AENOR
Confía

Specific Rules of AENOR Certificate of Conformity for the Certification of Recycled Plastic Content

Note: This document is a translation of the Spanish document RP E17.02 rev. 4. Spanish version always prevails over this translation.

RP E17.02

Revision 4
Date 2023-12-20

Index

Modifications in this edition:

- Added the requirement to check the mass balance of the annual stock.
- Amendment to Annex A

0 Introduction

The Certification Scheme developed in this document is part of a set of certifications developed by AENOR in order to help the plastic industry to demonstrate / guarantee the application of the circular economy principles and to achieve the objectives set by the European Strategy of the Plastics.

The environmental awareness of society means that consumers are demanding, not only quality sustainable production, but also respecting the environment and making rational use of natural resources.

For this reason, AENOR, in collaboration with the Spanish Association of Industrial Plastics (ANAIP) has developed several certification schemes focused on ensuring the transition towards a Circular Economy and closing the loop on transforming plastic waste into new resources.

These "circular" certifications cover the traceability of the recycled material, from the reception of the plastic waste for its treatment and putting it back on the market in the form of recycled material, the characterization of this recycled material in the form of pellets for its use and, finally, the declaration of the percentage of use of that recycled material in a new product.

But they also include the prevention of plastic discharge into the environment throughout the whole plastic value chain, in accordance with the Operation Clean Sweep (OCS) scheme, defined to prevent the involuntary emission of plastics into the environment, in form of pellets, powder or micro plastics.

The standards on which these certifications are based are:

- Traceability of waste in the plastic recycling process, in accordance with UNE-EN 15343.
- Content of recycled material used in a product, in accordance with UNE-EN 15343.
- Characterization of recycled material, in accordance with UNE 53978 for PE and UNE 53972 for PP.
- Zero pellet losses – Operation Clean Sweep®.

1 Purpose and scope

The present Specific Rules describes, in compliance with section 3.2 of the General Rules of Conformity Certificates, hereinafter the General Rules, the certification scheme for post-consumer recycled plastic content used in a plastic production or transformation process.

For this Specific Rules purpose, it is considered recycled plastic, whether it is pre-consumer or post-consumer. The cuts that come from the manufacturing process are not admissible. (See section 3 Definitions).

Any content not contemplated in this document can always be found in the General Rules. The General Rules always prevail over the present Specific Rules.

The certification of the post-consumer recycled plastic content used in the production or transformation process of a plastic product will be carried out in accordance with the requirements established in this document, in accordance with the UNE-EN 15343 *standard, Plastics recycling traceability and assessment of conformity and recycled content.*

By applying this Particular Regulation, any client can obtain two certificates:

- **Total recycled plastic content certificate**: This certificate can include products made with both post-consumer and pre-consumer recycled material, mixing the materials in different percentages from 0 to 100%. Products under this certification declare the total percentage of recycled plastic included in the product, without specifying its origin.

- **Post-consumer recycled plastic content certificate:** Under this certificate, products will only declare the percentage of post-consumer recycled material, without considering other types of recycled materials.

A client can request both the certificate the total recycled plastic content and also the specific post-consumer recycled plastic percentage.

Compliance with the parameters required in this document does not exempt from current law compliance.

2 Reference documentation

All the references and titles of documents or standards cited in this document are listed below:

— AENOR General Regulations on Certificates of Conformity (2020-12)

— UNE-EN ISO 9001 - Quality management systems. Requirements.

— UNE-EN 15342 Plastics. Recycled plastics. Characterization of polystyrene (PS) recyclates.

— UNE-EN 15343 Plastics. Recycled plastics. Plastics recycling traceability and assessment of conformity and recycled content.

— UNE-EN 15344 Plastics. Recycled plastics. Characterization of polyethylene (PE) recyclates.

— UNE-EN 15345 Plastics. Recycled plastics. Characterization of polypropylene (PP) recyclates.

— UNE-EN 15346 Plastics. Recycled plastics. Characterization of poly(vinyl chloride) (PVC) recyclates.

— UNE-EN 15347 Plastics. Recycled plastics. Characterization of plastic waste.

— UNE-EN 15348 Plastics. Recycled plastics. Characterization of poly(ethylene terephthalate) (PET) recyclates.

— UNE 53972 Plastics. Recycled Polypropylene (PP) materials. Characteristics and typology.

— UNE 53978 Plastics. Recycled polyethylene (PE) materials. Characteristics and classification.

3 Definitions

In addition to those included in the applicable legislation, the following definitions are considered:

Client: Organization that requests the certification of the product(s) it supplies and its subsequent registration in the AENOR Register to which AENOR has granted the certificate and license to use the trademark.

Manufacturer: The organization responsible for the manufacture of the product(s). The manufacturer may or may not be the customer. See point 5.1.

Recycling: Recycling is the process of converting waste materials into reusable new products or resources with which to make other products. In this way, waste undergoes a transformation process in order to be used in a manufacturing process, reducing the consumption of raw materials and contributing to the elimination of waste.

Recycler: Responsible for processing waste materials for use according to their original purposes or for other purposes, excluding energy recovery.

Transformer: Responsible for modifying the properties of polymeric compounds by various processes such as injection, extrusion, thermoforming, blowing, calendering, among others, to obtain products that adapt to the needs of the market and the requirements of each application.

Recycled content: The proportion, by mass, of the recycled material in a product. Only pre-consumer and post-consumer materials should be considered for the calculation of recycled content, consistent with the use of the following terms:

1) Virgen-Material

   Formulation material defined in the form of pellets, powder, crushed, etc., which has not been used or processed in a way other than in its manufacture, without adding any reprocessed or recycled material.

2) Recovered/Returned Material

   Material that would otherwise have been disposed of as waste or used to recover energy but has instead been collected and recovered as input material rather than new raw material, for a recycling or manufacturing process.

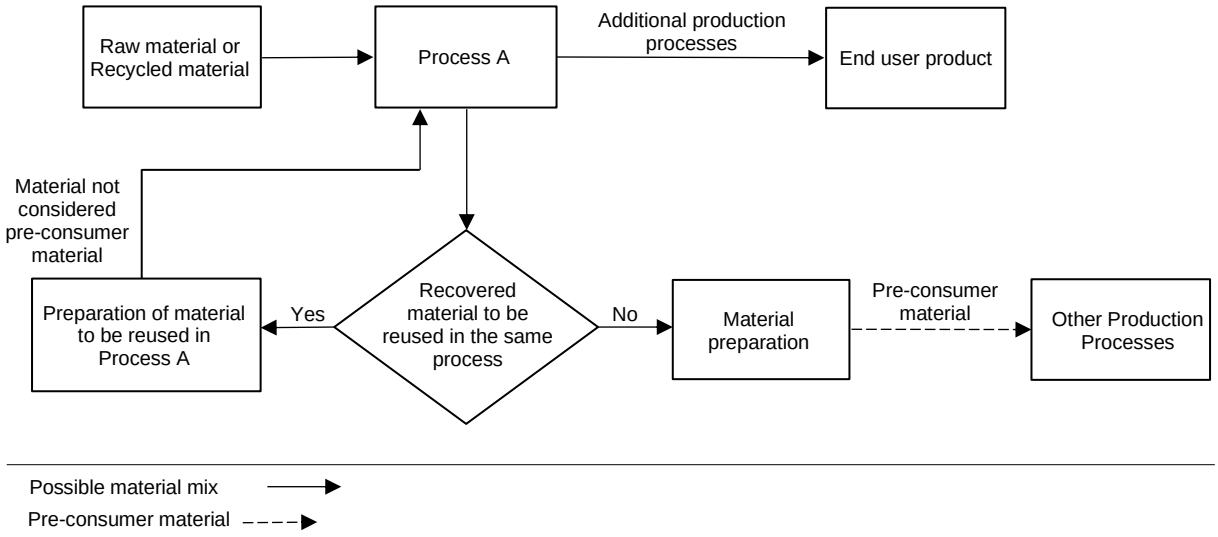
3) Recycled Material

   Material that has been reprocessed from a recovered (returned) material through a manufacturing process and included in a final product or component for incorporation into a product. This material can be post-consumer or pre-consumer.

4) Pre-consumer Material

Material diverted from waste generated during a manufacturing process, excluding the reuse of reprocessing materials, slabs or scraps, generated in a process and which have the ability to be reincorporated into the same process that generated them.

The same process involves the same manufacturing operation for the same type of product in the same or a different location.

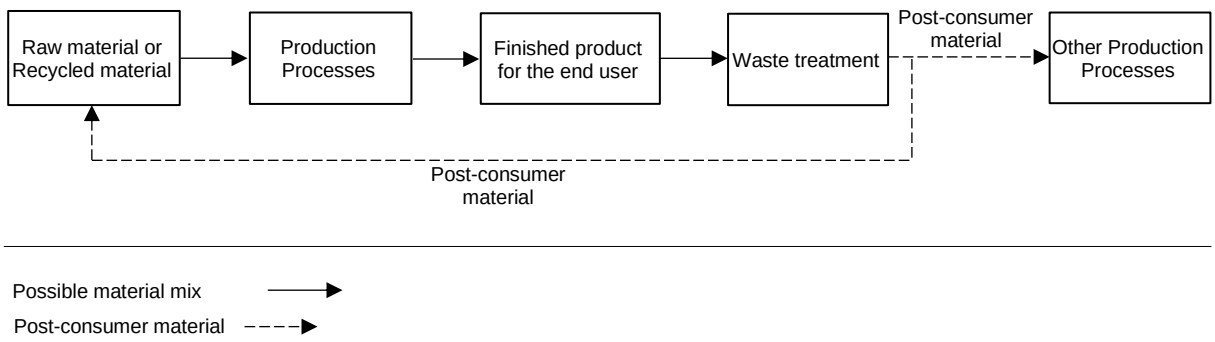


Pre-consumer material concept

5) Post-consumer Material

Material recovered from household waste or commercial, industrial and institutional equipment in their role as end users of a product.

This includes returns of products, or parts thereof, from the distribution chain of finished products to end users.



Post-Consumer Material Concept

4 Management of the Certification Scheme

The management of this certification scheme is entrusted to AENOR.

AENOR will assume the responsibilities related to the planning, implementation and management of the certification process of the content of recycled material in the production or transformation process of a plastic product, from the receipt of the certification applications to the completion of the process, including, where appropriate, the issuance of the final evaluation report and corresponding certificate.

5 Certificate Granting

5.1 Application

When an organization expresses its intention to obtain a certificate for the content of recycled material, it must complete the "application for product certification", established for this purpose by AENOR. This application shall be accompanied by the product description questionnaire (Annex A).

The application must be made for each production site where certification is to be requested.

If the customer and the manufacturer are different organizations, a collaboration agreement between them must be included together with Annex A and the application, evidencing that both undertake to comply with the provisions of the product certification application, or failing that, they must send said application signed by both parties.

The concession process shall be in accordance with the provisions of Chapter 4 of the General Regulations and the rest of this chapter.

5.2 Documents review

AENOR will study the information provided by the organization (Annex A of this document) together with all the documentary evidence that supports the information provided.

AENOR will check:

- Type of certification (post-consumer recycled content / total recycled plastic content).
- The number of percentages of recycled material for which certification is requested.

AENOR may request additional information from the organization if it deems it necessary for the correct definition of the request.

5.3 Initial inspection

Once all the documents have been reviewed, AENOR will contact the organization, with relevant information regarding the verification plan, proposed visit dates to the production center and the verification team designated for such activity.

During the visit, AENOR's audit team will check that the organization has implemented:

- A quality management system, in accordance with 5.3.1
- The control processes over the recycled material to be incorporated into the process, as defined in 5.3.2
- Certification of the content of recycled material in the final product, according to 5.3.3

5.3.1 Quality Management System

The audit team will verify that the organization has implemented a quality system in accordance with ISO 9001. The requirements are found in Annex B of this document.

5.3.2 Control processes on recycled material

The audit team will assess that the organization ensures that the recycled material incorporated actually comes from pre-consumer and/or post-consumer, for this it must document the following information for each batch of recycled compound that is incorporated into the manufacturing process:

Source	Type of recycled material/source (post-consumer, pre-consumer)
	Type of product from which the waste comes
	Origin (identification of the recycled material provider)
	Additional information about the recycled material (e.g., contact with known hazardous substances)
Test carried out by the recycler before supplying the plastic to the transformer	EN 15347 Characterization of recycled plastics from plastic waste
	Or, where applicable, a specific specification for the final application of the product. In the PE and PP standard, a typology has been established, it could be indicated in the case of recycled PE or PP material whether it is type A, B, C or D according to UNE 53978 or UNE 53972 Standard, as appropriate

This documentary control may be waived when the supplier of the recycled material has an AENOR certificate for traceability of recycled plastics issued in accordance with the UNE EN 15343 standard that certifies the origin of the material, the adequacy of the recycling process and the final declaration of the performance required for each material in the applicable standard.

AENOR will assess the acceptance of other certificates issued by independent certification bodies that have the corresponding accreditation for the activity of certifying the traceability of recycled plastic.

If the recycled material does not have any certification of the traceability of the recycling, AENOR will carry out, as part of the process of certification of the recycled content, an annual audit visit to the facilities of each of the suppliers of recycled material without a certificate to check their ability to provide the information required by each production batch both with regard to the traceability of the waste, as well as the recovery process and the final characterization of the batch supplied, checking the testing capacity of the characteristics required by the applicable regulations.

5.3.3 Certification of recycled material content in the final product

AENOR will verify that the records available for the initial assessment are sufficient and representative of production to be able to carry out the assessment.

The verification team will evaluate the traceability of the post-consumer recycled material in order to confirm, both that its origin is adequate, and that the percentage of recycled material declared by the organization match with the real parameters.

For this reason, the organization must present:

- Flowcharts of the main processes applied by the organization in the manufacture of the products for which certification is sought.
- Detailed formulas of the products manufactured, indicating their components and proportions, to verify that the programmed theoretical value exceeds the declared recycled content.
- A process control that ensures that recycled materials are being dosed in the indicated proportion during production, as far as possible with batch dispenser records, alarm control systems in restrictive margins in the event of an incident, recorded self-control checks throughout production, etc.
- Calculation protocol, applied by the organization, for the determination of the actual content of recycled material used in each production, as a percentage, of recycled material incorporated into the manufacturing process. This calculation protocol will be validated during the initial audit and will be used as a basis for possible extensions of the scope of the certificate, both in terms of formulations with different percentages of recycled material and for the inclusion in the AENOR certificate of conformity of new references manufactured with the same percentage of recycled material already declared.
- Final record of the mass balance used at the output of the manufacturing process.

In addition, where possible in view of the audited manufacturing process, during the initial visit, the method defined by the company will be validated to determine, by direct verification of the recycled material consumed in a production and its comparison with the final weight of the output material, the actual content of recycled material used in that production.

This specific mass balance exercise will be carried out for each of the different transformation processes existing in the organization and that have been subject to certification (extrusion, injection, etc.).

On the other hand, the control of the equipment used for the determination of these measurements will comply with the provisions of Annex B of this document, with special emphasis on the calibration of the measuring equipment used, both in gravimetric doses and in weighing scales for bags, octavins or big bags and the final product.

5.4 Audit Report

Once the audit has been completed, AENOR will prepare a report recording the non-conformities, observations identified during the certification visit, as well as any comments that may be noteworthy, which will be signed by both AENOR and the organization's representative.

If non-conformities are detected, the organization will have a period of 30 days to rectify them, for which it must submit a corrective action plan to AENOR, which will proceed to study and evaluate it.

5.5 Evaluation process and Granting of the Certificate

In view of the content of the certification report and, where appropriate, the corrective action plan provided, the technical review of the file will be carried out and AENOR will decide on the granting of the certificate.

In the event of a concession, AENOR will send the organization a certificate, valid for 3 years, which will include all products manufactured under the same percentage of recycled material, specifying whether this percentage is post-consumer or refers to the total use of recycled plastic.

AENOR will issue as many certificates as the percentages of use of recycled material declared by the company.

In case of denial, AENOR will communicate the reasons and the deadline for a new request to the organization.

5.5.1 Product marking and use of the AENOR logo

The Organization that holds any of the certificates that can be issued under this Regulation may use each of the brands independently or both, in case the certified products are within the scope of both certifications.

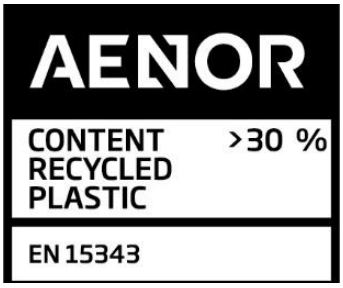
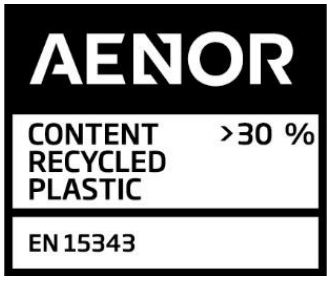
A product made from post-consumer and pre-consumer recycled material will be able to mark the total percentage of recycled plastic contained in the product and, in addition, how much of that percentage is post-consumer.

For example, in the case of a product made from 80% total recycled plastic, of which 50% is post-consumer recycled plastic, you can use both logos as follows:

5.5.2 Use of the markup in the case of third parties

If the end customer of these certified products with a certain recycled content would like to refer to the certification of the recycled content of the container or packaging, in order to specify that the certification refers to the container or packaging and not to its content, the logo will be used with the corresponding percentage, adding next to it, and if possible under it, the mention of "Certification applicable to the container or packaging", and the certificate number, E17 / xxxx.

Container	Packaging
	
Certification applicable to the container **Certificate no. E17/0xxx**	**Certification applicable to the packaging** **Certificate no. E17/0xxx**

If the AENOR logo is to be used by third parties, the certificate holder shall submit to AENOR the design for the intended use.

6 Certificate Survillance

AENOR will make an annual visit to the organization, in order to re-evaluate the compliance with the requirements established in chapter 5 of this document and verifying that the percentage of post-consumer recycled material initially checked is still maintained.

In addition, during the follow-up audit, the organization's annual mass balance will be reviewed to reflect the inputs of recycled, stored, manufactured, and dispatched material, following the general scheme presented in fig.3.

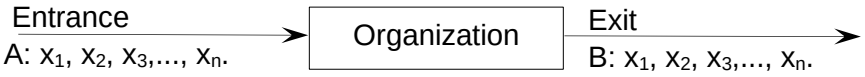


Fig.3 Mass balance concept

Where:

A, the total inflow of recycled material, is equal to the sum of the inflows for each of the components: x_1, x_2, x_3,..., x_n .

$$A = \Sigma x_1 entry + \Sigma x_2 entry + \Sigma x_3 entry + ... + \Sigma x_n entry$$

B, the total outflow of recycled material, is equal to the sum of the outflows for each of the components: x_1, x_2, x_3,..., x_n.

$$B = \Sigma x_1 output + \Sigma x_2 output + \Sigma x_3 output + ... + \Sigma x_n output$$

Prior to the follow-up visit, the organization will carry out a mass balance exercise of recycled material starting from the date of the previous audit, which will be shown to the auditor for analysis, who will be able to carry out the necessary checks for verification.

During these visits, AENOR will prepare a report identifying all the non-conformities, observations, along with any noteworthy comment, which will be signed by both AENOR and the representative of the organization.

In case of non-conformities, the organization will have a 30-days period to correct them and send a corrective action plan to AENOR, which will proceed to study and evaluate it, communicating to the organization its final decision.

7 Certificate Modifications

The organization must keep AENOR duly informed of any changes in the production processes that may affect the percentage of recycled content initially declared.

When the customer requires an extension, either of a percentage or of a new product, they must inform AENOR by sending Annex A, indicating the new percentages or products to be included in the certificate. AENOR will study the information provided, deciding and, where appropriate, informing the organization, whether a visit to the production center is necessary prior to the modification of the certificate, or whether a documentary review will be carried out, in which case, AENOR will request the relevant documentation for such assessment.

In that case, the scope of the visit will be limited to the verification of the requirements established in chapters 5.3.2 and 5.3.3 of this document.

After a technical review, AENOR will decide on the modification of the certificate, proceeding to modify it to adapt it to the new situation.

8 Economic conditions

AENOR will establish and communicate to the organizations/clients requesting certification the economic conditions corresponding to the activities related to the granting, monitoring, and renewal of the Certificate in the corresponding offer.

Annex A

Request for Quotation: Recycled Plastic Content

Company Name and Tax ID:	
Full address of the production site:	
Modifying an existing certificate?	YES ☐ (Indicate N°)
Contact person: name, phone, email	
Number of workers (associated with the activity)	
Surface area in m^2 (associated with this activity)	

Product Definition & Production Process:

Product Composition:

Reference	Virgin raw material (%)	Recycled material * (%)	Others (specify % of other materials)

*If you want the certificate to indicate "post-consumer recycled plastic", please indicate in the table the % of total recycled and the % of post-consumer plastic.

Trademark(s) to be included in the certificate:

Date:

Annex B

Quality System Requirements

Any organization that wishes to obtain the AENOR Certificate must have a quality management system in place applicable to the manufacture of the products for which it has requested the certificate that fully meets the requirements of the ISO 9001: 2015 standard.

If the organization holds a valid ISO 9001 certificate, issued by a body accredited by an entity that meets the EA or IAF mutual recognition agreements, for those products manufactured with the recycled material, it will not be necessary to verify the system implementation.

According with the previous paragraph, AENOR services will have access to the audit reports signed by the certifying body, requesting the manufacturer to translate them if necessary.

All control and measurement equipment used to verify the calculations described in chapter 5.3.3 will be subject to timely calibration, providing the calibration certificates. In case the calibration has been carried out in an accredited laboratory, the evidence of the calibration certificate will suffice.

Otherwise, during the audit, the organization will provide, together with the calibration certificate, the traceability to international standards of the standards used for calibration, as well as the calibration procedure used by the laboratory, the uncertainty of the measurement and the qualification requirements person responsible for accepting the calibration reports received stablished by the company.