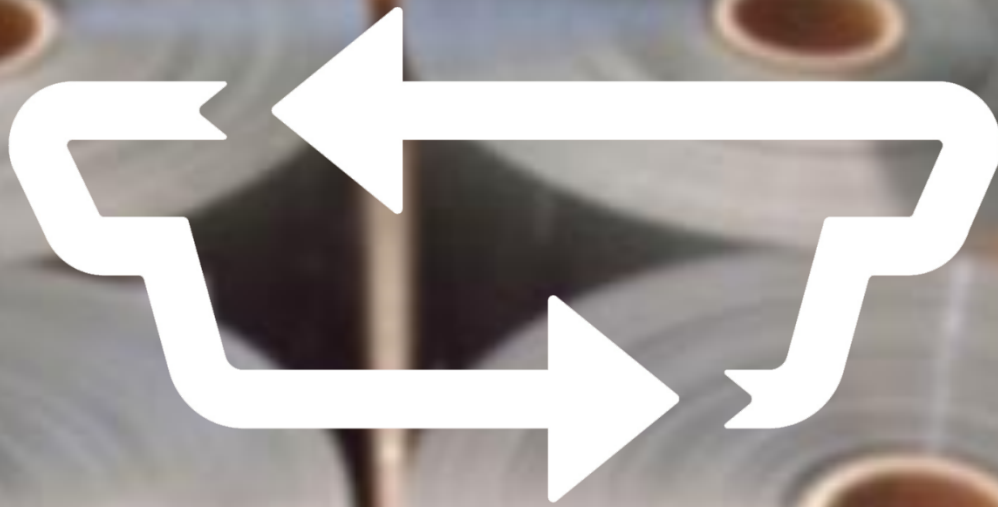


RETRAY



PROCEDURE  
RETRAY CERTIFICATION

ED. DECEMBER 2023.1

SHEET PRODUCERS  
AND  
SHEET PRODDUCERS + THERMOFORMERS



## **ECONSENSE FOUNDATION**

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## INTRODUCTION

The ECOSENSE FOUNDATION is a non-profit organization that promotes the use and recycling of thermoformed PET food packaging in line with the commitment to environmental care and initiatives related to circular economy policies.



**RETRAY** IS A CERTIFICATION SCHEME OF THE ECONSSENSE FOUNDATION TO CONSOLIDATE A CIRCULAR ECONOMY MODEL IN THE VALUE CHAIN OF THERMOFORMED PET PACKAGING BY MEANS OF THE QUANTIFICATION OF RECYCLED MATERIAL CONTENT AND THE VERIFICATION OF ITS RECYCLABILITY.

This certification recognizes and disseminates the work of those companies that introduce, as a secondary raw material in their production processes of manufacture or use of sheet and/or thermoforming, both monolayer and multilayer, colorless transparent recycled PET from recycling processes in the tray-to-tray circuit approved by the Foundation, along with recycled PET from other sources.

RETRAY has two aspects: as a **process certification (RETRAY Process)** and as a **product certification (RETRAY product)** and, therefore, the same company can obtain more than one certificate, depending on the number of facilities and products it wants to certify. Specifically:

1. The **RETRAY Process** is given to the manufacturing processes of: sheet, sheet + thermoformed body, thermoformed body or packaging.
2. **The RETRAY Product** certification is granted to specific products made of PET sheet, rigid thermoformed bodies (base, lid) or packaging manufactured in the facilities that have the previously detailed processes already certified.

The **objectives** of the RETRAY Process and RETRAY Product certifications are:

1. Increase the transparency of the PET sheet and PET thermoformed packaging industry by ensuring traceability in the reincorporation of waste generated throughout the entire value chain, from its manufacture (pre-consumer waste) to its use by end consumers (post-consumer waste).
2. Value the environmental performance of companies that ensure the recyclability of their products through eco-design and incorporating colorless transparent

recycled raw materials from the tray-to-tray circuit into their production chain, along with recycled PET from other sources.

3. Contribute to the objectives established in the European legislative framework on packaging and plastic packaging waste and its transposition in the different member countries, especially with regard to the promotion of a circular economy for plastics, the prevention of waste generation and the efficient management of waste.
4. Close the economic flow by maintaining the material value of PET sheets and packaging, by reintroducing them into the production circuit as secondary raw materials, and by reducing the use of raw materials from non-renewable resources.
5. Provide a label that allows both consumers and agents throughout the value chain to identify those suppliers that meet the certification requirements in their processes and products.

**The RETRAY Process and RETRAY Product certifications incorporate the requirements of the EN 15343 standard by means of the 7B and 7C sections respectively.**

This allows Sheet manufacturers that so wish to use the certificates to justify **the percentage content of recycled plastic incorporated in the products placed on the market over a certain period of analysis.**

Definition of  
"Sheet Format"  
or  
"Thermoformed  
Sheet Format"

The RETRAY Product certification is obtained for "**Sheet Formats**" or "**Thermoformed Sheet Formats**" defined this as one that is characterized by a certain design in terms of its composition and recycled content. Any variation in the recycled content and/or composition, understood as all the materials and additives with which the sheet is manufactured expressed in percentage by weight (of each of material/additive) over the total, will lead to the generation of a new Format and, therefore, the need for additional certification.

This definition means that if, for example, several products to be certified have the same composition and only the dimensions and/or weights of the reels are different, or the thermoformed sheets, it shall only be necessary to evaluate one of the formats, the result being extrapolated to all the others that shall be considered as the same "Sheet Format" or, where appropriate, the same "Thermoformed Sheet Format".

Clarifications with examples for the determination of the number of Sheet Formats or Thermoformed Sheet Formats to certificate are included in Annex 2.

## 1. OBJECT

The object of this procedure is to **establish the requirements that must be met** by:

- 1) **Sheet Manufacturers:** companies dedicated to the manufacture of thermoplastic sheets for the manufacture of rigid thermoformed bodies for food use, or
- 2) **Sheet Manufacturers + Thermoformers:** companies that, in addition to manufacturing the sheets mentioned in the previous section, use these products as base elements for the manufacture of rigid thermoformed bodies,

who wish to obtain a **RETRAY Process and/or RETRAY product accrediting certificate**, as defined in the introductory section. Both certifications shall be issued by a **Certification Body authorized** by the Econsense Foundation (henceforth, **the Foundation**) for its RETRAY certification scheme according to the conditions established in the **General Regulations** of said scheme.

Therefore, this procedure shall be taken as a **reference document for establishing the criteria for conducting audits by authorized Certification Bodies**.

In this sense, a **Certification Body accredited for the ISO/IEC 17065 standard in the RETRAY scheme** by an Accreditation Body that is member of EA (European Cooperation for Accreditation) or IAF (International Accreditation Forum), which has signed mutual recognition agreements must carry out the verification process of compliance with requirements.

## 2. REFERENCES

For its elaboration this procedure has taken into account the initial Procedure for sheet producers ECOSENSE-PS-RPM-LAM, as well as the normative and procedural references that are set out below:

- EN 15343:2007. Recycled Plastics. Traceability and conformity assessment of plastics recycling and recycled content
- EN 15347:2007. Plastics. Recycled Plastics. Characterization of plastic waste.
- EN 15348:2014. Plastics. Recycled Plastics. Characterization of recycled polyethylene terephthalate (PET)
- ISO 14021:2016. Environmental labels and declarations. Self-declared environmental claims (Type II environmental labeling)
- ISO 9001 Auditing Practices Group. Guidance on: Approach to Demonstration of Traceability\* of Measurement Result. International Organization for Standardization. December 2009.
- Joint BIPM, OIML, ILAC and ISO declaration on metrological traceability. Nov. 2018.
- ISO 2859-10:2006: Introduction to the ISO 2859 Standards series on sampling for inspection by attributes.
- ISO 2859-4:2002: Sampling procedures for inspection by attributes. Part 4: procedures for the evaluation of the declared quality levels.

### 3. AUDIT PROCESS AND OBTAINING CERTIFICATE

Before starting the certification process, the company must notify the Foundation of its intention to obtain the certification or certifications (as the case may be).

For a company to be certified, all the production processes of a sheet manufacturer must be developed in its facilities: acquisition of raw material, extrusion, winding of the sheet, thermoforming (where appropriate), storage and shipping.

#### 3.1. RETRAY Process

A complete audit must be carried out for each of the production centers of a company in which all of the aforementioned production processes are carried out. The policy of 1 production center = 1 audit = 1 certificate shall be followed.

However, it is possible that a company that has several production centers does not have to undergo an audit of each and every one of them. In this sense, a **multi-site unified audit** is possible as long as the organization's production centers:

- (i) carry out homogeneous production processes for the manufacture of sheet or sheet + thermoforming and
- (ii) have a single centralized raw material purchasing process.

If the two conditions set out are not met, it shall be necessary for the company to undergo an audit process for each installation by the Certification Body, with the consequent need to obtain the RETRAY certificate for each production center in a differentiated way.

The **requirements to be verified in a multi-site unified audit** shall be the following:

**Jointly:**

- 7.A.1 Requirement 1, sections a), b), c), d), e) and g)
- 7.A.1 Requirement 2 and 3
- 7.A.2 (all destinations)
- 7.B. Requirements related to the calculation of the recycled content of products manufactured during an analysis period, if the case.

The **requirements to be verified in each production center** shall be:

- 7.A.1 Requirement 1, section f), regarding the 3 traceability verifications. It may be carried out randomly among all the company's centers that are being audited.
- 7.A.2. Destination 1, Recycling: waste storage point ("Ecosense Point / Retray Point").
- 7.C. Requirements related to the calculation of the percentage of recycled material in products.
- 7.D, on the taking of samples of those products that wish to be certified under RETRAY Product, if the case.



In those cases, in which a company develops one or more of the production processes in several facilities (for example, the sheet is manufactured in one center and the final completion of the product is carried out in another), the audit shall be unified for the set of them. In this case, the company will obtain, if the audit results satisfactory, a certificate covering all these facilities.

Once the Certification Body has carried out the audit and the result is favorable, it shall issue an **audit report** of and provide a copy to both the company and the Foundation. If the company decides to audit 78 and/or 7C requirements, within the audit report it shall be detailed, both for the process and for the product formats, where applicable:

- Percentage of recycled content in the calculation period.
- Percentage of recycled content in the calculation period from the tray-to-tray circuit.
- Percentage of recycled content of post-consumer origin (for product formats optionally until 31<sup>st</sup> December 2024 and mandatory as of 1<sup>st</sup> January 2025).
- Quantity of non-recycled plastic (expressed in kilos)
- Quantity of non-recycled plastic (expressed in kilos) for tax<sup>1</sup> purposes, if any.

The Foundation, once the report has been verified and carried out the additional checks it deems appropriate, shall provide **the certificate signed by the Certification Body** and the Foundation (in which the percentage of recycled content in the calculation period will be reflected, if the case) **and authorize the company to use the "RETRAY Process" label by signing the corresponding agreement** listing the economic conditions and the requirements for rights of use.

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<sup>1</sup> Special tax on non-reusable plastic packaging of Spanish Law 7/2022, of April 8, on waste and contaminated soil for a circular economy

### 3.2. RETRAY Product

The company must previously communicate to the Certification Body the **list of products** that it wants to certify, attaching for each of them:

1. The technical **data sheet**
2. a **self-declaration of the composition and types of additives it incorporates** (only necessary in case of auditing the requirement 7D).

This prior information is essential for proper planning and sizing of the audit work and, therefore, the company must provide it in advance. Once the information is analyzed, the Certification Body and the company shall agree on the economic conditions for the audit.

Once the Certification Body has carried out the audit and the result is favorable, it shall issue an **interim audit report**, upon receipt of the favorable results of **the recyclability verification tests** carried out by a Test Laboratory for RETRAY Product certification, if the case, to then issue the **final audit report**. The Certification Body shall provide a copy of the interim report, as well as the final one, both to the company and to the Foundation.

The Foundation, once the definitive report has been verified and carried out the additional checks it deems appropriate, shall provide **the certificate signed by the Certification Body and the Foundation and authorize the company to use the "RETRAY Product" label by signing the corresponding agreement between the Foundation and the company**, listing the economic conditions and the requirements for rights of use.

## 4. AUDIT PLANNING

The Certification Body shall schedule the audit and document it in a plan to be sent to the company in advance of the date agreed between both parties to carry out the audit.

Previously, in the case of the RETRAY Product certification, the Certification Body shall carry out a **preliminary analysis** to determine the scope and duration of the audit. For this, the company must provide a **list of all the products (sheets and/or thermoformed bodies) that it wishes to certify, following the indications established in section 3.2.**

## 5. PERFORMANCE OF THE AUDIT, OBTAINING RESULTS AND ACTION PLAN

The Certification Body shall carry out the audit based on the requirements established in this procedure. To do so, it shall carry out all the investigations and examinations it deems necessary. These will take place both in person <sup>2</sup> at the facilities of the company (requirements related to traceability, percentage of recycled content, if applicable, and control of production processes) and in the office (requirements related to recyclability).

To carry out the audit, those representatives that the company considers necessary for a correct dialogue and attention to the information demands of the auditor must be present.

Once the audit has been carried out, the Certification Body shall provide a report of the latter, with the results obtained. Non-compliances (non-conformities) and opportunities for improvement may appear in the report. The company must correct the non-conformities to obtain the corresponding certificate.

In case the Certification Body detects breaches of the requirements established in this procedure, the following will be acted upon:

- In case of **non-compliance** of the **requirements** related to section 7.A, 7.B, if the case, and 7.C, relating to both **raw material traceability control system**, and the **production system traceability control system** established to verify the **content** percentage of recycled material incorporated (if applicable): the Certification Body must verify the correction of the non-conformities, re-performing the checks deemed necessary, including, if necessary, new calculations of the percentage of recycled content.
- In the event of **non-compliance** with the **requirements** related to **the recyclability criteria** established in section 7.D, if the case: the recyclability verification tests must be repeated (the pertinent changes in the design or composition of the product must be carried out previously).

Opportunities for improvement shall constitute observations that the company may take into account to minimize the possibility of non-compliances arising in the future.

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<sup>2</sup> The face-to-face audit at the company's facilities may be carried out remotely under extraordinary circumstances that prevent the auditor from travel and as long as the viability of the remote audit is determined by the Certification Entity.

## 6. AUDIT FREQUENCY

As it is stated in **the section 7 of the General Regulations of the RETRAY certification scheme**, the validity of the RETRAY certificates, both Process and Product, is three (3) years and the maintenance of the certification throughout this period is subject to the company having passed an annual **follow-up audit** whose frequency and scope, regarding operations and compliance with the requirements established in the procedures, it will be the same as that of the initial audit to obtain the certificate and the audit for its renewal with the following exceptions:

- a) If before the end of the year for carrying out the follow-up audit there is a decrease of more than 5% in the percentage content of recycled material in a product format certified with requirement 7.C, the company must bring the date forward for the follow-up audit to continue using the RETRAY Product brand. In the event that what occurs is an increase in the percentage content of recycled material, the company will decide if it wishes to advance the audit or wait until the end of the annual validity of the RETRAY Product certificate to carry it out.
- b) If before the end of the year for carrying out the follow-up audit, a variation occurs in the composition of the certified product format with requirement 7.D, understood as any variation in the formulation that affects compliance with the recyclability guidelines, the company must bring the follow-up audit date forward if it wants to continue using the RETRAY Product brand.
- c) In the case of follow-up audits and renewal of requirement 7.D., it will not be necessary to repeat the laboratory tests as long as these two conditions are met:
  1. The Foundation determines that there have been no substantial changes to the recyclability guidelines used in the initial certification of the product format.
  2. The Certification Body verifies during the audit of this requirement that there has been no variation in the composition of the certified product format, understood as any variation in the formulation that affects compliance with the recyclability guidelines.

The annual follow-up audit by the Certification Body must be carried out within a maximum period of 3 months after one year since the last audit date.

The **renewal** of the certifications will be carried out on a triennial basis as long as the companies have made the corresponding request to the Certification Body when the end of the validity of the certificates approaches to undergo the corresponding **renewal audit** which must be carried out the last day of validity of the certificate at the latest.

## 7. REQUIREMENTS

The requirements that must be met are made up of four types of requirements (demands) that are summarized below and developed in detail later:

**7.A)** Requirements related to **traceability of recycled raw materials and waste management**. They shall be applicable to obtain the **RETRAY Process** certification.

**7.B)** Requirements related to the traceability of the production system to verify **the percentage content of recycled plastic incorporated in the products manufactured throughout a certain period of analysis**. **These requirements are optional** for obtaining the RETRAY Process certificate and the Certification Body shall verify then only in case the company so indicates.

**7.C)** Requirements related to the traceability of the production system to verify **the percent of recycled material content incorporated in the products** (each Sheet Format or thermoformed sheet format to be certified). They shall be applicable to obtain the **RETRAY Product certification, in addition to the RETRAY Process requirement**.

**7.D)** Requirements related to **compliance with the recyclability guidelines** of the products (each Sheet Format or thermoformed sheet format to be certified). **These requirements are optional** for obtaining the RETRAY Product certificate and the Certification Body shall verify then only in case the company so indicates. This requirement can be audited individually, without the need to have obtained the RETRAY Process (requirement 7A) or RETRAY Product (requirement 7C) certification.

Therefore, a company that wishes to obtain the RETRAY Product certificate must obtain, simultaneously or previously, the RETRAY Process certificate for the production center where the Sheet Format to certify is manufactured.

The company must keep the records and documents proving compliance with these requirements for at least 3 years.

Type of requirement that must be met	RETRAY certification	
	Process	Product
A) Traceability of recycled raw materials and waste management	✓	✓
B) Percentage of recycled plastic incorporated into products in a given period	Optional	Optional
C) Percentage of recycled material incorporated in products		✓
D) Recyclability Guidelines		Optional*

**Summary table of the types of requirements to be met depending on the type of certification**

\* If the company only wants to evaluate the recyclability of one or more Product Formats, it is not necessary to have previously obtained the RETRAY Process Certification (requirement 7A) or RETRAY Product (requirement 7C).

7.A) Requirements related to the traceability of recycled raw materials and waste management

7.A.1 Traceability of recycled raw materials

The company must comply with the following requirements:

**Requirement 1**

The company must have a traceability system that guarantees the acquisition of a minimum quantity of colorless transparent recycled material from the tray-to-tray circuit, as well as the existence of records in order to identify the batch and the supplier of the raw materials with which the sheets are made.

For practical purposes, the traceability system shall basically consist of a control mechanism (digital or physical) "upstream" or "downstream" through which it must be demonstrated that the sheet manufacturing company:

- a) Acquires at least **20 tons per quarter** of colorless transparent recycled PET from at least one recycler approved for the certification scheme by the Foundation who acts as a supplier and who identifies the batches supplied by it (either through its delivery notes or invoices).

To verify compliance with this requirement, it must be confirmed that the **total quantity acquired in the last year** is at least **80 tons**. This requirement must be met from the date of entry into force of this procedure for those companies that have obtained their certification prior to it. If for reasons not attributable to the company the total quantity acquired in a year does not reach 80 tons, a statement from the approved recycler/s in this regard shall be required.

In the case of **new certifications**, this requirement must begin to be fulfilled during the first quarter after the entry into force of the certification, being necessary that the audit verifies that, at least, **20 tons** of colorless transparent recycled PET from at least one recycler approved by the Foundation have been acquired during the last quarter prior to obtaining certification.

To verify compliance with the incorporation of colorless transparent recycled PET in the minimum required quantity, as established in this section, the following checks shall be carried out:

- During the audit to obtain the certification, the Certification Body shall carry out a visual verification of the production center to verify the incorporation of recycled material in the manufacturing process of the PET sheet.
  - Through a quarterly control by the Management Committee of the scheme, who shall collate the information with the approved recyclers from whom the company has acquired the colorless transparent recycled PET.
- b) The **raw material used in the manufacture of the sheet must maintain the identification of the batches** through its production parts (or the records through which it documents the productive activities carried out).
- c) It uses a **batching system for its products** through the production reports themselves (or the records through which it documents the productive activities carried out).
- d) **It maintains the identification of the batches of manufactured products** supplied to its customers through their product delivery notes, invoices or through their stock control records.

Batching shall not be necessary as long as, through other alternative means of identification (associated manufacturing part or product code, among others), the manufactured product is traced to the raw materials (recycled transparent and colorless polymers from the tray-to-tray circuit) with which it has been produced.

- e) The company must provide, for each of the products manufactured by it in which recycled material has been used, a **technical data sheet** in which at least the following information must be identified:
- Unambiguous product identification
  - Determination of product dimensions (width and thickness, especially).

- Determination of the **weight, expressed in kilos**, of the product **per linear meter** (in the case of sheets) and of the product **per unit** (in the case of thermoformed sheets).
- Specification of the **guaranteed percentage of minimum recycled content** incorporated in the product. Optionally, the specification of the percentage of recycled content from the tray-to-tray circuit may be specified in the data sheets.

To determine the percentage and weight of recycled content in each product, the sheet manufacturing company must use the production records in which the quantities of each of the raw materials used to manufacture the final product are identified.

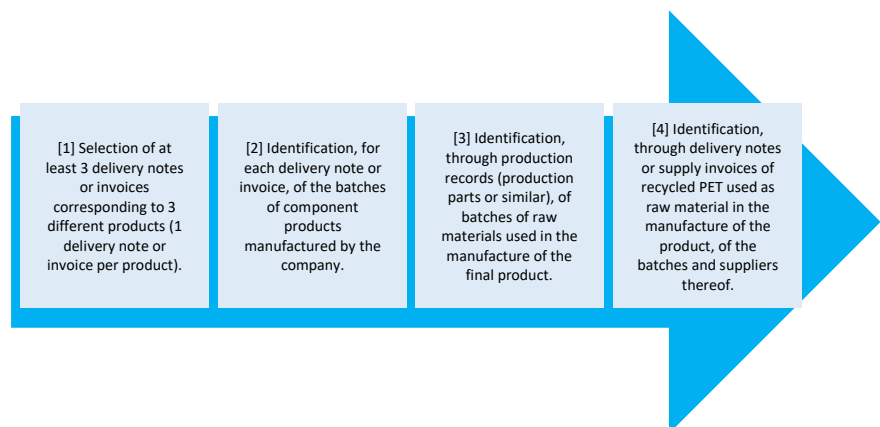
The Certification Body must carry out a random check on some of the manufactured products in which colorless transparent recycled PET from the tray-to-tray circuit has been used as raw material to verify that the percentage of recycled content of the product corresponds to the percentage declared in the technical data sheet (or certificate of recycled material content). For this, it shall carry out the pertinent checks of data contained in the production records of the organization (product recipes, production parts or control software, among others).

- f) It has an **adequate traceability control** that must be accredited. For that, the Certification Body shall carry out at least 3 satisfactory verifications based on the delivery note or final product dispatch invoice, the batch/es of raw material involved (supplied by an approved recycling company) in the manufacture of final products. The traceability exercises can be carried out both upstream (starting from the delivery notes or invoices for the shipment of final products) and downstream (starting from the delivery note for receipt of raw materials). In the event that the company does not have a minimum of 3 delivery notes or invoices corresponding to different products, the Certification Body shall carry out the maximum number of possible checks that allows the productive singularity of the company.
- g) It has supporting records that demonstrate that the manufacture with **recycled material of products intended to come into contact with food** is being carried out in accordance with Commission Regulation (EU) 2022/1616 of 15 September 2022 on recycled plastic materials and articles intended to come into contact with foods or regulations that replace, modify or add it, when applicable.



For this, as stated in the aforementioned regulation, in the event that the recycled PET is incorporated into the layer of the sheet in direct contact with the food and not behind a functional plastic barrier, the company must provide the **EFSA registration document**<sup>3</sup> with the favorable opinion for the authorization of the recycling process.

Graphically, as a summary, the system to carry out the verification of this first requirement shall be the one shown below:



*Explanatory note on companies with a double profile (Sheet producer + Thermoformer)*

*In sheet producers that also develop manufacturing processes for thermoformed products, the criteria established in the Procedure for the RETRAY Certification of Thermoformers shall apply, except for the requirements related to the traceability of the production system, for which what is established in this section 7.A.1 of this procedure shall apply.*

*In any case, the auditing process of the requirements related to the traceability of the production system may be based on traceability exercises carried out, both on the sheet manufacturing process and on the manufacturing process of thermoformed products.*

**Requirement 2**

**The company must require recycled PET suppliers to guarantee the existence of controls of incoming materials to their facilities (plastic waste) in accordance with the provisions of the EN 15347 standard:**

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<sup>3</sup>European Food Safety Authority.

The supplier of recycled PET must provide **for each batch of material supplied** the information contained in the following table. This is information related to the origins of the waste that has been used to manufacture recycled PET:

Origins	Type of material/origin
	Type of product
	Type of waste, for example, pre-consumer, post-consumer, demolition waste
	Where it comes from (supplier identification)
	Date
	Waste history (e.g., contact with known hazardous substances)
Transportation	Collection (transport / type of transport)
	Classification
	Batch size, identification and marking
	Pre-treatment (e.g., washing, grinding)
	Storage (for example, outside)

In the case that the supplier of recycled PET has a certificate of traceability of the recycling process according to standard EN 15343 issued by a Certification Body accredited by a National Accreditation Body signatory of the multilateral mutual recognition agreements, this certificate serves as evidence of compliance with this requirement and the supplier has not to provide the information for each lot of material supplied. The Sheet The company must keep a copy of the certificate provided by the supplier, that must be in force at the time of the audit.

### **Requirement 3**

**The company must require suppliers of recycled PET to guarantee the existence of production controls in the manufacturing process of this product.**

These controls must include:

- i. Recording the variables of the recycling process
- ii. Product batch identification
- iii. Quality control tests of the products made in the process

The following serves as evidence of compliance with these requirements **by the recycled PET supplier**, respectively:

- i. **Recording the variables of the recycling process.** The certification of its quality management system under the **ISO 9001** standard by a certification body accredited by a National Accreditation Body that is a signatory to multilateral mutual recognition agreements, or the certification of traceability of the recycling

process according to standard **EN 15343** issued by a Certification Body accredited by a National Accreditation Body signatory of the multilateral mutual recognition agreements The Sheet producer must keep a copy of the same, which must be valid at the time of the audit.

If the company does not have a certificate according to standard EN 15343 or is not certified under the ISO 9001 standard, the supplier must provide the production parameter control manual or document of the operating procedure that is followed to carry out its internal production control.

- ii. **Product batch identification.** The Sheet Manufacturer must keep the **delivery notes from the recycled PET supplier** and for them **to refer to the batch number of each consignment** issued.
- iii. **Quality control of the final products.** Recycled PET suppliers must provide the Sheet Manufacturer with the required characteristics of each recycled batch, in accordance with the provisions of Table 1 of the EN 15348 standard:

Characteristics	Unit	Testing method	Comments
<b>Required</b>			
Shape		Visual	Flakes, pellets
Determination of maximum particle size	mm		Given by the size of the grinder sieve
Tina particle content	%	Annex A	Value in percentage of particles that pass the 1 mm sieve
Colour		Visual inspection	Monochrome, transparent, blend
Water content	%	Annex B or EN ISO 15512	
PVC content	mg/kg	Annex C	
Polyolefin content	mg/kg	Annex C	
<b>Optional</b>			
Determination of the melt flow rate (MFR)		EN ISO 1133-2	
Intrinsic viscosity (I.V.)	dl/g	ISO 1628-5	
Alkalinity	pH	Annex D	
Filterability	MPa (h • cm <sup>2</sup> )	Annex E	
Other residual content	mg/kg		Analysis according to the appropriate method, for example. FTIR. XRF. DSC...
Colour	Values L, a, b	Colorimeter according to EN ISO 11664-4	Injection moulded discs with flakes, pellets
Other tests may be carried out by agreement between the buyer and the supplier and record the results.			

The company must keep the **test certificates for each batch of recycled PET received**. Records must be available for a minimum period of **12 months prior** to the audit date.

#### **7.A.2. Waste management**

The company must identify the destination or destinations, which may be complementary and not exclusive, for the management of its production scraps:

**Destination 1. Recycling** by a recycling company approved by the Foundation for the certification scheme,

**Destination 2. Reuse** by the company itself.

**Destination 3. Withdrawn by an authorized waste manager** when, exceptionally, neither of the two previous destinations are viable.

The requirements that the company must meet in each case are detailed below:

#### **Destination 1. RECYCLING BY AN APPROVED RECYCLING COMPANY**

- To avoid mixing with other types of waste, the company must have an area, space or container called "**RETRAY Point**" for the specific storage of scraps that must meet the following conditions:
  - Preferably, it has a press or compactor that is used to shape the residual polymer "bundles" that the company send to the approved recycler.
  - If it does not have a press or compactor, it must have at least a container that allows its storage in bulk or any other system that allows its palletization.
  - The company must identify the area or container where these scraps are stored, as well as the "packages" or bags that conform to them, with the following emblem:



Those companies that already have an “**ECOSENSE Point**” (according to previous versions of this procedure) may maintain their name with the following emblem until they proceed to update it:



This " **RETRAY Point or ECOSENSE Point**" is not compulsory if the company has a waste manager approved by the foundation.

- The company must keep a **copy of the authorization of a recycling company** approved by the Foundation for the certification scheme, **as a manager of plastic waste for, at least, the LER codes 150102, 150106, 191204 and 200139.**
- Additionally, the company must keep the following **supporting documents showing the removal of residual scraps** based on the two possible ways for their transport to the approved recycler:
  - Direct transfer to the facilities of the approved recycler.
  - Transfer to an intermediate manager.

If the transporter transfers them directly to the facilities of the approved recycler:

- i. Authorization of the transporter to carry out the transfers of residual polymers from the sheet manufacturer's facilities to those of the approved recycler (only in those cases in which the company itself hires the transporter).
- ii. Delivery notes or consignment notes certifying the completion of at least one withdrawal by the transporter.
- iii. Proof of entry of the waste into the facilities of an approved recycling company (certificate issued by it, delivery note, invoice or consignment note stamped by the recipient).

If the transporter transfers them to a waste manager who later sends them to the facilities of an approved recycler:

- i. Authorization of the transporter to carry out the transfers of waste polymers from the sheet company's facilities to those of the approved recycler (only in those cases in which the company itself hires the transporter).

- ii. Delivery notes or consignment notes certifying the completion of at least one withdrawal by the transporter.
- iii. The authorization of the intermediate waste manager.
  - iv. Proof of entry of the waste into the facilities of an approved recycling company (certificate issued by it, delivery note, invoice or consignment note stamped by the recipient). The delivery notes from the intermediate manager to the approved recycler must expressly include the address of the installation of origin of the waste from the sheet manufacturing company.
  - v. As mentioned in the first point, if the waste manager is approved by the foundation, the company is not obliged to have a "RETRAY Point or ECOSENSE Point".

#### Destination 2. REUSE BY THE COMPANY ITSELF

- The requirements of this section are mandatory for those companies that reuse, in whole or in part, **the residual scraps of plastic polymers generated in a year, in such a way that they become raw material for sheets for the manufacture of thermoformed PET bodies.**
- For this, the company, through its own production reports (or the records through which it documents the productive activities carried out), must demonstrate, in a traceable manner, the incorporation of the residual scraps of plastic polymers to their products. This practice must be demonstrated as sustained over time, for which **demonstrative records** of it must be kept for at least 6 months prior to the audit.
- All those **residual scraps of plastic polymers that have not been reintroduced into the production process of the company as raw material**, must be managed through some of these two alternatives:
  - Destination 1, Recycling by an approved recycler (all the requirements described in the aforementioned section being applicable), or
  - The **sale** of residual scraps to other companies for use as a raw material (the residual scraps shipments must be justified by invoices or delivery notes), with a **maximum percentage of 20%** of the residual scraps of plastic polymers generated in one year.
- In any case, the company must maintain a **statistical control that allows it to compute the quantities reused internally as raw material, those sent to customers and those derived to an approved recycler.**

- The companies that take advantage of the reuse of residual scraps **generate disposable plastic waste in specific quantities of these two types:**
  - Amorphous remains derived from the set-up of the extruders
  - Residual scraps contaminated with chemicals or substances that make their recovery by an approved recycler unfeasible.

In both cases, an authorized manager must carry out the management of these types of waste. The company must keep its authorization.

### Destination 3. WITHDRAWAL BY AN AUTHORIZED MANAGER

- The removal of residual scraps by an authorized waste manager, **which destination is NOT to be recycled by an approved recycler**, shall be a **destination exceptionally** accepted when the quality of the waste makes recycling unfeasible.
- The residual scraps shall be considered as non-recyclable, and therefore its recycling is not feasible, when they **do not meet** the conditions applicable to the "Thermoformed bases" of the **GUIDELINES TO GUARANTEE THE RECYCLABILITY OF THERMOFORMED PET PACKAGING** in force that are published in the section "**PET THERMOFORM**" on the [Foundation's website](#).
- In this sense, **non-recyclable residual scraps must not exceed 50% of the total annual PET waste, both multilayer and monolayer, generated by the production center** subject to audit for certification. This requirement shall be subject to review in the renewal of the certification, being the cause of loss of the same in case of non-compliance.
- To verify this, the company must provide:

#### For recyclable scrap:

- 1) A **statement** detailing the quantities of all multilayer and/or monolayer polymer waste:
  - Accepted by an approved recycler for recycling, in accordance with the provisions of this procedure.
  - Reused by the company itself, in accordance with the provisions of this procedure,
  - Removed by an authorized waste manager, whose final destination is not the facilities of a recycler approved by the Foundation.

The **amounts** must be **referred to the last closed calendar year**. The information on recyclable scraps must be contrasted with the data provided by approved recyclers.

- 2) The **delivery notes or consignment** notes certifying each item withdrawn.

For **non-recyclable scraps** delivered to an authorized manager:

- Copy of authorization from the transporter to carry out the transfers of residual polymers (only in those cases in which the company itself hires the transporter)
- The authorization of the authorized waste manager
- Proof of entry of the waste into the authorized manager's facilities.

7.B) Requirements concerning the calculation of the recycled content of the products manufactured during a period of analysis (optional)

The Certification Body shall determine, through the examination of the different types of records set out below, the amount of recycled plastic raw materials (PET) used so that they become part of the final products generated by the company throughout a determined analysis period.

On the other hand, the Certification Body must calculate the sum of the total weight of the plastic raw materials used by the company (recycled or virgin) in the same analysis period.

In the case of companies with a double profile, sheet producer + thermoformer, all the calculations in this section shall exclusively refer to the lamination activity.

The **analysis period** covering these calculations shall be the one corresponding to the **last closed calendar year**.

Once the above data has been obtained, the Certification Body shall calculate the percentage of recycled material contained in the manufactured products during that period. The mathematical formula to be used shall be the following:

$$X(\%) = \frac{A}{P} \times 100$$



Where:

**X (%)** = percentage of recycled content during the analysis period. The nature of the recycled plastic raw materials may come from both the tray-to-tray circuit and other types of recycled PET.

**A** = sum of the amount of recycled raw material used to manufacture the final products (sheets and thermoforms) during the analysis period.

**P** = weight of the total raw material used to manufacture the products (sheets and thermoforms) during the analysis period.

The calculation of the **amount of non-recycled plastic** contained in the products will be the result of applying the formula  $NR = P - (P \times [X/100])$ . The Certification Body shall provide the value of "NR" together with the value of "X" as the final result of the audit.

### 1) Calculation of factor A

The following formula shall be applied:

$$A = A_C + A_{SI} - A_{SF} + A_i$$

Where:

**A** = sum of the amount of recycled raw material used in the manufactured products during the analysis period

**A<sub>C</sub>** = Amount of recycled raw material acquired during the analysis period.

**A<sub>SI</sub>** = Amount of recycled raw material in stock at the beginning of the analysis period

**A<sub>SF</sub>** = Amount of recycled raw material in stock at the end of the analysis period

**A<sub>i</sub>** = amount of recycled raw material included in the imported products (sheets).

To quantify the factor **A<sub>C</sub>**, the Certification Body it shall consider the information regarding quantities indicated in certificates issued by suppliers for this purpose and that include a quantification of the amount of recycled raw material in sheets/thermoformed products supplied during the analysis period. The responsible person in the supplier company must sign and stamp these certificates and must provide a list of delivery notes supplied that include, at least, the following information for each of the deliveries made:

- Delivery note number.
- delivery note issue date

- type of material supplied (recycled or not recycled)
- quantity of material supplied (**expressed in kilograms or tons**).

In addition to being in non-editable format (PDF), the responsible person in the supplier company must provide the certificates in an editable format (Excel). The latter will not have to be signed or sealed since has the ultimate purpose of serving as a tool for the calculations by the Certification Body.

In the case of raw materials acquired from suppliers, the Certification Body shall request the contrasting documents, carry out the data cross-checks and the checks it deems appropriate in order to ensure the veracity of the information provided.

To quantify the factors  $A_{SI}$  and  $A_{SF}$ , the information will be extracted from the company's production control software. If the company does not have this kind of software, the company must carry out two inventories in the analysis period: one dated January 1 and other dated December 31.

To quantify  $A_i$ , the Certification Body must take into account the information included in the technical sheets of imported products, which must provide information about the percentage of recycled content incorporated in the products, as well as their total weight. Any imported product without a technical data sheet will be considered to contain 0% recycled content. The company must have a control list of each of the imported products with the record of its weight and recycled content that it incorporates.

The Certification Body shall request the **certificate of recycled content of imported products** (if applicable) issued by an accredited certification body or, failing this, an entity participating in a recognized certification scheme within the sector. If the recycled content is not certified by an accredited certification body or, failing this, an entity participating in a recognized certification scheme within the sector, the Certification Body shall consider that the raw material contains 0% recycled content, that is, the material is virgin for calculation purposes.

In addition to determining the value "A" in general terms as the amount of recycled raw material used in the final products, the Certification Body shall also determine the value "A" specifically referring to the amount of material recycled from the tray-to-tray circuit that has become part of the final products. For this, the same calculation methodology specified above shall be used, with the exception that all the factors will refer specifically to raw material whose origin is the tray-to-tray circuit and therefore has been supplied by a Recycler Approved by the Foundation.

## 2) Calculation of the P factor

The following formula shall be applied:

$$P = A_T + I + SA_{TI} - SA_{TF}$$

Where:

**P** = weight of the total raw materials used for the manufacturing of the products (sheet and thermoforms) during the analysis period.

**A<sub>T</sub>** = Quantity of the total raw material (recycled and not recycled) acquired.

**I** = Total weight of products imported (sheets) by the company during the analysis period.

**SA<sub>TI</sub>** = Total weight of the total raw materials (recycled and virgin) in stock at the beginning of the analysis period.

**SA<sub>TF</sub>** = Total weight of the total raw materials (recycled and virgin) in stock at the end of the analysis period.

To quantify the **A<sub>T</sub>** factor, the Certification Body will take into account the information related to quantities indicated in certificates issued by suppliers for this purpose (both those for recycled and virgin raw materials) and that include a quantification of the quantity of raw material supplied during the analysis period. The person responsible for the supplying company must sign and seal these certificates and accompany them with a list of delivery notes supplied that incorporates, at least, the following information for each of the deliveries made:

- delivery note number
- delivery note issue date
- type of material supplied (recycled or virgin)
- quantity of material supplied (expressed in kilos or tons).

To quantify factor **I**, the Certification Body shall take into account the information regarding quantities indicated in certificates issued by suppliers for this purpose and which include a quantification of the quantities of products supplied during the analysis period. The responsible person in the supplier company must sign and stamp these certificates and provide a list of delivery notes supplied that include, at least, the following information for each of the deliveries made:

- Delivery note number.
- delivery note issue date
- type/s of product/s supplied
- quantities of each of the products supplied (expressed in kilos or tons)
- % recycled content of each of the types of products supplied

In addition to being in non-editable format (PDF), the company must provide the certificates in an editable format (Excel). The latter will not have to be signed or sealed

since it has the ultimate purpose of serving as a tool for the calculations by the Certification Body.

To quantify the factors  $SA_{TI}$  y  $SA_{TF}$ , the information shall be extracted from the company's production control software. If the company does not have this kind of software, the company must carry out two inventories in the analysis period: one dated January 1 and other dated December 31.

In the case of raw materials acquired from suppliers or those products shipped by the company, the Certification Body shall request the contrasting documents, carry out the data cross-checks and the checks it deems appropriate in order to ensure the veracity of the information provided.

### 7.C) Requirements related to the calculation of the products' percentage of recycled material

The requirements established in this section are intended to determine the percentage of recycled content (both exclusively from the tray-to-tray circuit and in global terms, as well as post-consumer and post-industrial origins) existing in a sheet.

Currently there is no reliable technology for an analytical determination of the recycled content in a product. Consequently, the company must provide information on the nature of the raw materials used in the manufacture of a product (recycled raw materials or virgin raw materials), as well as their identification and traceability throughout the entire production process, so that the Certification Body calculates the percentage of recycled content of a sheet.

For practical purposes, the recycled content traceability system shall basically consist of a control mechanism (digital or physical) through that demonstrates:

- a) The amount of **material in the tray-to-tray circuit from PET recycling companies** approved by the Foundation that act as suppliers and identify the batches of product supplied (either through their delivery notes or invoices).
- b) The amount of **material from PET recycling companies** (approved or not by the Foundation) whose origin can be demonstrated to be post-consumer or post-industrial.
- c) That it has a **traceability system** that guarantees the **existence of records** through which the batch (and therefore its post-consumer or post-industrial origin and/or tray-to-tray circuit), quantity and supplier of the raw materials with which each type of sheet to be certified are manufactured is identified.

- d) The company must demonstrate the **proportion of recycled material incorporated** into the sheet formats to certify through the production reports (or the records through which it documents the productive activities carried out).
- e) **The Certification Body shall evaluate the proportion of recycled content of each of the sheet formats to certify.** For this purpose, the company shall choose between these two options:

Option 1: request that the Certification Entity itself calculate the percentage of recycled content, using the methodology set out below.

Option 2: carry out the calculation using either its own methodology that must be verified by the Certification Entity, or the calculation methodology set out below. In both cases, the Certification Entity will verify the results obtained by the company.

Calculation methodology:

- 1) **Determination of the weight of the sheet** to be certified. For this, the Certification Body shall use the information contained in the production records of the company. It is accepted that the weight of the sheet ("P") is equal to the sum of the weights of the different raw materials constituting it.
- 2) **Sum of the weights of recycled raw materials from the tray-to-tray circuit** (that is, with the thermoformed packaging origin) from recycled PET suppliers approved by the Foundation ("A")
- 3) Sum of the **weights of raw materials of a recycled nature** from suppliers of recycled PET with a DIFFERENT origin than thermoformed packaging ("B")
- 4) Application of the following **formulas** to calculate the % recycled content of the sheet:
  - 4.1)

$$X(\%) = \frac{A}{P} \times 100$$

Where:

**X (%) = % of recycled content of the sheet originating from thermoformed packaging**

**A** = sum of the weight of recycled raw materials from approved recyclers ( $A = A1 + A2 + A3 + An$ ) integrated into the sheet.

**P** = weight of the sum of the constituent elements of the sheet ( $P = P1 + P2 + P3 + Pn$ )

*Note: if the information that appears in the production records relating to the different raw materials that make up the sheet is not expressed in units of weight, but rather as a percentage, the formula to be applied to calculate the % of recycled content of the sheet is the following:*

$$X(\%) = A$$

Where:

**X (%) = % recycled content of the sheet**

**A** = sum of the different percentages of recycled raw materials from recycled PET suppliers originating in thermoformed packaging with a current ECOSENSE certificate or RETRAY Process ( $A = A1 + A2 + A3 + An$ ).

4.2)

$$Y(\%) = \frac{A + B}{P} \times 100$$

Where:

**Y (%) = percentage of recycled content of the sheet originating from thermoformed packaging and NOT thermoformed packaging from post-consumer origin.**

**A** = sum of the weight of recycled raw materials from approved recyclers  
( $A = A1 + A2 + A3 + An$ ) integrated into the sheet

**B** = sum of the weight of raw materials of a recycled nature from recycled PET suppliers with origin NOT from thermoformed packaging  
( $B = B1 + B2 + B3 + Bn$ ) integrated in the sheet.

NOTE: both A and B will only be considered raw materials from post-consumer in that proportion that suppliers can accredit based on what is indicated in their corresponding certificates that they have in force under EN 15343 or RETRAY Product. These certificates shall be issued by a Certification Body accredited by a National Accreditation Body that is a signatory of the multilateral mutual recognition agreements. If the aforementioned certificates do not explicitly mention the % recycled content of post-consumer origin, all the material (in the proportion indicated by the certificate) shall be considered post-industrial.

**P** = weight of the sum of the constituent elements of the sheet ( $P = P1 + P2 + P3 + Pn$ ).

*Note: if the information that appears in the production records relating to the different raw materials that make up the sheet is not expressed in units of weight, but rather as a percentage, the formulas to be applied to calculate the percentage of recycled content of the sheet is:*

$$Y (\%) = A + B$$

Where:

$Y (\%) = \% \text{ recycled content of the sheet}$

$A = \text{sum of the different percentages of recycled raw materials from recycled PET suppliers originating in thermoformed packaging with a current ECOSENSE certificate } (A = A1 + A2 + A3 + An)$

$B = \text{sum of the different percentages of raw materials of a recycled nature from recycled PET suppliers with origin NOT thermoformed packaging } (B = B1 + B2 + B3 + Bn)$

4.3)

$$Y(\%) = \frac{A + B}{P} \times 100$$

Where:

**Y (%) = percentage of recycled content of the sheet originating from thermoformed packaging and NOT thermoformed packaging from post-consumer + post-industrial origin.**

**A = sum of the weight of recycled raw materials from approved recyclers ( $A = A1 + A2 + A3 + An$ ) integrated into the sheet**

**B = sum of the weight of raw materials of a recycled nature from recycled PET suppliers with origin NOT from thermoformed packaging ( $B = B1 + B2 + B3 + Bn$ ) integrated in the sheet.**

NOTE: both A and B will only be considered raw materials from post-consumer + post-industrial in that proportion that suppliers can accredit based on what is indicated in their corresponding certificates that they have in force under EN 15343 or RETRAY Product. These certificates shall be issued by a Certification Body accredited by a National Accreditation Body that is a signatory of the multilateral mutual recognition agreements.

**P = weight of the sum of the constituent elements of the sheet ( $P = P1 + P2 + P3 + Pn$ ).**

*Note: if the information that appears in the production records relating to the different raw materials that make up the sheet is not expressed in units of weight, but rather as a percentage, the formulas to be applied to calculate the percentage of recycled content of the sheet with post-consumer + post-industrial origin is:*

$$Y (\%) = A + B$$

Where:

*Y (%) = % recycled content of the sheet with post-consumer + post-industrial origin.*

*A = sum of the different percentages of recycled raw materials from approved recyclers ( $A = A1 + A2 + A3 + An$ )*

*B = sum of the different percentages of raw materials of a recycled nature from recycled PET suppliers with origin NOT thermoformed packaging ( $B = B1 + B2 + B3 + Bn$ )*

- f) The Certification Body shall carry out the determination of the proportion of recycled content of each of the Sheet formats / thermoformed sheet format



expressing the results in percentage, without specifying the decimal places of the calculation. Since a **minimum recycled content percentage statement** is pursued, calculations determining a percentage recycled content expressed in decimal numbers shall be rounded down to the nearest whole number. For example, a result of 68.89% recycled content in a Sheet Format is rounded to 68%.

- g) **The equipment used to determine weights** (reception scales for raw materials, weighing scales for ingredients in the production area, weighing scales for final products, etc.) shall meet the following requirements:
- The scales used must have:
    - A calibration certificate issued by a laboratory accredited by a national body that is a signatory to the EA or ILAC mutual recognition agreements, or by a national laboratory that is a signatory to the ARM-CIPM (Mutual Recognition Agreement of the International Committee for Weights and Measures) or institutes designated by them, or failing that.
    - An internal calibration complying at all times with the applicable sections of the ISO/IEC 17025 standard.
  - The calibration of the scales must be carried out with a minimum annual frequency.
- h) **The determination of the % recycled content with post-consumer and post-industrial origin will be optional until December 2024.** In all audits carried out from 1<sup>st</sup> January 2025, the Certification Body will verify or calculate the proportion of recycled content referred to each of those two origins of raw materials. When the certificates of the suppliers of recycled material do not discriminate between post-consumer and post-industrial origins, the criterion of considering all that material as post-industrial by default shall be applied.

7.D) Requirements related to recyclability guidelines (optional)

The requirements that must be met by each Sheet Format / Thermoformed Sheet Format to be certified are included in the **GUIDELINES TO GUARANTEE THE RECYCLABILITY OF PET THERMOFORMED PACKAGING** hereinafter Guidelines, which are in-force on the date of sampling carried out in the audit to obtain the RETRAY certificate. These Guidelines are available on the section "PET THERMOFORM" on the Foundation's website.

**A Test Laboratory shall carry out the verification of compliance with the Recyclability Guidelines** based on what is established in section 3.2 of this procedure.

The Certification Body shall take samples of those products (Sheet Formats / Thermoformed Sheet Formats) to be certified as a RETRAY Product, following the **methodology** established in **Annex 1** of this procedure. The Certification Body shall be responsible for sending the samples to the Test Laboratory.

In case the company has a previous **favorable Recyclability Report** of the same Sheet Format / Thermoformed Sheet Format to certify that:

- includes the test results to verify the recyclability guidelines by a Test Laboratory
- and has been issued by the Foundation less than a year from the date the audit for the RETRAY certification was performed,

The Management Committee of the certification scheme shall evaluate it and, where appropriate, validate it for compliance with this requirement.

**Declared Quality Level (DQL) and extrapolation of recyclability results**

Once the Certification Body sends the samples of the Sheet Formats / Thermoformed Sheet Formats to the Laboratory and the Laboratory obtains the results of the tests, the Laboratory shall issue an assessment about whether or not the samples comply with the Guidelines.

Regarding the aforementioned recyclability tests and their relationship with obtaining the RETRAY Product certificate, the only acceptable quality level shall be 100% compliance with the guidelines for each Sheet Format / Thermoformed Sheet Format. Therefore, this shall be the Declared Quality Level (DQL) by the company for any PET sheet. Consequently, in the event that the results of the tests do not conclude compliance with the entirety of the Guidelines, it shall be understood that the DQL has been contradicted and, therefore, the Sheet Format / Thermoformed Sheet Format shall not be considered recyclable in accordance with that established in this procedure. Any exception to the previous DQL must be included in the **Test Protocol to Verify Compliance with the Recyclability Guidelines for the RETRAY Certification** approved by the Foundation (separate document to this Procedure).

## Annex 1. Methodology for taking samples, identification, handling and custody of the products to be certified

### 1. Reference Standards

- ISO 2859-10:2006: Introduction to the ISO 2859 Standards series on sampling for inspection by attributes.
- ISO 2859-4:2002: Sampling procedures for inspection by attributes. Part 4: procedures for the evaluation of the declared quality levels.

### 2. Objective of sampling

The objective of the sampling is the random and representative taking of a certain number of portions of each of the types of sheets to be certified, in such a way that the result of the recyclability tests shall be considered extrapolated to the sheets of that type placed on the market by the company.

### 3. Sampling methodology

The sampling methodology set out below does not guarantee the absence of a certain level of uncertainty (no sampling evaluation procedure does), but it does limit it. In this sense, and based on the reference standards, **the number of samples that must be taken for each Sheet Format shall be 13.**

The selection of the samples shall be made on the basis of a simple random sampling and on products that are, at the time of the audit, either being produced or already stored in the facilities of the company. In addition, it is recommended that the sample be composed of elements belonging to the largest possible number of sheet batches.

In order to carry out a correct identification, handling and custody, the samples of each Sheet Format must be stored in the same box that must be identified, so that when it arrives at the Laboratory, the Sheet format shall be traced perfectly. To do this, the Certification Body must:

1. Put the 13 samples, which must be at least DIN A4 in size, in a cardboard box with a suitable structure and size so that the samples do not result broken or deformed during transport.
2. Enter in this same box a copy of the documents provided by the company as indicated in section 3.2. of this procedure, specifically: the product technical sheet and a self-declaration from the suppliers with the composition and additives that each sheet incorporates.
3. Close the box with packing tape and identify the shipping address of the Test Laboratory, that must be notified of the shipment of the samples previously.

## Annex 2. Determination of the number of Sheet Formats or Thermoformed Sheet Formats to be certified with RETRAY Product (examples)

In the following **CASE 1** it is necessary to certify three formats of Sheet or Thermoformed Sheet. The first format is due to the fact that Base A's composition (material reference) is different from Base B and C, even though it has the same percentage of recycled content as Base B. The second and third format is due to that, although Bases B and C have the same composition (Material reference), their percentage recycling content is different.

Certification of	Format 1 Thermoformed Sheet	Format 2 Thermoformed Sheet	Format 3 Thermoformed Sheet
<b>CASE 1</b>	Thermoformed Base A	Thermoformed Base B	Thermoformed Base C
Shape	Circular	Rectangular	Square
Diameter, length, width	15 cm	15 x 7 cm	15 x 15 cm
Material Reference	APET/PE 400	APET 400	APET 500
Thickness	400 microns	400 microns	500 microns
Weight	18 gr	18 gr	22 gr
Recycled content (%)	20	20	30

In the following **CASE 2** it is necessary to certify a single format of Sheet or Thermoformed Sheet. This is because both Bases A and C have the same "APET" composition (Material Reference), and the same percentage of recycled content.

Certification of	Format 1 Thermoformed Sheet	Format 2 Thermoformed Sheet
<b>CASE 2</b>	Base Termoformada B	Base Termoformada C
Shape	Circular	Square
Diameter, length, width	15 cm	15 x 15 cm
Material Reference	APET 400	APET 500
Thickness	400 microns	500 microns
Weight	15 gr	20 gr
Recycled content (%)	25	25



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