



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. 6. Spanish version always prevails over this translation.

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Modifications in this edition:

- The requirements for evaluating flake suppliers have been modified.

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.
- 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

The references and full titles of the documents or standards cited in the rest of this document are listed below.

- General Rules and Regulations for Certificates of
- UNE-EN 15342. Plastics. Recycled plastics. Characterization of recycled polystyrene (PS).
- UNE-EN 15343. Plastics. Traceability and conformity assessment of plastics recycling and recycled content.

- UNE-EN 15344. Plastics. Recycled plastics. Characterization of recycled polyethylene (PE).
- UNE-EN 15345. Plastics. Recycled plastics. Characterization of recycled polypropylene (PP).
- UNE-EN 15346. Plastics. Recycled plastics. Characterization of recycled poly(vinyl chloride) (PVC).
- UNE-EN 15347. Plastics. Recycled plastics. Characterization of plastic waste
- UNE-EN 15348. Plastics. Recycled plastics. Characterization of recycled poly (ethylene terephthalate) (PET).
- UNE-EN ISO 9001- Quality management systems. Requirements
- UNE 53978. Plastics. Recycled polyethylene (PE) materials. Characteristics and typology
- UNE 53972. Plastics. Recycled Polypropylene (PP) materials. Characteristics and typology

3 Definitions

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

Recycling: Recycling is the process by which waste is converted into new products or material resources with which to manufacture other products. In this way, waste undergoes a transformation process so that it can be used in a manufacturing process, reducing the consumption of raw materials and contributing to the elimination of waste.

Recycler: Responsible for the processing of waste materials to use them for their original purpose or for other purposes, excluding energy recovery.

Virgin Material: Material of defined formulation in the form of pellets, powder, crushed, etc., which has not been used or processed other than as required in its manufacture and to which no reprocessed or recycled material has been added.

Client: Organization requesting certification of the product(s) or service(s) it supplies and its subsequent registration in the AENOR Register to which AENOR has granted the certificate and the license to use the mark.

Manufacturer: Organization in charge of manufacturing 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 for energy recovery, but instead has been collected and recovered as input material instead of 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 may be post-consumer or pre-consumer.

Preconsumer Material: Material diverted from the waste stream during a manufacturing process. This excludes the reuse of materials such as rework materials, scrap or remnants generated in the process and which have the capacity to be reintroduced into the same process that generated them.

Postconsumer Material: Material generated in domestic, commercial, industrial or institutional facilities in their role as end users of a product, which can no longer be used for its original purpose. This includes the return of material to the distribution chain.

Batch: A defined quantity of some article of consumption manufactured or produced under uniform conditions.

4 Management of the certification scheme

The management of this certification scheme is entrusted to AENOR.

AENOR will assume the competences related to the planning, execution and management of the traceability certification process in the plastic recycling process, from the reception of the certification applications until the end of the process, including, if applicable, the issuance of the final evaluation report and the corresponding certificate.

5 Certificate Granting

5.1 Application

When an organization expresses its intention to obtain a certificate of recycled material content, it must complete the "application for product certification" (document R-DTC 553 in its latest revision), established for this purpose by AENOR. In addition, AENOR must have the product description questionnaire (Annex A) completed by the applicant company.

The application must be submitted for each production center where certification is to be requested, indicating the list of products to be certified.

5.1.1 Extension of certificates

In case the client and the manufacturer are different organizations, the new extension holder company may request an extension of certificates already issued and in force. To do so, it shall submit, together with Annex A, the certification request signed by both companies: extension holder and manufacturer. Additionally, an authorization from the manufacturer to the new holder shall be required, evidencing the certificates subject of the extension and the trademark(s) that will be included in such extension. The extension holder also undertakes to comply with the provisions of the applicable AENOR Regulations

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

5.2 Study of documentation

AENOR will study the information provided by the organization (Annex A of this document and, in the case of certificate extension, the manufacturer's authorization) together with all the documentary evidence supporting the information provided.

AENOR may request additional information from the organization if deemed necessary for the correct definition of the application.

5.3 Initial visit

Once the documentary verification has been carried out, AENOR will contact the organization, informing it of the date of the visit to the production center and the audit team designated for the activity.

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

- A quality management system, in accordance with point 5.3.1.

- The processes and steps necessary for the manufacture of the recycled material, as defined in point 5.3.2.
- The procedure for the characterization of the recycled material before its commercialization, according to point 5.3.3.

5.3.1 Quality management system

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

5.3.2 Necessary steps of the recycled material manufacturing process

The audit team will evaluate that the organization has the necessary procedures and means to ensure the process to be carried out, highlighting the following stages:

5.3.2.1 Receipt of raw materials in the form of plastic wastes

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

- To monitor incoming waste by identifying its types (HDPE, LDPE, PP, PET, PS, ABS, ...), quantities, origin (post-consumer, pre-consumer) and presentation (bags, big bags, bales or other options).
- To have the corresponding delivery notes and invoices for deliveries.
- Determine the type of product from which the waste originates.
- Identify whether the waste may contain known hazardous substances.
- Document, if necessary, the characterization of the waste prior to processing, in accordance with UNE-EN 15347.
- For manufacturers of recycled material in the form of pellets from recycled materials in flake form, it will be requested that:

Have 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.

If the AENOR certificate is not available, the following criteria shall be followed:

1. **Accredited certified recycled material:** recycled material certified in accordance with the UNE-EN 15343:2008 standard, certified by an accredited certification body.
2. **Recycled material with a non-accredited certificate:** If the recycled material has a traceability certificate issued by a non-accredited certification body, by a certification scheme that does not use accreditation or does not evidence that it has been certified according to UNE-EN 15343:2008, AENOR will assess the acceptance of such certificates and will keep the records justifying the decisions taken.
3. **Recycled material without certification:** If the recycled material acquired does not comply with the above assumptions, AENOR will require the evaluated company to implement measures that ensure that the recycled materials acquired comply with the traceability requirements of the UNE-EN 15343:2008 standard, such as, for example, compliance audits of its suppliers, of which a documentary record of their performance and the aspects evaluated shall be kept. In addition, AENOR will carry out an annual audit of each recycling supplier to confirm that the material supplied complies with the traceability and characterization requirements of the UNE-EN 15343:2008 application standard.

In, these cases, addition the organization must have a technical data sheet of the recycled material used and, for each batch of recycled material received, must receive a certificate of analysis in accordance with the characteristics required in the applicable standards for each of the different materials:

- UNE-EN 15342. Plastics. Recycled plastics. Characterization of recycled polystyrene (PS).
- UNE-EN 15344. Plastics. Recycled plastics. Characterization of recycled polyethylene (PE).
- UNE-EN 15345. Plastics. Recycled plastics. Characterization of recycled polypropylene (PP).
- UNE-EN 15346. Plastics. Recycled plastics. Characterization of recycled poly(vinyl chloride) (PVC).
- UNE-EN 15348. Plastics. Recycled plastics. Characterization of recycled poly(ethylene terephthalate) (PET).

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 color, 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 Medios para la caracterización del material reciclado, propios o subcontratados

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.

With each shipment of material, the organization will provide an analysis bulletin reflecting the values obtained in the characterization of these materials in accordance with the applicable standards for each of the recycled products.

In the case of using waste from different origins (pre-consumer or post-consumer), the organization shall expressly indicate in the aforementioned analysis bulletin and product data sheet the percentage of pre-consumer and post-consumer material supplied to the

client, as well as the percentage of additives, colorants or fillers if added to the recycled material.

The equipment used for the determination of these measurements shall comply with the provisions of Annex B of this document, with special emphasis on the calibration of the measuring equipment used for the determination of the applicable characteristics.

5.4 Audit report

Once the audit process has been completed, AENOR will draw up a report containing a record of the non-conformities and observations identified during the audit visit, as well as any significant comments.

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

5.5 Evaluation and awarding of the certificate

In view of the contents of the audit report and, if applicable, 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 case of concession, AENOR will send the organization a certificate, valid for 3 years, which will include a list of the references of the recycled material subject to certification, the base polymer, the origin of the waste used, pre-consumption/post-consumption, and the recycled plastic content of each reference.

In case of refusal, the reasons will be communicated to the organization and a deadline will be given for a new application.

5.5.1 Use of the AENOR logo

Once the certificate has been awarded, the organization shall make reference to the AENOR certificate by using the corresponding logo.

The organization holding the certificate shall use the logo presented below.

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



6 Certificate Surveillance

On an annual basis, AENOR will visit the organization to re-evaluate compliance with the requirements established in Chapter 5, verifying that the traceability of the recycled plastic and all additional requirements established in this regulation continue to be maintained.

From these audits, AENOR will draw up a report where the non-conformities and observations identified during the audit visit will be recorded, which will be signed both by AENOR and by the organization's representative.

In the event that non-conformities are detected, the organization shall have a period of 30 days to correct them, for which it shall send a corrective action plan to AENOR, which shall proceed to study and evaluate them, informing the organization of the final decision of the audit.

7 Certificate modifications

The organization shall keep AENOR duly informed of any changes in production processes that may affect the traceability of recycled plastic.

When the certified company requires an extension or modification of the certificate, it shall inform AENOR by sending Annex A, indicating the new products to be included in the certificate. In general, it shall carry out a documentary review, in which case, AENOR shall request the relevant documentation for such evaluation. AENOR will study the information provided and its history, deciding and, if necessary, informing the organization, if a visit to the production center is necessary prior to the extension or modification of the certificate, or if a visit to the production center is necessary before the extension or modification of the certificate, or if a visit to the production center is necessary before the extension or modification of the certificate, or if a visit to the production center is required.

The documentation required in the extension processes has the objective of evidencing the transformation of a new product, processed and characterized with the same technology and equipment as the products already certified, and to evaluate the percentage and origin of the residue used in accordance with this Regulation. For this purpose, a production order is required for this new product where the above defined is verified, including the technical specifications sheet and the corresponding certificate of analysis per batch of processed raw material with all the required parameters in accordance with the applicable standard. Once all the documentation sent has been evaluated, the audit team analyzes whether it is sufficient to issue the extension or modification of the certificate.

In the case of that the client requires an extension or modification of the certificate for a new product, processed and characterized by means of a different technology and equipment to the one already certified, AENOR will inform the organization of the need to visit the production center. In this case, the scope of the visit shall be limited to the verification of the requirements established in section 5.3.

In view of the result of the technical review of the file, AENOR will decide on the extension or modification of the certificate, proceeding to its edition 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 - Descriptive questionnaire: Traceability of recycled plastics**

Company name and CIF of the applicant of the certificate:	
Company and complete address of the recycled plastic recovery center:	
Contact person: name, phone number, e-mail address	
No. of employees (associated with the activity)	
Surface area in m ⁽²⁾ (associated with this activity)	

Activities carried out in the center that is the object of the Yes No application:

- Receipt of raw material in the form of plastic residue
- Sorting and triage of plastic waste
- Washing and shredding of plastic waste
- Manufacture of raw material in powder or pellet form
- Determination of physical characteristics

<input type="checkbox"/>	<input type="checkbox"/>

References requested:

REFERENCE	MATERIAL	COLOR	PLASTIC RECYCLED CONTENT	ORIGIN OF PLASTIC WASTE

For more information, please click [here](#):

Annex B

Quality system requirements

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

When the organization is in possession of a valid ISO 9001 certificate, issued by a body accredited by an entity signatory of the mutual recognition agreements EA (European Accreditation) or IAF (International Accreditation Forum), and whose scope includes the manufacture of products for which the recycled material is intended, it is not necessary to verify the implementation of the system.

Under the conditions indicated in the previous paragraph, the AENOR services shall have access to the reports of the audits of the quality management system of the certifying body, requesting the manufacturer to translate them if necessary.

In any case, the audit team will evaluate that the organization has the necessary procedures and means to ensure the process to be carried out, highlighting the following stages:

- Receipt of raw materials in the form of plastic wastes
- Means for the transformation of such plastic waste into recycled material pellets
- Means for the characterization of this recycled material, in-house or outsourced

The equipment used for the control of the parameters indicated in section 5.3.3 shall be subjected to the appropriate calibration demonstrable by means of the evidence of the corresponding calibration certificates. In case the calibration has been carried out in an accredited laboratory, the evidence of the calibration certificate shall be sufficient.

Otherwise, 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 measurement uncertainty and the qualification requirements established by the company for the person responsible for the acceptance of the calibration reports received will be available during the certification visit.