the following information:

1. **Post-consumer PET Plastic Waste to be mechanically recycled:** *must be accompanied by information specifying the percentage of materials and articles that were previously in contact with non-food materials or substances. This information shall be provided in accordance with a stipulated commercial agreement between the Sorting Centre and the Recycler, which defines which party is responsible for supplying it.*
2. **Plastic Waste originating from a product loops which are in a closed and controlled chain:** *shall consist of chemically uncontaminated plastic materials and articles made from a single polymer or compatible polymers, used or intended for use under the same conditions, and exclusively sourced from systems that exclude collection from consumers.*

4.4 SYSTEM FOR NON COMPLIANCE

Comprehensive and well-documented quality assurance systems and procedures are in place to monitor and address any deviation from established protocols and standards pertaining to the receipt, inspection, and processing of *Input Waste*, as well as the subsequent sorted output of *Plastic Waste*.

SECTION 5: QUALITY CONTROL

5.1 QUALITY CONTROL SYSTEM

Sorting Centres have a documented procedure describing the quality control of critical parameters implemented at *Site*. The procedure defines and document all the operations within their process and list all quality controls done at each step, and determines the frequency and size of sampling. All deviations are documented and justified.

5.2 QUALITY CONTROL SYSTEM REVIEW

The quality control system must have a documented review process aimed at monitoring the achievement of good manufacturing practices in the operations. This shall include a mechanism to address any failures and take corrective actions.

An established review process for internal procedures that can be implemented as needed, for example if the organization's established Output Specifications are not consistently met or maintained over time. This review process must involve key stakeholders and subject matter experts to identify root causes, develop corrective actions, and implement continuous improvement measures to ensure ongoing adherence to the specified performance standards.

4. ANNEX I: DEFINITIONS

Organization

[ISO 22095:2020, 3.4.1]

Entity or group of people and facilities with an arrangement of responsibilities, authorities and relationships and identifiable objectives.

Certification

[ISO17000:2005, 5.5, adapted]

Third-party attestation related to this Audit Scheme.

Separate Collection

[Regulation (EU) No 2022/1616, article 6, 2]

The Input Waste shall be considered as collected separately when one of the following conditions is fulfilled:

- (a) it consists only of plastic materials and articles meeting the requirements of paragraph 1, points (a) and (b), and which have been collected separately for recycling from any other waste;
- (b) it is collected together with other packaging waste fractions of municipal waste or with other non-packaging plastic, metal, paper or glass fractions of municipal waste collected separately from residual waste for recycling, and the following requirements are met:
 - (i) the collection system collects only non-hazardous waste;
 - (ii) the collection of waste and the subsequent sorting are designed and carried out to minimise contamination of collected plastic waste from any plastic waste not meeting the requirements of paragraph 1, points (a) and (b), or other waste;

Municipal Waste

[Directive 2008/98/EC]

Municipal Waste means:

- (a) mixed waste and separately collected waste from households, including paper and cardboard, glass, metals, plastics, bio-waste, wood, textiles, packaging, waste electrical and electronic equipment, waste batteries and accumulators, and bulky waste, including mattresses and furniture;
- (b) mixed waste and separately collected waste from other sources, where such waste is similar in nature and composition to waste from households;

Municipal waste does not include waste from production, agriculture, forestry, fishing, septic tanks and sewage network and treatment, including sewage sludge, end-of-life vehicles or construction and demolition waste.

Sorting Process

It can include both First Sorting and Secondary Sorting, or only Secondary Sorting Centres in case in which the Input Waste is already Plastic Waste because the country(s) of origin have a collection system designed to collect Plastic Waste separately from other materials. The output of the sorting is the *Plastic Waste*.

First Sorting

First Sorting is the initial stage of waste processing where the incoming *Input Waste* is processed into distinct categories. The outputs are *Plastic Waste* and *Other Waste*. The aim of First Sorting is to streamline the waste into streams for further processing, ensuring that recyclable materials are efficiently directed to appropriate handling pathways.

Secondary Sorting

Secondary Sorting occurs after the *First Sorting* stage. This process involves a more detailed sorting of the *Plastic Waste*, further refining its sorting. The aim of Secondary Sorting is to further separate the Plastic Waste by sorting with

reference to polymer type, format or colour and ensuring that the plastic waste is adequately prepared for *Final Pre-Processing* and subsequent recycling stages.

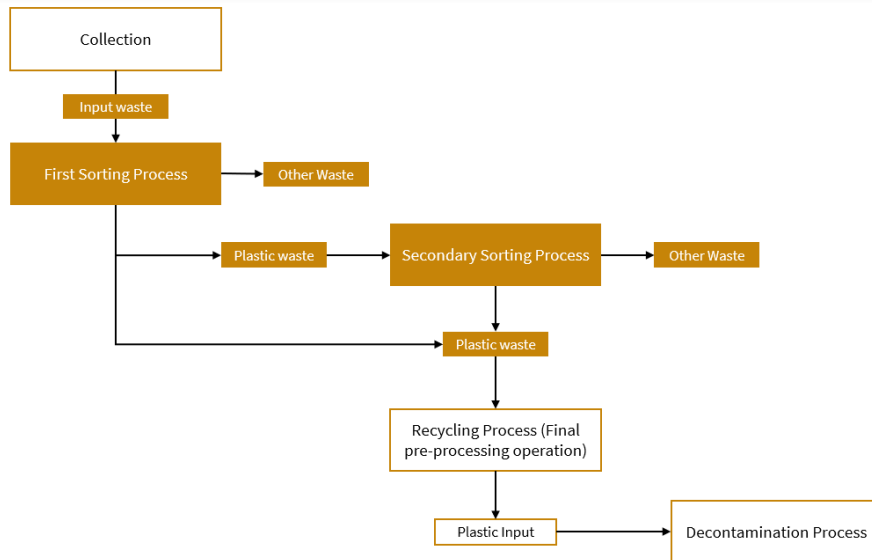


Figure 1 - Definitions from regulation (EU) No 2022/1616

Sorting Centres

The actors performing the *First* and / or *Secondary Sorting*.

Pre-Processing

[Reg 1616/2022]

It means all waste management operations carried out to sort, shred, wash, mix or otherwise treat plastic waste in order to make it suitable for the decontamination process.

Final Pre-Processing

The facility that carries out the final sorting and / or treatment of the plastic prior to the decontamination process. The output of the final pre-processing operation is the Plastic Input.

Traceability

[ISO 22095:2020, 3.6.1]

Ability to trace the history, application, location or source(s) of a material or product throughout the supply chain.

Storage Bay

A defined storage area where a known number of *Batches* of *Incoming Plastic Waste* can be kept separate and isolated from other *Batches* of *Incoming Waste Plastic* and contamination.

Batch

[Regulation (EU) No 2022/1616]

Quantity of material of the same quality, and produced using uniform production parameters at a certain manufacturing stage, stored and contained to exclude mixing with other materials, or contamination, and designated as such by a single production number.

Other Waste

Other Waste refers to all materials sorted during the *Sorting Process* that do not fall under the category of *Plastic Waste*. This includes, but is not limited to, metals, glass and paper.

Plastic waste

It is the input to a *Final Pre-Processing* operation or a *Secondary Sorting Centre*.

Input Waste

It is the input of the *First Sorting Process*.

Post-consumer

[EN 14021:2016, 7.8.1.1]

Descriptive term covering material, generated by the end users of products, that has fulfilled its intended purpose or can no longer be used (including material returned within the distribution chain. For specific materials such as PVC, sector definitions apply. Note 1: The term “post-use” is sometimes used synonymously.

Pre-consumer

[EN 14021:2016, 7.8.1.1]

Descriptive term covering material diverted from the waste stream during a manufacturing process. Note 1: This term excludes re-utilized material, such as rework, regrind or scrap that has been generated in a given process and is capable of being reclaimed within that same process. Note 2: The term “post-industrial material” is sometimes used synonymously.

5. ANNEX II: EVIDENCE REPORT CHECKLIST – REQUIREMENT 2.2

The below checklist provides information on how to demonstrate compliance with requirement 2.2 on Input Waste Compliance with Regulation (EU) N° 10/2011, receiving waste from outside EU 27 Member States, Iceland, Liechtenstein, Norway, Switzerland, and the United Kingdom. The report must justify the equivalence and provide a comparison between Regulation (EU) N° 10/2011 and the equivalent national regulation. A list of authorised substances must be included detailing SMLs and restrictions and limitations for their use.

Requirement	Evidence of equivalence	Check
1.0 Substances		
1.1 List of authorised substances	<ul style="list-style-type: none"> List of authorised substances equal or stricter than Regulation (EU) N° 10/2011. 	<p>Is there a list of authorized substances approved for use in the manufacture of food contact plastics equal to Annex 1 of Regulation (EU) N° 10/2011?</p> <p>There is a confirmation that no other substances than the ones included in this list can be used for the manufacture of plastics in contact with food.</p>
2.0 Testing Protocols		
2.1. Migration Testing Protocols	<ul style="list-style-type: none"> Protocol for migration tests equal or stricter than the method specified in Annex V of Regulation (EU) N° 10/2011. 	<p>Are the conditions described for testing migration levels to ensure compliance with the described specific migration limits (SMLs) and overall migration limits (OMLs) equal or stricter than the method specified in Annex V of Regulation (EU) N° 10/2011?</p> <p>Are the migration tests done in line with standard EN 1186?</p>
2.2 Expression of migration test results	<ul style="list-style-type: none"> SML values expression equal or stricter than Regulation (EU) N° 10/2011. 	<p>Are the specific migration values expressed in mg/Kg applying the real surface to volume ratio in actual or foreseen use in compliance with Article 17 of Regulation (EU) N° 10/2011?</p>
3.0 Material Specifications		
3.1. Compliance of Input Materials: Specific migration limits	<ul style="list-style-type: none"> Presence of SMLs per substance equal or stricter than Regulation (EU) N° 10/2011. 	<p>Does the list of substances include individual SMLs to control the amount of the substance that can migrate from the plastic into food?</p> <p>Are the SMLs equal or lower than the ones included in Annex 1 for each specific substance?</p> <p>Do the specific migration values expressed fulfil requirements equal or stricter than the requirements included in article 17 of Regulation (EU) N° 10/2011?</p>
3.2. Compliance of Input Materials: Overall migration limits	<ul style="list-style-type: none"> Requirements on OMLs equal or stricter than Regulation (EU) N° 10/2011. 	<p>Is there an OML for the total amount of any substance that can migrate from the plastic into food equal or lower than 10 ml of total constituents released per dm² of food contact surface as specified in article 12 of Regulation (EU) N° 10/2011?</p> <p>In case of plastic material and articles intended to be brought into contact with food intended for infants and young children, is there an OML for the total amount of any substance that can migrate from the plastic into food equal or lower than 60 ml of total constituents released per kg of food contact simulant as specified in article 12 of Regulation (EU) N° 10/2011?</p>

3.3 Compliance of Input Materials: Restrictions and Limitations	<ul style="list-style-type: none"> List of authorised substances includes restrictions and limitations equal or stricter than the ones included in Regulation (EU) N° 10/2011. 	Does the national legislation include specific restrictions and limitations per substance listed equal or stricter than the ones included in Annex 1, Table 1(10) of Regulation (EU) N° 10/2011?
5.0 Placing on the market		
5.1 Declaration of compliance	<ul style="list-style-type: none"> Requirement for manufacturers to provide a declaration of compliance equal or stricter than the requirements included in Regulation (EU) N° 10/2011 	<p>Are the manufacturers of plastics for food contact applications required to provide a Declaration of Compliance prepared in accordance with requirements equal or higher than the requirements included in article 15, article 16 and annex IV of Regulation (EU) N° 10/2011?</p> <p>Does the declaration of compliance include the identity of the manufacturer or importer, the intended use of the plastic materials and articles and the conditions and results of testing, calculations, including modelling, other analysis, and evidence and reasoning on the safety of the product placed on the market?</p>
5.2 Product Labelling Requirements	<ul style="list-style-type: none"> Requirements for labelling equal or stricter than the ones specified in Regulation (EU) N° 10/2011 	Do plastic products intended to come into contact with food have labelling requirements specifying the intended use, any limitations or prohibitions and are printed in the official language of the market where the product is sold as specified in Article 4 of Regulation (EC) N° 1935/2004?
6.0 Plastics production		
6.1 Good manufacturing practice (GMP)	<ul style="list-style-type: none"> Requirements on good manufacturing practices equivalent to Regulation (EU) N° 2023/2006. 	Does the national legislation establish GMPs to ensure consistent quality and safety of plastics equivalent to Regulation (EU) N° 2023/2006?
6.2 Traceability	<ul style="list-style-type: none"> Traceability requirements equal or stricter than Regulation (EC) N° 1935/2004. 	Does the national legislation establish traceability requirements equal or stricter to those included in Article 17 of Regulation (EC) N° 1935/2004?
7.0 Recycled content		
7.1 Recycling national regulations on food contact	<ul style="list-style-type: none"> National food recycling regulations equal or stricter than Regulation (EU) N° 1616/2022. 	Does the country in which the material is collected allow recycled plastics in food contact application? If yes, evidence that the national food recycling regulations are in line Regulation (EU) N° 1616/2022.

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