



Specific Rules of AENOR Certificate of Conformity for the Certification of Traceability in the Plastic Recycling Process

Note: This document is a translation of the Spanish document RP E17.01 rev. 4. Spanish version always prevails over this translation.

RP E17.01

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Modifications in this edition:

- Annex A is amended

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 guarantee the traceability of the recycled material along the whole value chain, up to the consumers. From the reception of plastic waste to be treated and put back in the market, the characterization of this recycled material as pellets and, finally, the declaration of the percentage of post-consumer recycled material used 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:

- Plastics recycling traceability and assessment of conformity and recycled content, 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 the traceability of the plastic recycling process.

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.

This document describes AENOR certification scheme for plastics recycling traceability.

AENOR certification of traceability in the plastic recycling process will be carried out in accordance with the standard UNE-EN 15343 *Plastics. Recycled plastics. Plastics recycling traceability and assessment of conformity and recycled content*.

The objectives of the certification are:

- 1) **To ensure the traceability** of the recycled material from the reception of the plastic waste by the recycler, to a final product in the form of pellets.
- 2) **To ensure the manufacturing process** of the recycled material, including all the steps, from the reception of the plastic waste by the recycler to the final product.
- 3) **To ensure the characterization** of the final recycled material, thus facilitating its use by the transformer.

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

2 Reference documents

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

- AENOR General Rules for 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:

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 the processing and treating of waste materials to be used again according to their original purposes or for other purposes, excluding energy recovery.

Virgin 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.

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.

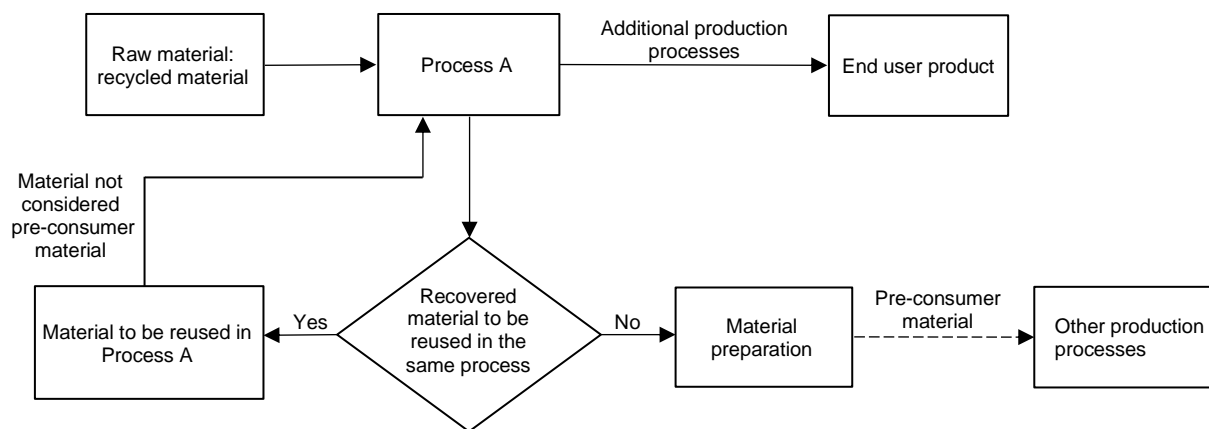
Manufacturer: The organization responsible for the manufacture of the product(s). The manufacturer may or may not be the customer. See point 5.1.

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.

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.

Pre-consumer Material: Material diverted from the 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.

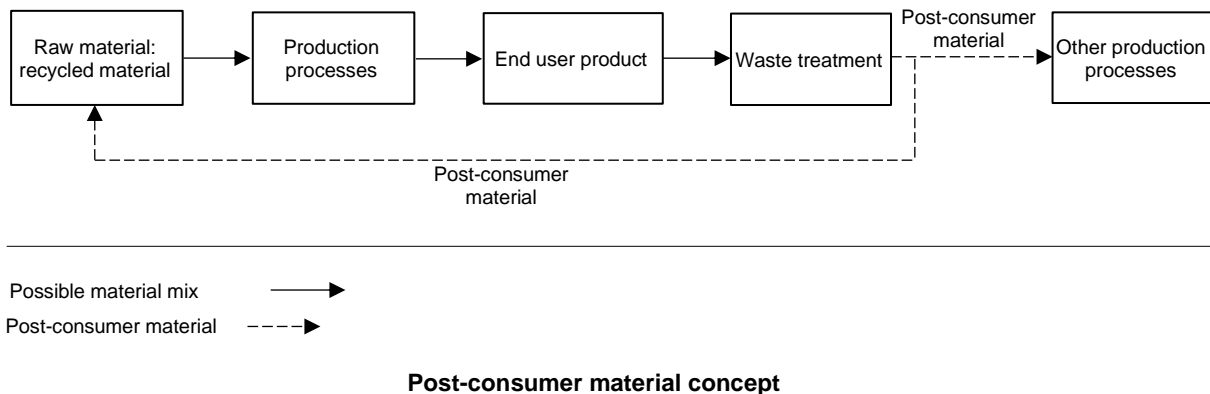


Possible material mix →
Pre-consumer material - - - ->

Pre-consumer material concept

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 of them, from the distribution chain of finished products to end users.



Batch: Set of units of a product that have been made and/or processed or packaged under similar conditions. The batch is determined by parameters set in advance by the organization. A set of units can be reduced to a single unit of product.

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 traceability certification process in the plastic recycling process, 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 the AENOR certificate for the traceability of recycled plastic, it must complete the "product certification request", 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 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, informing them of the date of the visit to the production center and the audit team designated for the activity.

During the visit, AENOR verification team will check that the organization has implemented:

- A quality management system, in accordance with 5.3.1.
- The processes and steps required for the manufacture of the recycled material as defined in 5.3.2.
- The method of characterization of the recycled material before it is placed on the market, 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 can be found in Annex B to this document.

5.3.2 Necessary steps of the recycled material manufacturing process

The audit team will assess that the organization has the necessary procedures and means to ensure the process, drawing special attention to:

5.3.2.1 Receipt of raw materials in the form of plastic waste

The organization will ensure the origin of the plastic waste incorporated into its process. For each item received, the company must:

- Control the incoming waste, identifying its types (HDPE, LDPE, PP, PET, PS, ABS, ...), quantities, origin (post-consumer, pre-consumer) and presentation (sacks, big bags, bales or other options).
- Keep all delivery notes and invoices for deliveries.
- Type of product from which the waste comes.
- Identify if the waste may contain known hazardous substances.
- Document the characterization of the waste before processing, in accordance with UNE EN 15347.

5.3.2.2 Transformation process of recycled plastic waste into pellets

Once the plastic waste has been received, the organization will ensure that it has the necessary means of production to carry out the following processes, insofar as they are applicable:

- Separation of not suitable materials, and segregation by colour, if applicable
- Shredding of selected waste
- Washing, drying, and centrifuging of shredded material
- Homogenization of the material prior to extrusion
- Extrusion and pelletizing of the final recycled material
- Packaging and optimal storage of recycled material

5.3.2.3 Means of recycled material characterization, own or outsourced

The organization will ensure that once the production process of the recycled material is finished, its characterization is carried out in accordance with the applicable standards for each different materials:

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

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

Along with each shipment of material, the organization will provide an analysis report showing the characterization parameters of these materials, in accordance with the applicable standards for each recycled product.

If using waste from different origins (pre-consumption or post-consumption), the organization will carry out a mass balance that determines the percentage of post-consumer material supplied to the customer and will indicate it in the analysis report.

All measurement equipment shall comply with the Annex B of this document, with particular emphasis on the calibration of the measurement equipment used to determine the applicable characteristics.

5.4 Audit Report

Once the verification process is completed, AENOR will fill out a report with all non-conformities or observations identified during the visit, as well as any noteworthy comments, and it 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.

5.5 Evaluation process and Granting of the Certificate

AENOR will review the audit report and the corrective action plan provided (if applicable), and will decide whether grant of the certificate.

In the event of a concession, AENOR will send the organization a certificate, valid for 3 years, which will include the list of the references of the recycled material subject to the certification, the base polymer, the origin of the waste used, pre-consumer/post-consumer and the recycled plastic content of each reference.

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

5.5.1 Use of the AENOR logo:

Once the certificate has been granted, the organization will refer to the AENOR certificate by using the corresponding logo.

The organization holding the certificate will make use of the logo presented below.

This logo may appear in the technical data sheets defined for each of the certified references, as well as in the certificates of analysis issued by the organization to accompany the shipments of the materials.



6 Certificate Surveillance

AENOR will make an annual visit to the organization, to re-evaluate the compliance with the requirements established in chapter 5 of this document and verifying that the declared traceability of recycled plastics according to this document is still maintained.

During these visits, AENOR will prepare a report identifying all the non-conformities, observations, strengths, and opportunities for improvement, 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 those changes that may affect the traceability of recycled plastic initially declared.

When the certified company requires an extension or modification of the certificate, it must inform AENOR by sending Annex A, indicating the new 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.

If this is necessary, the scope of the visit will be limited to the verification of the requirements established in 5.3.

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 the economic conditions related to the activities of granting, monitoring and renewal of the Certificate to those organizations / clients that request the certification.



Annex A - Request for Quotation: Traceability of Recycled Plastic

Company Name and Tax ID:	
Full address of the production site:	
Modifying an existing certificate?	Yes <input type="checkbox"/> (Indicate N°)
Contact person: name, phone, email	
Number of workers (associated with the activity)	
Surface area in m ² (associated with this activity)	

Activities carried out at the plant where the certification is requested

	Yes	No
• Reception of raw material in the form of plastic waste	<input type="checkbox"/>	<input type="checkbox"/>
• Sorting and sorting of plastic waste	<input type="checkbox"/>	<input type="checkbox"/>
• Washing and shredding of plastic waste	<input type="checkbox"/>	<input type="checkbox"/>
• Manufacture of raw material in the form of powder or pellets	<input type="checkbox"/>	<input type="checkbox"/>
• Determination of Physical Characteristics	<input type="checkbox"/>	<input type="checkbox"/>

Materials marketed as recycled:

PE <input type="checkbox"/>	PP <input type="checkbox"/>	PET <input type="checkbox"/>	PVC <input type="checkbox"/>	PS <input type="checkbox"/>
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Other (specify):

List of grades or references of recycled material to be included in the certificate:

Trademark(s) to be included in the certificate:

If you consider it necessary, you can find more information here:



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.

The audit team will evaluate that the organization has implemented the necessary procedures and means to ensure the process, drawing special attention to:

- Reception of raw materials in form of plastic waste.
- Transformation process of recycled plastic waste into pellets.
- Means of recycled material characterization, own or outsourced.

All control and measurement equipment used for the verifications 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 established by the company.