


RecyClass

A graphic consisting of three thick, light blue curved arrows arranged in a circular pattern, pointing clockwise. The arrows are positioned on the left side of the slide, partially overlapping the 'RecyClass' text and the 'PLASTIC FUTURE IS CIRCULAR' box.

PLASTIC FUTURE IS
CIRCULAR

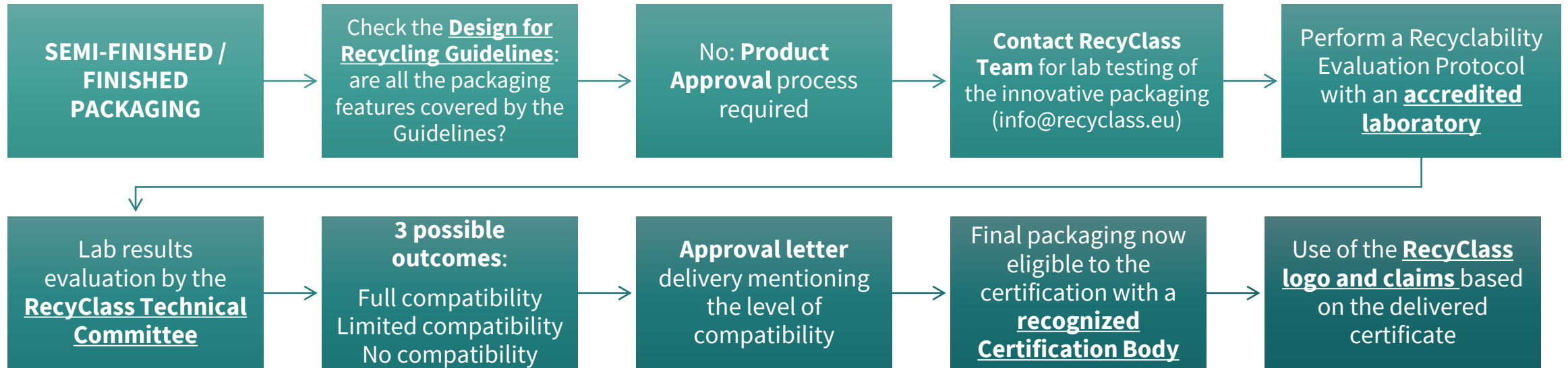
RecyClass



RECYCLABILITY
ASSESSMENTS –
BROCHURE 2023

DESIGN MATTERS!

RecyClass | DECISION TREE and PROCESS



RecyClass

DECISION TREE



Semi-finished / Finished packaging

Check the Design for Recycling Guidelines

Are all the packaging features covered by the guidelines?

YES

NO

Certification

Testing



FULL COMPATIBILITY
Green column gathers the preferred design features, that guarantee the best recyclability and quality of the recycle.
LIMITED COMPATIBILITY
Yellow column lists the second choices for each packaging feature, that have been tested or are known to slightly impact the recycling process and/or the quality of the recycle.
LOW COMPATIBILITY
Red column classifies the detrimental and disqualifying features that should be avoided when designing packaging, as these strongly impact the recycling process and/or the quality of the recycle.

RecyClass

DECISION TREE



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Approval Letter



RecyClass

FROM INNOVATION TO CERTIFICATION

Innovative Technology



RECYCLABILITY APPROVAL PROCESS



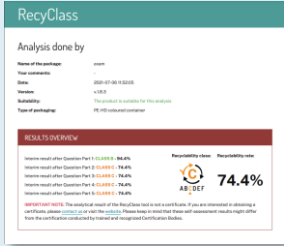
Lab Testing



Approval Letter

RecyClass	Coloured HDPE Containers and Tubes		
	YES - FULL COMPATIBILITY	CONDITIONAL - LIMITED COMPATIBILITY	NO - LOW COMPATIBILITY
MATERIAL COMPOSITION (ABSENT TO PE BY ATTACHMENTS IN THE PACKAGING)	A > 95%, B > 90% and all packaging features are FULLY compatible with recycling	C > 70% and all packaging features are FULLY compatible with recycling	D > 60%, E > 30%, F < 30% and all packaging features are FULLY compatible with recycling
DESCRIPTION (TEST PROTOCOL)	Materials that passed the testing protocols with no negative impact OR materials that have not been tested (yet), but are known to be acceptable in PE recycling	Materials that passed the testing protocols if certain conditions are met OR materials that have not been tested (yet), but pose a low risk of interfering with PE recycling	Materials that failed the testing protocols OR materials that have not been tested (yet), but pose a high risk of interfering with PE recycling
DESCRIPTION (METHODOLOGY)	In case of at least one limited compatibility one penalty is applied, lowering the recyclability class from A to B or from B to C	In case of at least one limited compatibility one penalty is applied, lowering the recyclability class from C to D	In case of at least one limited compatibility one penalty is applied, lowering the recyclability class from D to E or from E to F
MATERIAL*	HDPE; Multilayer PE with HDPE prevalence (LDPE, LDPE, MDPE)		Multilayers HDPE with PLA, PVC, PS, PET, PETG
COLOURS	All colours	Black inner layer and dark colours (NR-detectable)	Non NR-detectable colours
SIZE		Items compacted < 8 cm	Items compacted < 2 cm
PRODUCT RESIDUES (NON TOXIC*)	A if the index is < 5%; B if the index is < 10%	C if the index is < 15%	D if the index is < 20%; E < if the index is 20%; F if the index is > 25%
BARREER	EVOL < 8 ECU* + PE-g-MAN in layers with MAN > 2.15µm and EVOL in layers < 2µ (see also comments)	EVOL < 8 ECU* + PE-g-MAN in layers with MAN > 2.15µm and EVOL in layers < 2µ (see also comments)	EVOL > 10, with any other layers; PA, PDC, Aluminium
ADDITIVES	Additives that are unavoidable in processing (stabilizers, antioxidants, lubricants, nucleating agents, proceadants) and density remains < 0.87 g/cm³	Mineral fillers (CaCO3, talc) not increasing density more than 0.87 g/cm³	Additives changing the material density > 1 g/cm³; Flame-retardant additives, plasticizers; Bio-/non-biodegradable additives
CLOSURE SYSTEM	HDPE, LDPE, LDPE, MDPE	PP, PET, PETG, PLA, PS (all with a density > 1 g/cm³); Removable aluminium foiling	Non-PO and/or foams with density < 1 g/cm³; Aluminium; Metal; PVC
LINERS, SEALS AND VALVES	HDPE, LDPE, LDPE, MDPE; PE-g-PE	PP, TPE, PP; PET, PETG, PLA, PS (all with a density > 1 g/cm³); Removable silicon with a density > 1 g/cm³	Non-PO and/or foams with density < 1 g/cm³; Any other TPE; Aluminium; Metal; Foiled paper; PVC
OTHER COMPONENTS	HDPE, LDPE, LDPE, MDPE	PP; PET; PETG; PLA; PS (all with density > 1 g/cm³)	Aluminium; PVC; Glass components; Foams with density < 1 g/cm³
NOI	Non toxic following the EU REA Guidelines	Labels in PP, PO (with density < 1 g/cm³); In-Mould Labels in PE (with density > 1 g/cm³); Labels in Paper without fillers; PO (without labels); Any other in-Mould Labels in PE (except bleeding inks)	Labels that hinder the recognition of the PE; Labels in non-PO materials with density > 1 g/cm³; Paper labels with fillers during recycling process; Carboned or paper in-Mould Labels; Aluminium; Metallised labels; PVC
LABELS MATERIALS (PE, PET, POLYESTER, METAL, LABELS, INK, VARNISHES, LABELS, INK)	Water soluble adhesive (B less than 40°C; Non-releasable adhesive (B less than 40°C)	Non-water soluble or non-releasable adhesive approved by RecyClass in combination with those PO labels	Non-water soluble adhesive (B less than 40°C; Non-releasable adhesive (B less than 40°C)
ADHESIVES FOR LABELS	Sleeves in PE (all with density < 1 g/cm³); Self-adhesive plastic not containing sleeves under mechanical pressure (excluding ink, readability)	Sleeves in PO (with density < 1 g/cm³); Sleeves in PET, PETG, PET-C, PLA, PS (all with density > 1 g/cm³); Cardboard sleeves without (varnish, lacquer, ink, readability)	Sleeves that hinder the recognition of the PE; Sleeves in non-PO materials with density < 1 g/cm³; Cardboard sleeves with fillers during recycling process; Aluminium; Metallised sleeves; Heavily inked sleeves; PVC
SLEEVES	Direct printing	Direct printing; Coating on the surface of the container that does not hinder the recognition of the underlying PE polymer	Direct printing
DIRECT PRINTING	Label marking; Production or heat-before-plate; Laser printing (ink & lacquer) < 1% of the total packaging (except dark colours)	Electroplating on attachments (with density > 1 g/cm³)	Electroplating on attachments (with density < 1 g/cm³)
OTHER DECORATIVE TECHNOLOGIES			

Self-Assessment (Online Tool)



CERTIFICATION PROCESS



CB Audit



Certification

RecyClass | CERTIFICATIONS

FINAL PACKAGING

DESIGN FOR RECYCLING CERTIFICATION



- ✓ **Class Ranking from A to F**
- ✓ Valid for the **EU market**
- ✓ Based on the **European plastic waste streams**
- ✓ Packaging design, sorting behaviour, end-markets included

RECYCLABILITY RATE CERTIFICATION



- ✓ **Recyclability Rate from 0 to 100%**, in addition to class ranking
- ✓ **Country-specific** (based on the **local collection and availability of infrastructures**)
- ✓ Packaging design, sorting behaviour, end-markets included
- ✓ **On-pack logo for class ranking**

SEMI-FINISHED PACKAGING

LETTER OF COMPATIBILITY

- ✓ **Class Ranking from A to F**
- ✓ Valid for the **EU market**
- ✓ Based on the **European plastic waste streams**
- ✓ Packaging design, sorting behaviour, end-markets included
- ✓ Mainly destined to **converters**
- ✓ **Use of the recyclability logos forbidden and only B2B communications are permitted**
- ✓ **Recommendation to certify the final packaging as next step**



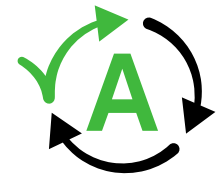
RecyClass | CERTIFICATIONS: FINAL PACKAGING

DESIGN FOR RECYCLING ASSESSMENT

- Technical Assessment: **ranking from A to F**
- Valid for the **EU market**
- Based on the **European plastic waste streams**
- Packaging design, sorting behaviour, end-markets included



RECYCLABILITY RATE ASSESSMENT



A B C D E F

+

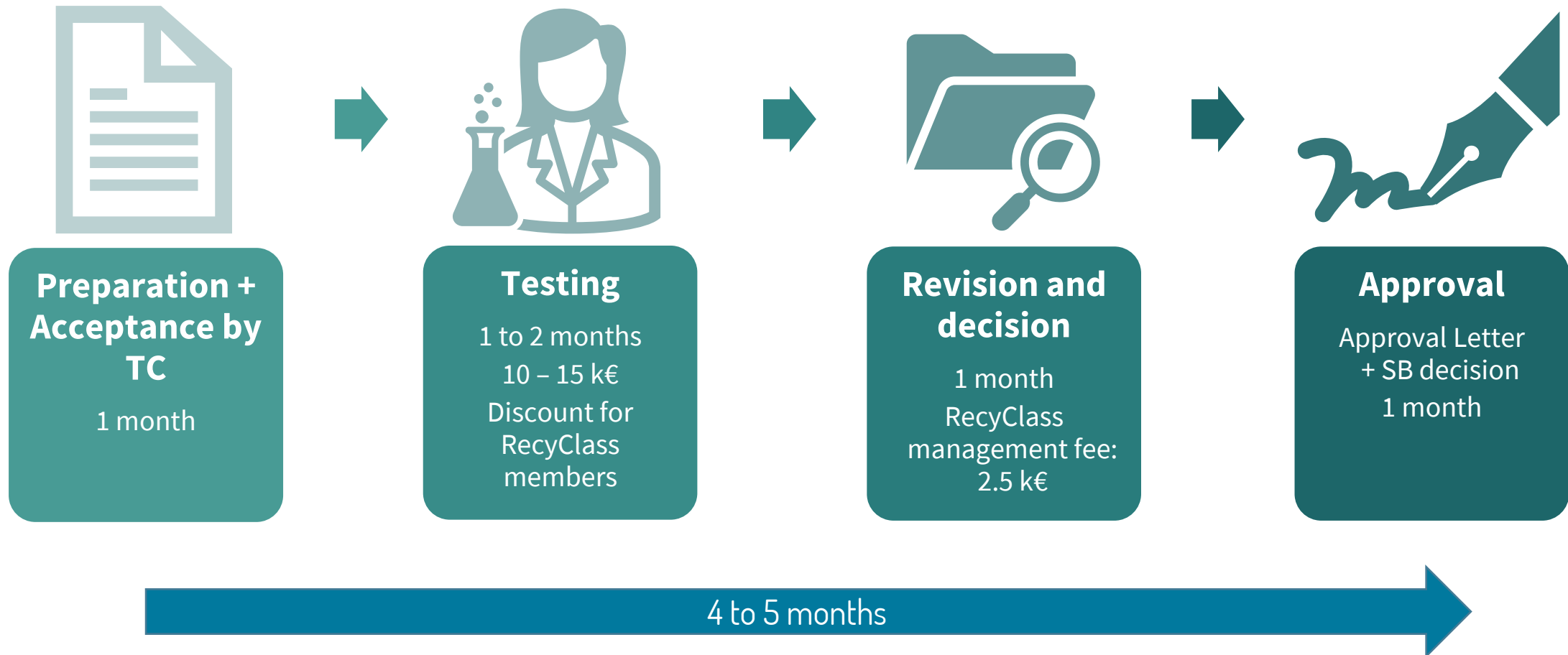
90%

- Quantitative Assessment: **Recyclability rate (%)**, in addition to class ranking
- **Country-specific**
- Based on the **local collection and availability of infrastructures**
- Packaging design, sorting behaviour, end-markets included
- Use of the logo on-pack allowed

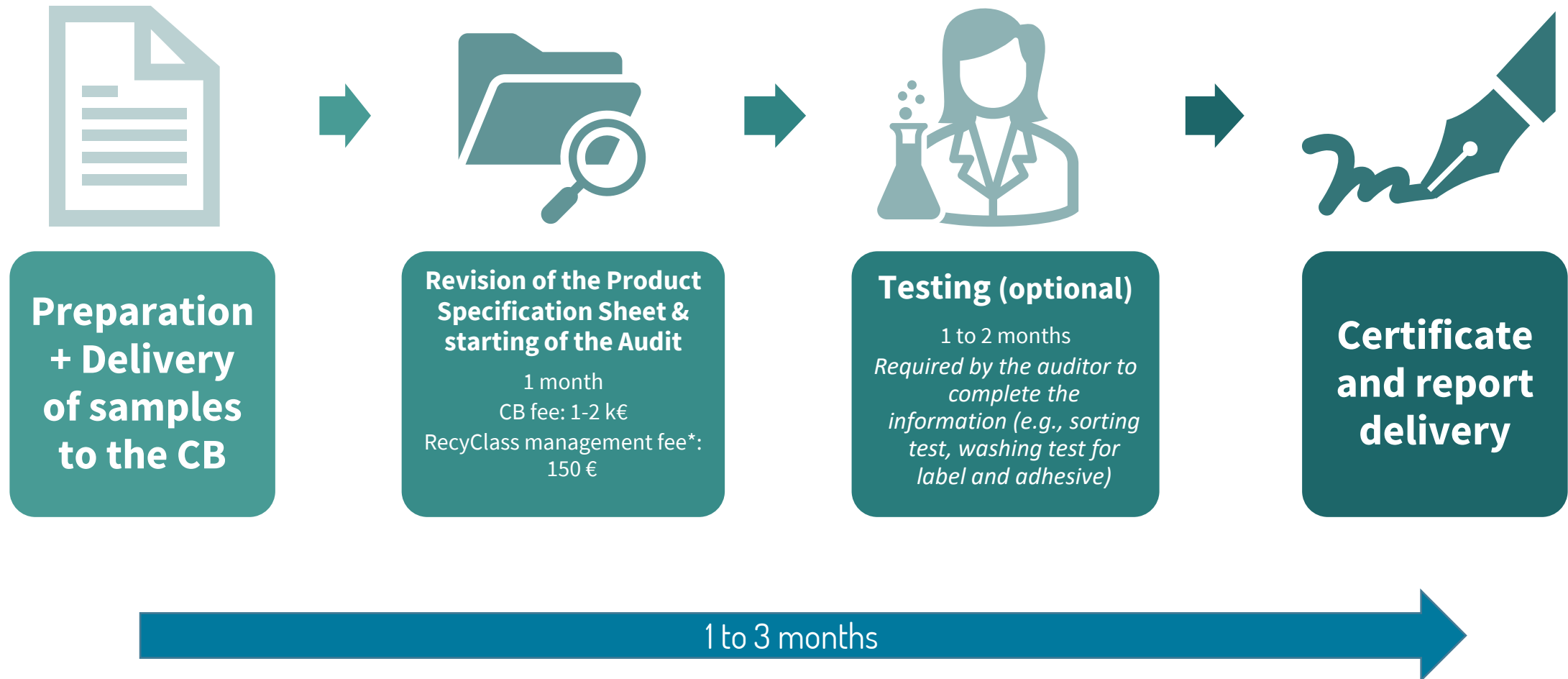


[Detailed information online](#)

RecyClass | TIMELINE: RECYCLABILITY APPROVAL



RecyClass | TIMELINE: RECYCLABILITY CERTIFICATION



**The RecyClass management fee may vary depending on the number of the equivalent packaging.*

RecyClass

THANK YOU FOR
YOUR SUPPORT

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A graphic consisting of four thick, light blue curved arrows arranged in a circle, pointing clockwise. The arrows are positioned around the central text, creating a circular flow effect.

RecyClass

PLASTICS FUTURE IS CIRCULAR