

# RecyClass

## RECYCLASS ACCREDITED LABORATORIES

QUALITY MANAGEMENT &  
PROCEDURES

TESTING EVALUATION PROTOCOLS

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# RecyClass

## DISCLAIMER

RecyClass is an initiative aiming at enhancing and evaluating the recyclability of plastic packaging through a technical perspective. The Plastics Evaluation Testing Protocols will promote sortability and recyclability by encouraging industry to test new plastic technologies, materials or product before market launch and giving advice and recommendations to the companies.

The Evaluation Testing Protocols are available for download in the PRE and RecyClass websites. Companies providing plastic packaging concepts are encouraged to use them to self-assess the impact of their solutions on sortability and recyclability highlighting potential issues. **However, compliance to an Evaluation Testing Protocol and Design for Recycling guidelines is not a replacement for an official assessment and may not be used as a marketing tool.**

All tests must follow the Evaluation Testing Protocols recommended by the RecyClass Technical Committees and Task Forces, and must be conducted by an independent laboratory approved by RecyClass which has no legal affiliation to the applicant.

More information is reported in the RecyClass Internal Procedures available in the [RecyClass website](#).

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## 1. INTRODUCTION

This document lays out requirements, qualifications, and conditions for accredited laboratories to conduct the Testing Evaluation Protocols developed by RecyClass Technical Committees and Task Forces.

RecyClass Testing Evaluation Protocols offer reliable assessments of the sorting behaviour, or the recyclability of a plastic packaging design based on the “RecyClass Recyclability Methodology”<sup>1</sup> and on the “Technology & Product Approval Process – Procedures and Quality Management”<sup>2</sup>. The overall goal is to maintain the protection of packaged goods and their marketing display functions without obstructing the proper functioning of both the sorting and recycling processes.

This document provides guidance to ensure that accredited laboratories perform RecyClass Evaluation Testing Protocols in a consistent, reproducible and independent manner ensuring the integrity of the RecyClass Approval processes and lab results judgement.

## 2. PROTOCOLS DEVELOPMENT & MAINTENANCE

RecyClass Testing Evaluation Protocols (i.e., RecyClass Recyclability Evaluation Protocols and Sorting Evaluation Protocol) are owned, managed, and developed by RecyClass who ensures adequate documentation for the maintenance and improvement of the protocols.

RecyClass experts regularly review all available documentation including the protocols, laboratory report templates, and quality management systems and procedures according to recent developments in the recycling industry and the results of laboratory testing. Any changes and updates are implemented by the RecyClass Technical Committees and/or Task Forces and approved by the RecyClass Steering Board which are all composed by players representing the entire plastic value chain (raw producers, converters, brand owners, recyclers...) as laid out in the document “RecyClass Internal Procedures”. New updates are communicated to all accredited laboratories via their main contact.

A non-exhaustive list of cases where changes to protocols documentation might be found below:

- Changes to relevant European sorting and recycling practices under the focus and scope of the protocols. Updates will need to be reflected into the laboratory documentation.
- Changes in the focus or/and scope of the RecyClass protocols by the RecyClass Steering Board.
- Repeated feedback from the laboratories following their experience during the testing and completion of the lab report. Frequent valuable comments will be taken into the Technical Committees and Task Forces for consideration to improve the protocols documentation.
- Stakeholders’ feedback and proposals from RecyClass members and supporters. If valuable and relevant to the protocols focus and scope, will be submitted to the Technical Committees and Task Forces for consideration.

RecyClass considers and records all proposals to the Evaluation Testing Protocols and assesses their suitability within the testing scope. Suitable feedback is included in the respective documentation during the review. Reviewed

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<sup>1</sup> *RecyClass Recyclability Methodology*

<sup>2</sup> *Technology & Product Approval – Procedures and Quality Management*

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documents are consulted with accredited laboratories and members to ensure the suitability and fitness of the added requirements or procedures. The RecyClass SB approves the final version of the documents for publication.

## 3. USE OF OFFICIAL DOCUMENTATION

RecyClass Evaluation Testing Protocols are published in English on the RecyClass website. Accredited laboratories must use the latest and official RecyClass document to conduct the protocols and to deliver the lab report to the applicant in English.

The lab report might be amended by both the applicant and RecyClass in case of necessity and to bring clarity in the results. Additional tests might be added as well if required by the RecyClass Technical Committees and/or Task Forces.

Each lab report includes specific information and pics related to a packaging's design and its innovation. Control material, process conditions and results are detailed. Observations and pics should be included as well to illustrate the tests. Additionally, the Audit Reports should follow the steps' order of the testing protocols to ensure clarity and facilitate the review by RecyClass.

## 4. LABORATORIES

RecyClass Evaluation Testing Protocols are performed by accredited laboratories duly represented by a recognized representative who operates according to the procedures and the requirements described in this document, as well as to the terms of the Cooperation Agreement.

Communication between laboratories and RecyClass must be kept at a regular basis. Laboratories must communicate to RecyClass any new applications for the protocols and status of ongoing applications. RecyClass Team in accordance with the representatives of RecyClass working groups will guide the laboratories and the applicants in defining the control sample and the testing conditions. Testing cannot start prior the approval of RecyClass Team.

RecyClass Team provides to the laboratories a dedicated online platform, where the laboratories can track all applications, provide testing status, and deliver final lab reports. RecyClass Team uses the platform as well to update the laboratories on the latest developments, documents, and protocol versions.

RecyClass Team organises workshops to align views among the laboratories and communicate new developments on the protocols.

RecyClass Team is authorized to follow Evaluation Testing Protocols in the accredited laboratories after informing the accredited laboratory minimum 2 weeks in advance.

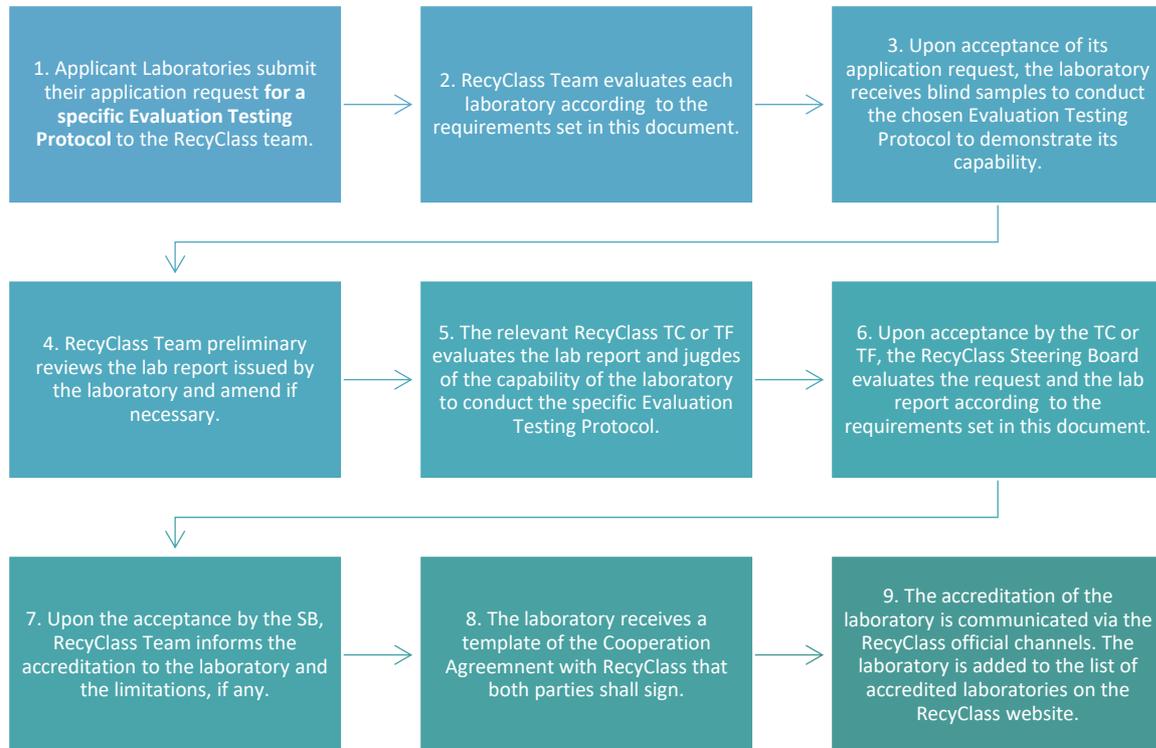
### 4.1 ACCREDITATION OF LABORATORIES: PROCEDURE

RecyClass defined a standard procedure to accredit laboratories, ensuring transparency and equality between all laboratories. The procedure aims as well to guarantee repeatable testing results in each laboratory, certifying that the choice of the laboratory will not affect the final decision of the RecyClass Technical Committees regarding the packaging recyclability.

The figure below illustrates the accreditation procedure for laboratories applying to RecyClass.

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Figure 1: Procedure of laboratories accreditation



Any change within the laboratory that would lead to non-compliance with the Cooperation Agreement and/or the requirements set forth in this document must be communicated to the RecyClass SB who will reevaluate the accreditation of the laboratory with the application requirements.

The Evaluation Testing Protocol that should be conducted by the laboratory to demonstrate its ability and to get accredited is carried out at the expense of the laboratory.

An up-to-date list of all laboratories accredited to perform RecyClass Evaluation Testing Protocols will be available on the website.

## 4.2 LABORATORIES APPLICATION REQUIREMENTS

### 4.2.1 LABORATORIES MINIMAL REQUIREMENTS

Laboratories must comply with the following requirements after applying to become an accredited laboratory:

- Laboratories must be legal entities or defined as part of a legal entity.
- Laboratories must be competent organisations with demonstrated references in the field of plastic packaging and recyclability as well as plastic processing and analyses.
- Laboratories must be certified ISO 9001, and preferably ISO 17065.
- Laboratories must have mechanisms in place to ensure impartiality of the organisation during the performance of their activities.
- Laboratories must have financial stability and must dispose of insurance or reserves to cover any liabilities arising from its operations.

## 4.2.2 LABORATORIES OPERATIONAL REQUIREMENTS & RESPONSIBILITIES

- Laboratories must have a quality management system in place which ensures compliance with the requirements laid down in this document. Procedures to identify and manage any non-conformities detected must be included along with a procedure to implement corrective actions.
- Laboratories are responsible for the competence and performance of its operators. Laboratories must have in place mechanisms to ensure competence of all operators.
- Laboratories should attend the RecyClass Workshop organised annually where any new requirements or recent developments related to the protocols are discussed.
- Laboratories procedures and operations must be non-discriminatory, and applicants should not be refused for any reason which is not detailed in this document or in the document “Technology & Product Approval Process – Procedures and Quality Management”<sup>3</sup>.
- Laboratories must ensure protocols are conducted using the latest and official version of the RecyClass Evaluation Testing Protocols and refer to the corresponding version in the lab report.
- Laboratories must appoint a lead operator who will act as a contact person between RecyClass and the laboratories ensuring a smooth communication between both organisations related to quality management, new applications, and applicants.
- Laboratories shall accompany companies during the approval process with RecyClass (e.g., participation to the RecyClass meetings, support in understanding the lab results).

## 4.2.3 LABORATORIES TECHNICAL REQUIREMENTS

To ensure a uniformly high standard of RecyClass protocols, laboratories must meet the following requirements listed below.

- Technical knowledge about chemistry and physical properties of polymers.
- Technical knowledge about plastic packaging construction.
- Good understanding of the functioning of plastic recycling processes relevant to the RecyClass Evaluation Testing Protocols.
- Above-average knowledge of the main technical challenges for plastics recycling.
- Demonstrated competence by submitting proper documentation (e.g., CV, copies of certificates of all relevant academic and professional qualifications, work experience and experience as an expert, references, reports, training).
- Demonstration of sufficient practical experience in the field of activity and the scope of expertise.
- Laboratories must be provided and have access to all the necessary equipment to run the entire Protocol and strictly follow the Evaluation Testing Protocols, for which the laboratory is applying (e.g., tests standards required, adequate lab equipment to cover all steps of the protocol(s), repeatable testing conditions, stockage area for samples).
- Laboratories must be able to ensure all protocols will not be bound by any instructions but independent work.
- Laboratories must share all necessary information to ensure the complete and correct interpretation of the results.

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<sup>3</sup> *Technology & Product Approval – Procedures and Quality Management*

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## 4.2.4 LABORATORIES IMPARTIALITY

Laboratories must be independent and impartial organisations, with no conflict of interest with the applicant of a RecyClass protocol.

Laboratories must have mechanisms in place to identify and eliminate or minimise any risks to impartiality. Any risks must be communicated to RecyClass who will determine if the measures implemented are sufficient enough to continue operating as an accredited Laboratories.

Where the laboratory is a part of a legal entity, it must ensure that separate activities do not compromise the independence of the protocols.

## 4.3 BREACH OF THE COOPERATION AGREEMENT AND REMOVAL OF LABORATORIES

Any non-conformities or non-compliant behaviour of the laboratory will be communicated to RecyClass immediately who will seek remedy for a period of 3 months.

If unsuccessful, RecyClass will present a dossier of non-conformities to the Steering Board who will assess and evaluate the laboratory in a one-to-one basis. RecyClass reserves the right to remove the accreditation to a laboratory or to terminate the Cooperation Agreement altogether between a laboratory and RecyClass upon the outcome of the laboratory evaluation. The laboratory will dispose of 60 days in order to appeal to the Steering Board on the SB decision.

## 4.4 FREE COMPETITION AMONG LABORATORIES

Companies who apply to a RecyClass Evaluation Testing Protocol may freely contract any laboratory listed on the RecyClass website. Applicants may also choose to change from one laboratory to another to perform a new protocol.

## 5. DATA CONFIDENTIALITY

Accredited laboratories must sign a Non-Disclosure Agreement with RecyClass to protect confidential information of innovative packaging design tested according to the Evaluation Testing Protocols. RecyClass provides to the laboratories the NDA template to consider.

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