RecyClass

AUDIT SCHEME

RECYCLING PROCESS CERTIFICATION

RECYCLED PLASTICS

VERSION 1.1

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RecyClass

CONTENT

RecyClass

1. FOCUS OF CERTIFICATION

The aim of this *Certification* is to recognise plastic *Recycling Process/es* for pre-consumer and post-consumer waste operating at a *Site* according to the requirements set forth in the Recycling Process Conformity Assessment Scheme.

Certification against this Audit Scheme allows *Recyclers* to demonstrate their contribution to the waste management of plastics and transparently communicate the origin of the waste. The certification of the *Recycling Process* is the point of origin audit for the chain of custody of recycled plastics. Certified *Organisations* provide trust to all plastics value chain actors for a continuous increase of the use of recycled plastics.

The Audit Scheme requirements are aligned with those of EN 15343:2007 and ISO 22095:2020.

2. SCOPE OF CERTIFICATION

Certification focuses on the verification of the origin of waste, the traceability throughout Recycling Process and the calculation of recycled content in the output. The Audit Scheme covers the requirements to be met by *Organisations* concerning traceability according to EN 15343:2007, quality management systems and environmental and administrative operating performance for the recycling of waste, as well as chain of custody.

Chain of custody defines requirements to ensure the origin of the waste, traceability and percentage of recycled plastics in the output. The Audit Scheme operates according to controlled blending chain of custody model as described in ISO 22095:2020 which allow the transfer of information from one actor of the value chain to another under the *Certification.*

Additionally, the Audit Scheme can be complemented with add-on Modules depending on the Recycling Process. Available Modules are listed in Annex II.

The use of the Certification mark is limited to those *Recyclers* who obtained a certificate via third-party Certification Body based on this Audit Scheme.

3. TERMS AND DEFINITIONS

Defined terms are marked in *italics* and start with a capital letter. Terms and definitions relating to this document can be found in Annex 1.

4. NORMATIVE REFERENCES

EN 15342 Plastics—Recycled Plastics—Characterization of polystyrene (PS) recyclates

EN 15343 Plastics—Recycled Plastics—Recycling traceability and assessment of conformity

EN 15344 Plastics—Recycled Plastics—Characterisation of Polyethylene (PE) recyclates

EN 15345 Plastics—Recycled Plastics—Characterisation of Polypropylene (PP) recyclates

EN 15346 Plastics—Recycled plastics—Characterisation of poly(vinyl chloride) (PVC) recyclates

EN 15347 Plastics—Recycled Plastics—Characterisation of waste plastics

EN 15348 Plastics—Recycled Plastics—Characterization of poly(ethylene terephthalate) (PET) recyclates

EN 17615 Plastics – Environmental Aspects - Vocabulary

ISO 14021 Environmental labels and declarations - self-declared environmental claims (Type II environmental labelling)

ISO 22095 – Chain of Custody – Terminology and definitions

5. TYPES OF CERTIFICATION

5.1 INITIAL CERTIFICATION

Initial Certification should take place for a *Recycling Process/es* within one *Site* which can present production records from the previous 12 months of operation. The certificate is valid for 1 year.

5.2 MONITORING CERTIFICATION

Monitoring Certification should take place for a *Recycling Process/es* within one *Site* or several sites renewing their Certification. Production records must be available from the previous 12 months of operation. The certificate is valid for 1 year.

5.3 PROVISIONAL CERTIFICATION

Provisional Certification should take place for a *Recycling Process/es* within one *Site* or several sites which have been in operation for less than 12 months or there are less than 12 months of production records. A minimum of 3 months of data are required to issue a *Provisional Certification*. If a license application is unsuccessful the auditor must be informed. The certificate is valid for 1 year.

5.4 MULTISITE CERTIFICATION

Multisite Certification should take place for a *Recycling Process/es* within two or more separate *Sites* under the same ownership. *Recycler* must designate one location as main address for administrative purposes of *Certification*. All locations must be visited during the on-site audit and listed in the Audit Report and Summary Sheet. The certificate is valid for 1 year.

6. ELIGIBILITY FOR CERTIFICATION

Certification may only be granted to *Recyclers* with plastics *Recycling Processes* in place capable of recycling pre-consumer and/or post-consumer plastic waste into new plastics products.

Recyclers must have a *Recycling Process/es* in place in possession of a waste management permit, a permit derogation according to Article 20 of the Waste Framework Directive, or an operating license or environmental license with specific provisions on treatment of waste. In case of Module A Food Contact, section A2, *Organisations* may only operate a *Decontamination Process* and are exempt of having a waste permit in place.

7. OBJECT OF CONFORMITY

Certification enables *Recyclers* with plastic *Recycling Process/es* to demonstrate compliance with *Certification* under the RecyClass Recycling Process Audit Scheme in line with requirements of EN 15343:2007.

The conformity assessment focuses on the required procedures to ensure traceability of plastic waste within a Recycling Process and provides a declaration of the percentage of recycled content (pre-consumer and post-consumer) in Recycled Outputs.

8. OPERATING PERFORMANCE REQUIREMENTS

The audit criteria are standardised in two categories which define two levels where *Recycler* can achieve *Certification*.

Category Type	Meaning
1	**Requirement level 1.** Object of conformity must achieve the required standard for type 1 categories in order to achieve *Certification*.
2	**Requirement level 2.** Optional to include requirements level 2 as part of the object of conformity. Compliance with these requirements is not mandatory to obtain *Certification*.

9. TRACEABILITY

Traceability of recycled plastics is an essential part of the *Certification* and central focus of the audit evaluation. ISO 22095:2020 defines traceability as the ability to trace the history, application, or location of a product. Traceability allows the monitoring of the movement of a product and its components through specified stages of a process or operation.

Certification offers three different levels of traceability depending on the granularity of the traceability in the storage and *Recycling Process* as described in Figure 1.

Figure 1. Description of Traceability Levels

Audit Requirements	Traceability Level 1	Traceability Level 2	Traceability Level 3
Control of Input Plastic Waste	Each *Batch* of *Input Plastic Waste* is individually identifiable in the storage area.	*Input Plastic Waste* is stored by *Recycler* in two or more *Storage Bays.* *Batches* of *Input Plastic Waste* which make up the contents of a *Storage Bay* are known and fully documented. Each individual *Batch* of *Incoming Waste Plastic* may not be separately identifiable within a *Storage Bay.*	*Input Plastic Waste* is stored by *Recycler* in one or more *Storage Bays.* Each individual *Batch* of *Incoming Waste Plastic* may not be separately identifiable within a *Storage Bay.*
Control of Recycling Process	*Recycling Process* is fed with individual *Batches* of *Input Plastic Waste* or mixtures of *Batches* of *Input Plastic Wastes* of known composition. Process variables are documents.	*Recycling Process* is fed with the contents of a *Storage Bay (*one *Storage Bay* at a time ensuring that it is completely emptied before introducing *Input Plastic Waste* into *Recycling Process* from a different *Storage Bay)*. This is documented.	*Recycling Process* is fed with *Input Plastic Waste* into *Recycling Process*. This is documented.
Recycled Output	*Recycled Outputs* *Recycled Outputs* are prepared in *Batches* and details of the date and time of production recorded.	*Recycled Outputs* can be traced to *Input Plastic Waste* from a specific *Storage Bay* and therefore to known *Batches* of *Input Plastic Waste*. *Recycled Outputs* are prepared in *Batches* and details of the date and time of production recorded.	*Recycled Outputs* can be traced and documented on a monthly average to *Input Plastic Waste* – groups of suppliers. *Recycled Outputs* are prepared in *Batches* and details of the date and time of production recorded. In case of mix pre-consumer and post-consumer the split must be documented. If this is not the case, all material will be considered pre-consumer waste under a controlled blending model.

10. CALCULATION OF RECYCLED CONTENT

The calculation of recycled content supports the transparent communication of recycled plastics along the value chain. *Certification* includes a calculation of recycled content per *Recycled Output*. This information may be communicated to customers part of the chain of custody of the material.

The share of recycled plastics is determined following the assessment and documentation review during the audit. The calculation for pre-consumer and post-consumer recycled content share of a *Recycled Output* will be calculated considering added substances according to the formula below in line with EN 15343:2007:

$$x = \frac{A}{P} \times 100$$

X is the Recycled Content, expressed as a percentage;
A is the mass of *Recycled Content*;
P is the total mass of *Recycled Output*.

In the formula, X represents the share of pre-consumer or post-consumer material which should be reported separately.

Any other ingredients in *Recycled Output* such as polymers (virgin plastics, modifiers, masterbatch, carrier resins, compatibilizers, etc.) and non-polymeric additives (antioxidants, fillers, etc.) count towards the denominator.

Certification will include information about the overall recycled content present across all *Recycled Outputs* and in some cases, a calculation of recycled content per *Recycled Output* as described below:

- ***Recycling Process* recycled content:** An average calculation of recycled content for *Recycling Process* is reported in the Summary Sheet and Audit Report. This is an average for all *Recycled Outputs.* This value cannot be used as a claim of recycled content in final products.
- **Recycled content per *Recycled Output***: A calculation of recycled content per *Recycled Output* is done stating the share of pre-consumer and post-consumer. This information is reported in the Certificate and Audit Report. This requirement is not mandatory for Traceability level 3.

The calculation of the recycled content per *Recycled Output* is requested to verify the origin of the waste in subsequent certifications of uptake of recycled plastics such as Blue Angel label or RecyClass.

11. CHAIN OF CUSTODY MODELS

Certification may be obtained applying two chain of custody models: i) segregation; ii) controlled blending. *Recyclers* may apply for *Certification* based on either of these two scopes.

In a segregation model, certified recycled plastics are kept always separate from other materials within *Site.* In this model, it is allowed to have recycled plastics from different sources mixed, given that these have the same characteristics. *Recycler* must ensure that recycled plastics are stored separate from other materials in the storage area and clearly identified. Physical separation of recycled plastics from other materials must also be ensured during

Recycling Process. Recyclers with a segregation model do not mix recycled plastics with any other materials during *Recycling Process,* including virgin plastics, additives, etc.

In a controlled blending model, recycled plastic is mixed with other materials or substances (e.g. virgin plastics, masterbatch, additives, fillers, etc.) in a known proportion of recycled plastics in the final output over a specified timeframe. In this model, the calculation of recycled content in *Recycled Output* is calculated as minimum percentage of recycled plastics. The calculation of recycled content allows claims determining a specific percentage that can be found in the product.

An organisation active in a controlled blending chain of custody model, must have a procedure in place to control the traceability of recycled plastics per Recycled Output within a specified share of recycled plastics. Recycler must ensure that the ratio between inputs and outputs is always known for a determined volume throughout the *Recycling Process*. Therefore, the percentage of recycled plastics present in the *Recycled Output* is known within the evaluated timeframe allowing claims determining a specific percentage of recycled plastics that can be found in the product.

12. NON-CONFORMITIES

Non-conformities are issued when there is a failure to comply with an Audit Scheme requirement. There is a significant doubt that an effective process control is in place or recycled content traceability for products cannot be established.

For all non-conformities identified, corrective actions must be presented to CBs to continue the audit procedure. CBs must evaluate the submitted corrective actions and decide if these were closed to continue with the audit procedure and issue a certificate.

The audit procedure can be resumed on-site or where possible via documentation exchange or other means such as video connection. If corrective actions are not closed satisfactorily, the CBs may conclude the audit procedure.

Non-conformities must not be mistaken for observations which must be noted down as comments in the Audit Report.

13. CORE REQUIREMENTS CERTIFICATION DETAILS

SECTION 1: ADMINISTRATION

1.1 BUSINESS AND OPERATING LICENSES

Recycler has the following valid documents in place for Recycling Process/es at a Site:

i) Company registration document; and
ii) Waste management permit; or
iii) Permit derogation according to Article 20 of the Waste Framework Directive; or
iv) Operating license or environmental license with specific provisions on treatment of waste; and

v) Any operating licenses required for the country where Recycler is located.

Assessment level Category 1

1.2 ENVIRONMENTAL LICENSES AND PERMITS

Recycler has any environmental licenses required for the *Recycling Process* in the country of operation. These are valid. Licenses may include:

i) Solid waste generation and / or disposal;
ii) Wastewater treatment and/or disposal; and
iii) Emissions to the air.

Assessment level Category 1

1.3 WASTE TRANSPORT LICENSES

If *Recycler* uses their own vehicles to transport waste materials, these have the licenses required to do so in any countries where they operate said vehicles.

Assessment level Category 1

1.4 LICENSE AND PERMIT CONDITIONS – WASTE PLASTICS PROCESSED

For the storage of *Input Plastic Waste* and other waste plastics, *Recycler* does not exceed the restrictions set out in their operating license for the processed throughput (if relevant according to the license). This computation must consider the total waste plastics processed over the last 12 months. A lag of maximum two months prior to the on-site audit can be considered for the calculation.

Assessment level Category 1

1.5 LICENSE AND PERMIT CONDITIONS – STORAGE

Recycler does not exceed the restrictions set out in its operating license regarding the amount of Input Plastic Waste stored in *Site*. The average of the stock level at the time of the audit, one month prior to the audit, and two months prior to the audit must be used to make this computation.

Assessment level Category 1

1.6 ISO 14001

There is an ISO 14001 or equivalent certificate issued by a Certification Body accredited by an accreditation body signatory of EA or ILAC.

Assessment level Category 2

1.7 QUALITY MANAGEMENT SYSTEM

Recycler has a quality management system in place. If available, *Recycler* can demonstrate compliance with a valid certificate for ISO 9001or EMAS issued by a Certification Body accredited by an accreditation body signatory of EA or ILAC.

Assessment level Category 2

1.8 INSURANCE (1)

Recycler has valid, i.e. in date, insurance in place for:

i) Public liability

Assessment level Category 1

1.9 INSURANCE (2)

Recycler has valid, i.e. in date, insurance in place for:

i) Buildings, equipment, and stock
ii) Employers' liability

Assessment level Category 2

1.10 REGISTER OF COMPLAINTS

Recycler has a register of complaints in place. There is a procedure that guarantees that any complaints received related to the effective implementation of this *Certification* are considered for improvement.

Assessment level Category 2

SECTION 2: MANAGEMENT TEAM

2.1 COMPANY DIRECTORS

Top management of *Recycler* is identified for *Site*.

Assessment level Category 1

2.2 STAFF STRUCTURE AND RESPONSIBILITIES

Recycler has available, at least:

i) An organogram showing the reporting structure for staff;

ii) Titles and job descriptions for key staff (supervisor level and above).

Assessment level Category 1

2.3 STAFF QUALIFICATIONS (TECHNICAL)

Floor supervisors and managers hold recognised technical qualifications related to the *Recycling Process*. Examples of relevant qualifications would include those related to:

i) The management of production processes (general);

ii) The management of waste facilities;

iii) Polymer science & plastics processing.

Assessment level Category 2

2.4 STAFF TRAINING (TECHNICAL)

There is documented evidence that staff operating equipment have been suitably trained in its operation. This can include internal training programmes where suitably structured and documented.

Assessment level Category 2

2.5 STAFF QUALIFICATIONS (QUALITY MANAGEMENT)

Floor supervisors and managers hold recognised qualifications related to quality management in production processes.

Assessment level Category 2

2.6 STAFF TRAINING (QUALITY MANAGEMENT)

Staff supervising *Recycling Process* have been trained to understand and verify *Recycled Output* quality. This can include internal training programmes where suitably structured and documented.

Assessment level Category 2

SECTION 3: INCOMING MATERIAL PROCEDURES AND CONTROLS

3.1 PURCHASE SPECIFICATIONS

Recycler purchases and books in *Batches* of *Input Plastic Waste* against a specification. Where *Recycler* uses their own grading system a clear specification should be available for each grade of *Input Plastic Waste* accepted including as a minimum the polymer, colour, type of material and level of out throws.

Assessment level Category 1

3.2 WASTE CATEGORY

All *Input Plastic Waste* can be identified by a waste category linked to a six-digit code as listed in the annex "List of waste referred to in Article 7 of Directive 2008/98/EC[1]".

The origin of waste (pre-consumer or post-consumer), source of waste (household, commercial, industrial, other) must be identifiable and documented for *Input Plastic Waste.* Additionally, optionally the sector of the waste (Packaging, B&C, WEEE, ELV, Agriculture) and the type of application of *Plastic Input Waste* (e.g., PET trays, bottles, windows, etc.) is also identifiable and documented. The sector must be reported if Annex for the Circular Plastics Alliance of this Audit Scheme is filled in. This information is detailed in the Audit Report.

Inspection of the *Input Plastic Waste* takes place during the on-site audit to ensure that these information matches the documentation. Categories of plastic waste include:

Origin of waste Pre-consumer Post-consumer	**Sector of the waste** Packaging Agriculture Building & Construction Automotive WEEE Other
Source of waste Household Commercial Industrial Other	**Type of waste** PET trays PET bottles Windows Fridges Etc.

Assessment level Category 1

3.3 WEIGHTS AND DATES OF DELIVERY RECORDED

All incoming *Batches* of *Input Plastic Waste* are weighed on a weighbridge (public or at *Recycler*) and a minimum of the net weight of *Input Plastic Waste* and date of delivery are recorded. Weighbridge tickets should be printed and not manually adjusted, either on the computer prior to printing or by hand.

Assessment level Category 1

[1] *OJ L 226, 6.9.2000, p. 3*

3.4 SUPPLIER DETAILS RECORDED

Each *Batch* of *Input Plastic Waste* delivered can be linked to a supplier. Details of the suppliers are kept on file showing as a minimum the company name and address.

Assessment level Category 1

3.5 *HAULIER* DETAILS RECORDED

Each *Batch* of *Input Plastic Waste* delivered can be linked to a haulier. Details of the haulier are kept on file showing, as a minimum the company name and address.

Assessment level Category 2

3.6 WEIGHBRIDGE CALIBRATED

Where there is a weighbridge on site which is being used for the purchase of *Input Plastic Waste* or sale of *Recycled Output* then there is a valid certificate showing that it has been inspected and calibrated to a standard where it can be used for the sale or purchase of goods. The certificate should be issued by a suitably qualified and authorised company or organisation.

Assessment level Category 1

SECTION 4: STOCK MANAGEMENT

4.1 STOCKYARD DETAILS

Stockyard details shall be specified including at least:

i) Approximate size of covered storage area (m^2)

ii) Approximate size of uncovered storage area (m^2)

4.2 STORAGE CONDITIONS

Incoming (*Input Plastic Waste*) and outgoing (*Recycled Output*) stock are stored so that their quality does not deteriorate. Material should be stored on impermeable surfaces such as asphalt or concrete or on pallets (or similar) where the surface is untreated or permeable (e.g. loose aggregate).

Assessment level Category 1

4.3 INCOMING STOCK IDENTIFIABLE BY SUPPLIER

All incoming *Input Plastic Waste* is stored such that the supplier of each *Batch* can be identified. *Recycler* might do this, for example, by the tagging of bales or having allocated storage areas for suppliers.

Exemption for bulky waste according to Level 3 traceability must be defined.

Assessment level Category 1

4.4 STOCK MANAGEMENT SYSTEM

There is a system in place that records all movements of materials into and out of stock and the tonnage of stock present on site at any time. This information is available for both incoming (*Input Plastic Waste*) and outgoing (*Recycled Output*) stock.

Assessment level Category 1

4.5 STOCK CHECKS

Recycler organises a physical inspection of stock on a regular basis to verify that the level of stock shown in the stock management system is correct. These inspections should be documented.

The frequency of these inspections is subject to the system used by *Recycler*. *If* an electronic system is in place, physical inspections may vary from every month to once a year.

Assessment level Category 1

SECTION 5: RECYCLING PROCESS

5.1 RECYCLING STATISTICS

During the audit, Recycler must provide the following information calculated for the 12 months (3 months at least for Provisional Certification) prior to the audit.

5.1.1 *Site Capacity*

5.1.2 *Equipment Capacity*

5.1.3 Nominal Capacity

5.1.4 Incoming *Input Plastic Waste (pre-consumer and post-consumer)*

5.1.5 *Subcontracted Recycling*

5.1.6 Energy consumption in KWh per t of *Recycled Output* produced

Energy Consumption - Guidance table for auditors (these numbers are indicative)				
	LDPE	HDPE	PET	PVC
KWh/t	To be accessed	500-570	220-360	To be accessed

5.1.7 Fresh water consumption in litres per t of *Recycled Output* produced.

Fresh water Consumption - Guidance table for auditors (these numbers are indicative)				
	LDPE	HDPE	PET	PVC
m3/t	To be accessed	1.5-2.5	2-3	Not applicable

5.2 *INPUT VOLUME* RECONCILIATION

During the audit, a calculation of the volume reconciliation will take place to identify if there is *Input Plastic Waste* being delivered to *Site* which is unaccounted for. No significant excess of *Input Volume* over *Equipment Capacity* combined with *Subcontracted Recycling* should be identified.

$$\sum Equipment\ Capacity + \sum Subcontracted\ Recycling \geq \sum Input\ Volume$$

Where records show that *Input Plastic Waste* is being sold (traded) to other recyclers then this should be detailed in the Audit Report (including the tonnage of *Input Plastic Waste* sold to other recyclers / traders in the last 12 months – 3 months at least for provisional certification). The Audit Report should also show if any material is being toll recycled by non-certified recyclers.

Assessment level Category 1

5.3 PROCESS INPUTS AND OUTPUTS

Records are kept for materials that are placed into and produced by the *Recycling Process*. These include:

i) *Input Plastic Waste*
ii) *Recycled Outputs*
iii) Additives & master batches
iv) Solid wastes
v) By-Products

Assessment level Category 1

5.4 *RECYCLING PROCESS* VOLUME RECONCILIATION CALCULATION

The volume reconciliation calculation is an overview of all the material flows of *Recycling Process* for a period of 1 year (the period of evaluation) and 3 months at least for Provisional audits. This central part of the report should be reasonably accurate, and all discrepancies of the *Recycling Process* must be explained.

When a volume reconciliation is produced only using *Input Plastic Waste* and *Recycled Output*, a period of 3 months is granted to *Recycler* to alter their systems and add other categories to the calculation that might be missing.

If a *Recycler* has been producing *Recycled Output* for less than one year or records have been kept for less than one year, a *Provisional Certification* should be issued.

Assessment level Category 1

5.5 *BENEFICIAL OUTPUT & YIELD*

Recycler has documentation in place to allow the calculation of *Beneficial Output* and *Yield* which provide an indication of the amount of *Recycled Output* (by percent) that is produced from a given tonnage of *Input Plastic Waste*.

Assessment level Category 1

5.6 CALCULATION OF *RECYCLING RATE*

Recycler has a procedure in place to calculate the recycling rate as defined in the Implementation Act. The procedure considers the quality control of the input material from different qualities and suppliers. This procedure may be aligned with the *PRE Load Processing Rate Guidance*[2].

Assessment level Category 2

5.7 DOCUMENTED CONTROL OF *RECYCLING PROCESS*

Recycler keeps production records showing the times that the *Recycling Process* was operational on a given day and the volume of *Input Plastic Waste* used and *Recycling Output* produced. Records should be available for a minimum period of 12 months (i.e. during the evaluation period). Where this is not the case, a *Provisional Certificate* must be issued, with a minimum of 3 months data.

Assessment level Category 1

5.8 USE OF PRODUCTION STATISTICS

Recycler records information about the *Recycling Process,* which is used to generate reports, at least monthly, that can be used by the management team to optimise the performance of the *Recycling Process.* Reports show collated information over a period of time to show changes in, for example, production levels, downtime, *Beneficial Output*, *Yield,* contamination levels, etc.

Assessment level Category 1

5.9 TRACING *INPUT PLASTIC WASTE &* INPUT *BATCHES* TO SUPPLIERS

Batches of *Input Plastic Waste* into the *Recycling Process* can be traced back to individual or known groups of suppliers, which will be the case in Traceability Level 2 and 3.

Assessment level Category 1

5.10 TRACING *RECYCLED OUTPUT* TO SUPPLIERS

Recycled Output Lots can be traced back to input *Batches* and therefore suppliers.

Assessment level Category 1

5.11 *RECYCLING PROCESS* AS PER EN15343

Recycler operates in line with standard EN 15343, in particular with respect to the Methodology and Procedures outlined in Section 4; Quality Assurance described in Section 5; and Recycled Content in Section 6.

Assessment level Category 1

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[2] *PRE Load Processing Rate Guidance available upon request at* **info@plasticsrecyclers.eu**

5.12 RECYCLED CONTENT CALCULATION

The share of recycled content is reported in the Audit Report, Summary Sheet and certificate. Known recycled content must be calculated according to the following formula in line with Section 6 of EN 15343:2007:

$$Recycled\ content\ in\ Recycled\ Output\ (\%) = \frac{Mass\ of\ Recycled\ Plastic}{Total\ mass\ of\ Recycled\ Output}$$

Information gathered includes:

- **Known recycled content per *Recycling Process*:**

  Calculation of the share of pre-consumer and post-consumer known recycled content as an average for the 12 months under review. This information is reported on the Certificate and Audit Report. This share is an indication and cannot be used at product level claims to report recycled content claims in *Recycled Output*(s).

- **Known recycled content per *Recycled Output(s):***

  Calculation of the share of pre-consumer and post-consumer known recycled content per *Recycled Output(s).* The calculation reflects the origin of material (pre-consumer or post-consumer) and source of material (commercial, household, industrial). Type of waste (PET trays bottles or other) can also be documented when required by the applicant. Sector of the waste (Packaging, B&C, WEEE, ELV, Agriculture) is documented when Annex 2 is filled in. Calculation must reflect exact percentages (minimum percentage of recycled content) per Recycled Output that must be identified with a product name or code. In Traceability Level 3, this is not required.

Assessment level Category 1

SECTION 6: CONTROLS ON RECYCLED OUTPUTS

6.1 SALES RECORDS

Recycler maintains records of sales. These must include the following documentation: Costumer of *Recycled Output* - name and address; Weights of *Recycled Output* sold.

i) Type of *Recycled Output* sold - Technical Data Sheet

Assessment level Category 1

6.2 OUTPUT END-MARKETS

Recycler keeps records about the end markets of *Recycled Output* and *Pre-processed Waste Outputs*.

Assessment level Category 2

6.3 EVIDENCE OF SALES

There is evidence of sales of *Recycled Output*, specifying their weight and customer information. Other documentation showing the same information can be accepted if there is clear evidence of the supply of *Recycled Output*.

Assessment level Category 1

6.4 COMMUNICATION ABOUT CONFORMING PRODUCTS

In case of a monitoring audit, *Recycler* can provide verification that any marking, identification and marketing of conforming products are correctly monitored and documented.

Assessment level Category 1

6.5 EVIDENCE OF BY-PRODUCT TREATMENT OR USE

Any by-products produced by the *Recycling Process* have been sent to a suitably licensed site, *Broker* or *Dealer* for treatment or use should be available. Acceptable evidence would include:

i) invoices to or from a licensed site, *Broker* or *Dealer* showing the type and weight of the by-product received.
ii) delivery notes from a licensed site, *Broker* or *Dealer* showing the type and weight of the by-product received.
iii) A document signed by a licensed site, *Broker* or *Dealer* showing the type and weight of the by-products received

Assessment level Category 1

SECTION 7: ENVIRONMENTAL PROTECTION

7.1 DISPOSAL OF SOLID WASTES

Disposal of waste within the *Recycler's Site* follows the EU waste hierarchy (reuse, recycling, incineration, landfill. Waste undergoes safe disposal operations which meet the provisions of Article 13 of Directive 2008/98/EC[3].

Recycler sends to a suitably licensed disposal site, *Broker* or *Dealer* any solid wastes produced by the *Recycling Process*. Acceptable evidence would include:

i) Invoices from a licensed disposal site, *Broker* or *Dealer* showing the details and weight of the solid wastes received
ii) Delivery notes from a licensed disposal site, *Broker* or *Dealer* showing the details and weight of the solid wastes received

[3] OJ L 312 22.11.2008, p. 3 (Art 13) "Member States shall take the necessary measures to ensure that waste management is carried out without endangering human health, without harming the environment and, in particular: (a) without risk to water, air, soil, plants or animals; (b) without causing a nuisance through noise or odours; and (c) without adversely affecting the countryside or places of special interest."

iii) A document signed by a licensed disposal site, *Broker* or *Dealer* showing the details and weight of the solid wastes received

Assessment level Category 1

7.2 CONDITIONS OF DISPOSAL OF SOLID WASTES

Solid wastes are stored on paved floors equipped with rainwater collection systems in closed or fenced areas to avoid wind dispersion.

Solid wastes are stored and transported in a way that reduces space and volume of transportation.

Assessment level Category 1

7.3 LICENSED TREATMENT OF WASTEWATER (OFF SITE)

Section applicable when *Recycler* sends wastewater from *Recycling Process* off site for treatment. In any case, no direct disposal of water should be considered.

When the wastewater is being sent off site for treatment, *Recycler* must capture and store it in a way so as not to cause potential damage to the environment, for example through leakage. Wastewater must also be sent to a suitably licensed treatment site, *Broker* or *Dealer*.

Acceptable evidence would include:

i) invoices from a licensed treatment site, *Broker* or *Dealer* showing the details and volume of the wastewater received or;

ii) delivery notes from a licensed treatment site, *Broker* or *Dealer* showing the details and volume of the wastewater received or;

iii) A document signed by a licensed treatment site, *Broker* or *Dealer* showing the details and volume of the wastewater received.

See also Section 1 for permits for onsite water treatment.

Assessment level Category 1

7.4 CAPTURE AND TREATMENT OF RUNOFF

Recycler has a system in place in *Site* to capture, treat (where applicable) and divert rainwater runoff from the site (including the yard) into an appropriate drainage system.

The installed runoff collection system should be paved, and any storage of runoff waters should prevent leakages.

Assessment level Category 2

7.5 PELLET LOSS & MICROPLASTICS PROCEDURES (1)

Recycler has a procedure in place to prevent the leakage of *Input Plastic Waste* and *Recycled Output* into the environment within its premises and surroundings.

Appropriate training, guidelines and resources for the implementation and compliance of the procedure should be provided by the *Recycler*.

Assessment level Category 1

7.6 PELLET LOSS & MICROPLASTICS PROCEDURES (2)

Recycler's procedure concerning pellet loss & microplastics that identifies areas or processes where there is a high risk of pellet loss. Procedures should include:

i) Precautionary measures concerning deballing in the incoming material area;
ii) Precautionary measures concerning pellets/flakes production;
iii) Precautionary measures in the storage area; particularly the handling of big bags;
iv) Measures to recover waste, pellets or flakes which have been accidentally spilled;
v) Measures to regularly review and clean drainage systems and recycler surroundings.

Additionally, *Recycler* displays posters with information regarding how to maintain a clean environment. *Recycler* should offer ready-to-use equipment to handle any losses of waste or pellets/flakes. *Recycler* organises regular internal control to ensure the procedures are thoroughly applied.

Assessment level Category 2

7.7 NO CONTAMINATION OF LOCAL ENVIRONMENT

There is no activity on *Site* causing obvious contamination to the local environment.

A non-exhaustive list of such activities include:

i) The water treatment process being non-operational
ii) Direct discharge, without treatment, of wastewater from *Recycling Process*
iii) Uncontrolled and unregulated burning of solid wastes for disposal
iv) Waste stored in a way that would cause pollution of the local environment – waste loss

Assessment level Category 1

SECTION 8: SUBCONTRACTING

8.1 CONTROL OF SUBCONTRACTED RECYCLING

Input Plastic Waste sent for *Subcontracted Recycling* is recorded. Records show at least:

i) The date *Input Plastic Waste* was sent for *Subcontracted Recycling*;
ii) The company name and address of the party carrying out *Subcontracted Recycling;*
iii) The grade of *Input Plastic Waste* and tonnage sent for *Subcontracted Recycling*.

Assessment level Category 1

8.2 SUBCONTRACTOR'S CERTIFICATE

All *Subcontracted Recycling* is done by companies holding a Certification issued by RecyClass or a recognised equivalent certificate (e.g. EuCertPlast). Copies of the subcontractor's certificates should be viewed as evidence if available. Alternatively, a list of subcontractors is kept against the register.

Assessment level Category 1

8.3 SUPPLIERS INFORMED OF *SUBCONTRACTED RECYCLING*

Recycler records which *Batches* (or parts of *Batches*) of *Input Plastic Waste* supplied to *Subcontracted Recycling*. The supplier is informed in writing when this is occurring either on a case-by-case basis or for an agreed tonnage of *Input Plastic Waste* over a period of time. This applies to *Input Plastic Waste* sent to a specific contractor for *Subcontracted Recycling* and not to other waste or by-products sent to third parties.

Assessment level Category 2

8.4 CONTROL OF SUBCONTRACTED PROCESSING

Recycler records *Input Plastic Waste* sent for *Subcontracted Processing*. As a minimum, *Recycler* must record:

i) The date the *Input Plastic Waste* was sent for *Subcontracted Processing*
ii) The company name and address of the party carrying out the *Subcontracted Processing*
iii) The grade of *Input Plastic Waste* and tonnage sent for *Subcontracted Processing*

Assessment level Category 1

8.5 SUBCONTRACTOR'S WASTE TRANSPORT LICENSES

Details of third-party companies carrying out the collection or onwards supply of waste materials (including but not limited to *Input Plastic Waste*) are recorded. Information includes at least: i) organization name and legal address; ii) registration for waste transport under applicable national law.

Assessment level Category 2

SECTION 9: QUALITY MANAGEMENT

9.1 QUALITY ASSURANCE *INPUT PLASTIC WAS*TE

Recycler verifies the quality of *Input Plastic Waste*. The frequency of the sampling is justified via internal procedure.

Assessment level Category 2

9.2 *INPUT PLASTIC WASTE* CONTROLS AS PER EN15347 AND EN15343

Recycler receives supplier information regarding *Input Plastic Waste* as per EN15347, Table 1 (Required Characteristics of Plastic Wastes). Guidance for characterisation may be found on the PRE Bales Characterisation Guiding Requirements. Information on the 'batch size', 'colour', 'form of waste' and 'main polymer present' must be recorded

for each delivery. *Recyclers* should also be accepting *Input Plastic Waste* in line with Section 4.1 (Control of Input Materials) in EN15343.

Assessment level Category 1

9.3 *RECYCLING PROCESS QUALITY CONTROL*

Samples of *Batches* are taken during the *Recycling Process* for quality control. Frequency of the sampling is determined by internal procedures and records are kept.

Assessment level Category 1

9.4 *RECYCLED OUTPUT* QUALITY ASSURANCE

Recycler verifies the quality of *Recycled Output*. The frequency of the sampling is justified via internal procedure depending on the quality of *Input Plastic Waste* and *Recycling Process* parameters.

Assessment level Category 2

9.5 RECYCLED OUTPUT SPECIFICATION

The *Recycled Output* is supplied against a Technical Data Sheet that as a minimum refers to polymer, colour and the permitted level of contamination and/or follows "PRE Flakes and Pellets Characterisation Guidelines[4]".

The permitted range in the characteristics are shown in the Technical Data Sheet for product.

Assessment level Category 1

9.6 *RECYCLED OUTPUT* SPECIFICATION AS PER EN 1534X STANDARDS FOR CHARACTERISATION

Recycled Output is supplied against a Technical Data Sheet with characteristics in line with Table 1: Required Characteristics from the EN 1534X standard series:

- EN15342 for polystyrene recyclates
- EN15344 for polyethylene recyclates
- EN15345 for polypropylene recyclates
- EN15346 for poly(vinyl chloride) recyclates
- EN15348 for poly(ethylene terephalate) recyclates

Where no standard exists for *Recycled Output* polymer produced, the Technical Data Sheet must be in line with the broad principles of the EN Standards set out for other recyclates.

[4] *PRE Flakes and Pellets Characterisation Guidelines available at* ***Downloads | Plastics Recyclers Europe***

Any tests of these characteristics must be carried out using the guidance provided in the Standards; costumer's requests; or by industry standards. When deviation on the testing procedure described in the EN 1534X series exists, this must be justified.

Assessment level Category 1

9.7 OUT OF SPECIFICATION LOAD PROCEDURE

Recycler has an internal procedure in place to address deliveries of *Input Plastic Waste* which are not within the agreed specification. This must describe how the supplier is informed of the discrepancy (including timeframes) against the specification and what controls were done and recorded to support these claims.

Assessment level Category 2

9.8 REJECTED LOAD PROCEDURE

Recycler has an internal procedure in place to address deliveries of *Input Plastic Waste* which are rejected against the specification. This describes how the supplier is informed of the rejection (including timeframes) and what controls were done and recorded to support these claims. The internal procedure must include a quarantine period.

Assessment level Category 1

9.9 REACH

Recycler has procedures in place to ensure the compliance with the chemical product legislation (e.g. REACH SVHC, REACH restriction, POP Regulation (when applicable). In order to meet this requirement, *Recycler* has a procedure to monitor the presence of substances of concern in a broad sense such as PRE-1000[5]. Records of the data must be available. A procedure should be in place in case of non-conformities found in the *Recycled Output.*

It must be noted that a full assessment as to whether *Recycler* is compliant with REACH Regulation is out of the scope of this audit.

Assessment level Category 1

SECTION 10: ANNEXES TO THE AUDIT REPORT

10.1 CIRCULAR PLASTICS ALLIANCE: DATA GENERATOR TONNAGE VERIFICATION

Annex detailing the verified tonnages to be reported to a CPA compliant Data Collector to count towards the monitoring of recycling and uptake of recycled plastics in the EU.

The period of evaluation within a natural year must be specified for verification against the reported data in the Data Collector system.

[5] *Please get in touch with RecyClass at* ***info@recyclass.eu***

This Annex is not mandatory.

10.2 RECOVINYL: TONNAGE VERIFICATION

Annex dedicated to PVC recyclers which are part of Recovinyl. The annex includes data detailing the verified tonnages to be reported to RecoTrace™, data collection system of Recovinyl.

10.3 DETAILED VOLUME RECONCILIATION CALCULATION

The main report will contain a short description and overview of the volume reconciliation. The detailed information will be found in an Annex detailing the calculation. The Recycler can choose whether to disclose the annexes together with the Report to stakeholders or customers.

10.4 ADDITIONAL REQUIREMENTS FOR GERMAN WASTE

Recycler(s) receiving waste from Germany must fill in this Annex.

SECTION 11: OUTCOMES OF THE AUDIT

11.1 AUDIT REPORT

Certification Body must issue an Audit Report with the final statement of conformity and the details of the audit findings. The audit report is valid for 1 year and is identified with a unique certification code.

11.2 CERTIFICATE

Certification Body must issue a certificate reporting the final statement of conformity and the details of the audit findings. The certificate is also valid for 1 years and is identified with the same certification code than the audit report.

11.3 USE OF CERTIFICATION MARK

The use of the Certification mark must follow the requirements described in the Quality Management & Procedures document.

14. 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.

Site
[ISO 22095:2020]
Location with geographical boundaries at which defined activities under the control of an organization are carried out.

Recycler
Organisation applying for Certification for a Recycling Process/es at a site.

Certification
Certification under this Audit Scheme.

Plastic
Material consisting of a polymer as defined in point 5 of Article 3 of Regulation (EC) No 1907/2006, to which additives or other substances may have been added, and which can function as a main structural component of final products, with the exception of natural polymers that have not been chemically modified.[6]

Recycled Plastic
[EN/ISO 472:2013, 2.612]
Plastic prepared by processing in a production process from plastics waste materials for the original purpose or for other purposes but excluding energy recovery. In a broad sense, the recycling of plastics covers any re-use of scrap material or discarded articles, including pyrolysis to recover useful organic chemicals. Recycled plastics may or may not be reformulated by the addition of fillers, plasticizers, stabilizers, pigments, etc.

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.

Segregation
[ISO 22095:2020, 3.3.2]
Chain of custody model in which specified characteristics of a material or product are maintained from the initial input to the final output. Note 1 to entry: Addition of material with different characteristics and/or grade to the input is not allowed. Note 2 to entry: Commonly, material from more than one source contributes to a chain of custody under the segregated model.

Controlled blending
[ISO 22095:2020, 3.3.3]

[6] *OJ L 155, 12.6.2019, p. 1–19*

Chain of custody model in which materials or products with a set of specified characteristics are mixed according to a certain criterion with materials or products without that set of characteristics resulting in a known proportion of the specified characteristics in the final output.

Broker
Any undertaking arranging the use, recovery or disposal of *Recycled Outputs*, *Input Plastic Waste* or waste on behalf of others, including such brokers who do not take physical possession of the aforementioned material streams.

Dealer
Any undertaking that acts in the role of principal to purchase (or charge for the removal of/accept free of charge) and subsequently sell (or pay for the treatment or disposal of/dispose of free of charge) *Input Plastic Waste*, *Recycling Outputs* or waste, including such dealers who do not take physical possession of the aforementioned material streams.

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

Current Operating Hours
The operating hours for the *Recycling Process* at the time of auditing.

Permitted Operating Hours
The maximum number of hours *Recycler* is able to run the Recycling Process under the terms of their operating licenses and permits.

Equipment Capacity
The theoretical maximum capacity of the *Recycler's* equipment with respect to the weight of *Input Plastic Waste* they can accept into the *Recycling Process* to produce a *Recycled Output*.

Site Capacity
The lower of either the sum of the *Equipment Capacity (s)* or the *Licensed Input Volume*.

Nominal Capacity
The running capacity of the Recycler's equipment with respect to the weight of *Input Plastic Waste* they accepted into Recycling Process to produce a *Recycled Output*. It is the calculated capacity value based on consumption figures during a determined period of time. It considers the planned production hours, the throughput and the identified availability of the line.

Batch
[EN 17615:2020, 3.17]
Quantity of material regarded as a single unit and having a unique reference.

Lot
Definite quantity of some commodity manufactured or produced under conditions that are presumed uniform.

Input Plastic Waste
The grade of plastic waste required for the *Recycling Process* for which the *Recycler* is applying for *Certification*.

Input Volume
The total weight of *Input Plastic Waste* delivered to *Recycler* during a given time period.

Licensed Input Volume
The total weight of all waste plastics that the Recycler is able to accept under the terms of its operating license in a given period of time.

Recycling Process
[art 3(17) OJ L 312 22.11.2008, p. 3]
Any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations. A *Recycling Process* produces a *Recycled Output* for which *Certification i*s being requested.

Recycled Output
Recycled plastic (recyclates) produced by *the Recycling Process* that can be used as a substitute for virgin polymer or other raw materials to manufacture products (excluding products for energy generation).

Pre-processed Waste Output
Waste outputs sent for subsequent recycling.

Yield
Amount of *Recycled Output* (by percent) that is produced from a given tonnage of *Input Waste Plastic*.

Beneficial Output
Beneficial Output refers to all the Recycled Output including by-products produced from Recycling Process that can be used as a direct replacement for virgin polymer or other raw material to manufacture goods (excluding those intended for energy generation).

Recycled Content
[CEN/TR 15353:2004, adapted]
Percentage by weight of recycled plastics in a product. Percentage by weight of *Certified Recycled Input* in *Output.* It must be defined between *Pre-consumer Material* and *Post-consumer Material*.

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.

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

Post-consumer household

Descriptive term covering[7] waste generated by households. Usually a synonym for 'garbage/rubbish' and 'domestic waste'. Household waste is the fraction of municipal waste collected from households, final holders of the waste. Nevertheless, this typology of waste is not limited to households, as all wastes resembling same characteristics are defined as such are also included.

Post-consumer commercial

Descriptive term covering waste produced by the operation of a trade or business professional, commercial, institutional, or governmental facility[8]. Commercial waste is a synonym for trade waste.9 Commercial waste is generated from the handling, transport, retailing, and stocking of products and services usually referred as tertiary packaging. Within this category of waste, we find also waste generated from public institutions (schools, museums, libraries, government buildings, hospitals and the similar) or from trade, small businesses, and office buildings. Commercial waste includes electronic and electrical appliances wastes when these are returned to the shops that manage the disposal. Also, beverage plastic bottles part of Deposit-Return schemes is typically considered as commercial waste, as the final holder of the product to be disposed of is the retail centre where these bottles are collected.

Off cuts, scrap, regrind material

[EN/ISO 472:2013, 2.1707]

Shredded and/or granulated recovered plastics material in the form of a free-flowing material. The term is frequently used to describe plastics material in the form of scrap generated in a plastics processing operation and re-used in-house. The term is also used to describe fine plastics powder used as a filler in the recovery of plastics.

Recycling Rate[10]

The amount of recycled municipal waste shall be the amount of municipal waste at the calculation point. The amount of municipal waste entering the recycling operation shall include targeted materials. It may include non-targeted materials only to the extent that their presence is permissible for the specific recycling operation.

Subcontracted Processing

When *Input Plastic Waste* has an operation carried out on it by a third party, for example, sorting, removal of contamination, etc, prior to it undergoing the Recycling Process. Subcontracted Processing is not a *Recycling Process* in itself.

Subcontracted Recycling

Input Plastic Waste delivered to the *Recycler* which is toll recycled by a third-party recycler also certified under this Audit Scheme where the *Recycler* retains ownership of the recycled output from the third-party recycler (toll recycling).

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[7] *OJ L 310, 25.11.2011, p. 11–16.*

[8] *ISO 6707-1:2017 Buildings and civil engineering works.*

[9] *Ibid.*

[10] *OJ L 112/26*

15. ANNEX II: CERTIFICATION MODULES

The Audit Scheme has developed the following Certification Modules which can be found detailed in separate documents:

- Module A: Food Contact (A1 and A2)
- Module B: Cosmetics and Household Applications
- Module C: Corporate Social Responsibility

16. ANNEX III: TABLE OF CHANGES

Version	Date	Section	Update description
1.1	June 2023	All	Update of nonconformities definition
1.1	June 2023	13, Section 1, 1.6	Clarification on accreditation of CBs
1.1	June 2023	13, Section 1, 1.7	Clarification on accreditation of CBs

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