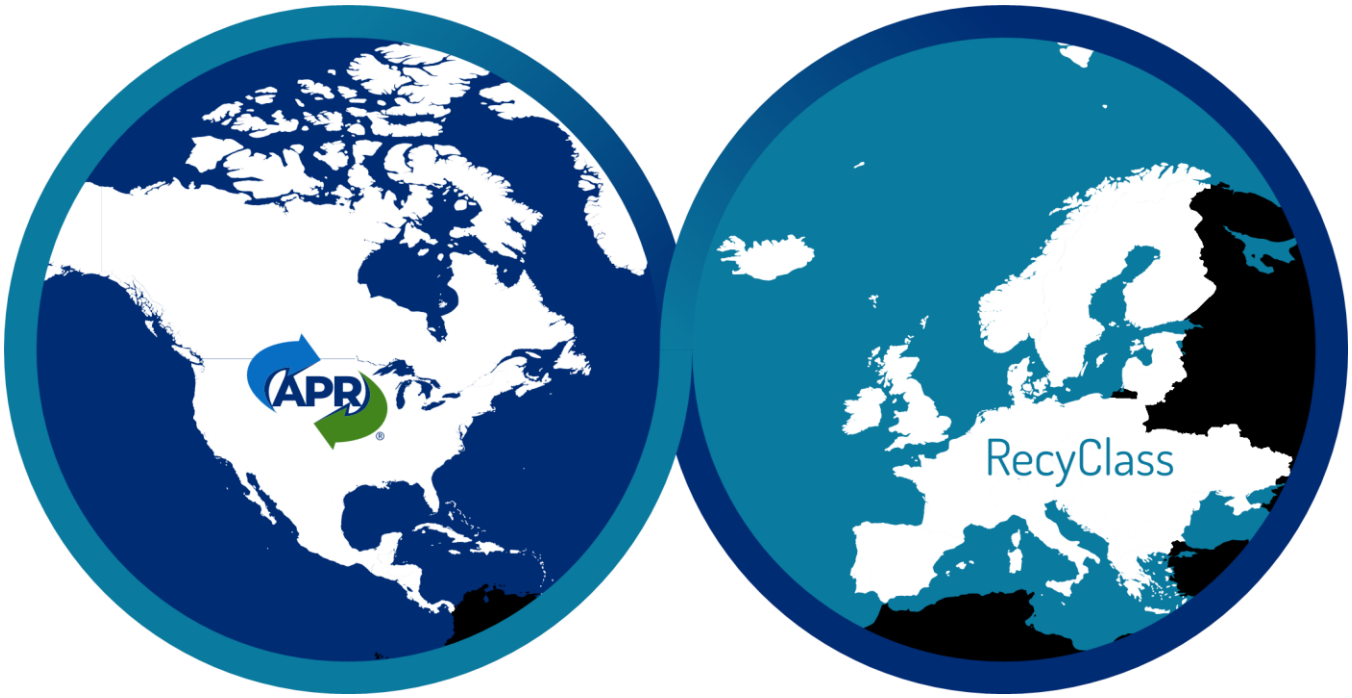
APR-RecyClass Cooperation Report

May 2026



INTRODUCTION

In March 2023, The Association of Plastics Recyclers (APR) and RecyClass signed a cooperation agreement, for a duration of 3 years, with the objective to drive global harmonization on Design for Recycling of plastic packaging. While both organizations represent a different geographical market, there are many similarities between them including a united goal to recycle more plastics to reduce waste and facilitate the transition toward a circular economy. Both organizations are non-profits and are largest organizations in their respective regions representing the entire plastics recycling industry. Both APR and RecyClass strive to build design for recycling guidance for the plastic packaging industry based on scientific findings and following a fact-based approach. Through their work, the two organizations address packaging materials and format-specific Technical Committees consisting of experts from across the supply chain focused on specific recycling streams.

Further details for each organization include:

- APR is a North American based association whose core membership are the plastics recyclers and reclaimers with affiliate members representing of all steps in the plastic packaging supply chain including raw material suppliers, converters, retailers, consumer package groups (CPGs), etc. The APR developed their first APR Design® Guide for Plastics Recyclability in 1994 dedicated to PET and HDPE rigid packaging. Over the years, this document has expanded to include PP rigid, PE flexible and PP flexible packaging and continues to provide guidance to packaging designers to ensure their packaging is compatible with the recycling infrastructure, thereby increasing the quality of recycled plastics and increasing efficiency of the recycling process. The APRDesign® Guide also integrates testing protocols to allow innovators to test the effect of their packaging innovations on the recycling, sorting, and processing infrastructure.
- RecyClass is a non-profit, cross-industry initiative advancing recyclability, bringing transparency to the origin of plastic waste, and establishing a harmonised approach toward recycled plastic calculation & traceability in Europe. RecyClass develops Recyclability Evaluation Protocols and scientific testing methods for innovative plastic materials which serve as the base for the Design for Recycling Guidelines and the RecyClass Online Tool. RecyClass established Recyclability Certifications for plastic packaging, Sorting Process, Recycling Process and Recycled Plastics Traceability Certifications for plastic products.

Information developed by APR & RecyClass is essential to helping build and scale a circular economy for plastic packaging. Their guidance and testing protocols help brand owners, converters and other packaging specifiers understand how to optimize plastic packaging

design for the recycling industry and maximize circularity. Additionally, this information supports other organizations that are stakeholders in developing a circular economy such as NGO's and policy makers.

To ensure optimal cooperation and sharing of information to avoid duplicating work, RecyClass and APR teams agreed to have their staff members in charge of their respective technical committees participate in the equivalent technical committee of the other organization. New findings were communicated through the Design for Recycling guidelines and via press releases or webinars. In that regard, APR and RecyClass hosted joint webinars, and participated in common panel discussions in multiple conferences to spread the message of a global harmonization effort.

Objectives of the cooperation

APR & RecyClass cooperation is driven by the idea of promoting global harmonization and proposing solutions to the plastic packaging industry on how to design recyclable plastic packaging. The main objectives of this cooperation began with the transfer of knowledge and scientific data from one organization to the other to close the gap between the Design for Recycling guidelines with the following objectives:

- Develop a unified set of design for recycling guidelines to facilitate plastics circularity.
- Work towards alignment of the Recyclability Evaluation Protocols (RecyClass) and Critical and Application Guidance Protocols (APR) based on comparative data obtained by testing identical packaging features and innovations according to APR & RecyClass testing procedures.
- The long-term objective is to have both organizations delivering approval letters (RecyClass) or recognition letters (APR) based on both recyclability protocols
- Better align the approach and protocols to evaluate the sorting efficiency of plastic packaging.

This update builds on the progress reported in our **2025 APR-RecyClass Cooperation Report** published in April 2025.

Design for Recycling Guidelines and Recyclability Methodology

According to APR and RecyClass definition of recyclability, both APR and RecyClass developed Design for Recycling Guidelines on the base of testing results by using their own recyclability testing protocols Both set of guidelines are based on a green, orange, & red traffic-light color to represent the different levels of compatibility with recycling of each plastic packaging feature, being respectively full, limited and low/no compatible. The descriptions of the categories are given in the following table. While they are quite similar, subtle differences exist, which translate to differences within APR and RecyClass's respective guidance. Elucidating and narrowing these minor differences is within the scope of the cooperation.

Comparison of Feature Assessments – APR & RecyClass

APR	RecyClass
Preferred: Features readily accepted by MRFs and recyclers since the majority of the industry has the capability to identify, sort, and process a package exhibiting this feature with **minimal, or no, negative effect on the productivity of the operation or final product quality**. Packages with these features are likely to pass through the recycling process into **the most appropriate material stream with the potential of producing high quality material.**	**Full compatibility: Preferred design features**, that guarantee the **best recyclability and quality of the recyclate**. Packaging with such features does not pose any recyclability issues and the recycled plastics can potentially feed a closed-loop scheme to be used in the same quality application.
Detrimental: Features that present **known technical challenges** for the MRF or recycler's yield, productivity or final product quality, but are grudgingly **tolerated and accepted by the majority of MRFs and recyclers.** A plastic item may be considered Recyclable with Detrimental features with the understanding that package manufacturers **should use the detailed guidance provided by APR to change their design and achieve Preferred status.**	**Limited compatibility: Second choices** for each packaging feature, that **slightly impact the recycling process and/or the quality of the recyclate**. Packaging containing such features presents some recyclability issues that affect the quality of the recycled plastics or lead to material losses during recycling. In the first case the recycled plastic could be used in a cascade open-loop scheme, whereas in the latter case the plastic could potentially feed a closed loop scheme.
Non-recyclable: The majority of MRFs or reclaimers **cannot remove these features** to the degree required to generate a marketable end product, or the package **cannot be captured at a majority of MRFs** or reclaimers due to typical machinery settings or equipment capabilities. Ultimately, a package exhibiting this design feature **will be completely discarded even if it has other Preferred features**.	**Non-compatibility:** Detrimental features that **should be avoided** when designing packaging, as these **strongly impact the recycling process and/or the quality of the recyclate.** Packaging containing such features has significant design issues that highly affect its recyclability or imply large material losses. In both cases, the recycled plastic can only be fed into low-value applications at best (i.e. the packaging will be downcycled).

Both organizations utilize the categorization of each design feature to build full plastic packaging recyclability assessments. RecyClass developed a European methodology to assess (free online RecyClass Tool) and certify (via third-party audits) recyclability based on:
- the Recyclable Plastic Content
- the Design for Recycling guidelines.

The RecyClass assessment results in a class grading (A to C) indicating the level of recyclability which can be impacted by each individual factor of a packaging design. Only

classes A, B and C are considered recyclable. Each recyclability class is linked to a minimum recyclable plastic content (i.e. 95% for A, 80% fo B and 70% for C). Packaging with class "A" (i.e. recyclable plastic content ≥ 95wt% and all features listed as fully compatible in the guidelines) can be recycled in closed-loop systems, for instance "bottle-to-bottle" or "film-to-film". APR has full packaging self-assessment using a green, orange, & red traffic-light color scheme with a Preferred Design for Recycling classification indicating the best opportunity for circular applications. While there is some overlap with RecyClass's B and C across APR's "Tolerated but Needs Improvement", the approximate alignment between the two whole package assessments is shown in the figure below.

A difference between APR and RecyClass lies in the end application for recycled plastic where RecyClass targets high quality recycled plastic to feed bottles-to-bottles and films-to-films circular applications, as a benchmark. On the other hand, APR is open to consider as recyclable a packaging that can be technically recycled and the recycled plastic can be used in an equivalent packaging application or in non-packaging applications (i.e. pipes, fibers).

Due to the recent approval of the Packaging and Packaging Waste Regulation (PPWR), imposing all packaging to be recyclable by January 2030 by means of 3 Recyclability Performance Grades A, B, C, RecyClass recently updated its recyclability methodology in alignment with the PPWR. By adopting the new framework, RecyClass ensures that only the recyclability classes A, B, and C are considered (i.e. D, E, F were canceled), reflecting a more stringent and harmonized approach to assessing packaging recyclability. This alignment enhances transparency, supports the circular economy, and provides clearer guidelines for the industry to improve packaging design in line with evolving regulatory requirements.

Approximate Whole Package Alignment

HDPE and PP Rigid Packaging

Harmonization steps achieved in 2023

Significant progress was evident after one year of cooperation, with key achievements in harmonization and alignment, including:

- EVOH: RecyClass shared testing results; APR approved thresholds and tie layer requirements in accordance with RecyClass recommendations.
- PE Closures: APR shared their guidance; RecyClass endorsed them and updated the Design for Recycling Guidelines accordingly.
- Density Limit: APR adopted RecyClass's 0.97 g/cm³ maximum for polyolefin rigid packaging.

Harmonization steps achieved in 2024

During 2024, significant progress was made in aligning key design for recycling criteria between APR and RecyClass, addressing previously identified discrepancies. The main changes in regard to the Design for Recycling Guidelines are listed below:

- **Foamed Olefinic Parts**: RecyClass testing led to a unified approach in guidelines, confirming these materials as compatible with HDPE and PP recycling.
- **EVA in Closures**: RecyClass updated guidelines to align with APR's approach, considering EVA fully compatible with HDPE and PP recycling.
- **TPOs & TPSs**: RecyClass testing enabled alignment with APR's recommendations on their use in HDPE & PP packaging, recognizing their use in HDPE and PP packaging as preferred by APR.
- **Density**: APR updated their density guidance to be in line with RecyClass.

Moreover, an important step in the collaboration between both organizations was the performance of two joint tests, one on HDPE packaging and the second one on PP packaging. In these tests, the packaging was subjected to both APR's and RecyClass' protocols in parallel at the same testing facility. The test reports indicated that certain aspects of the protocols might require alignment to promote potential mutual recognition in the future. The main aspect to highlight relates to the filter pack used, which may lead to different results when assessing the extrusion process. **Based on these findings, APR has concluded that aligning with RecyClass' filter pack was necessary, closing the gap in this aspect and facilitating a potential future two-way recognition of test reports.** Additionally, with the

completion of two parallel testing protocols, IKTR has been recognized as an APR Candidate testing lab for HDPE and PP rigid. This expands the testing options for innovators seeking to receive both APR and RecyClass recognitions.

Harmonization steps achieved in 2025

Both organizations continued to work towards increased harmonization in 2025. Main areas of harmonization include:

- **Foamed and filled Olefinic Parts**: RecyClass adopted APR guidance to evaluate part density prior to foaming as foaming can allow for upwards of 50% filler content without increasing the density so that the package would sink. This would lead to higher than desirable filer levels in the recycled pellet. As part of this harmonization effort, APR adopted a maximum ash content of < 2 wt% for 50/50 blend of innovation and control resins for both HDPE and PP Critical Guidance testing protocols matching the requirements the RecyClass Recyclability Evaluation Protocols for HDPE and PP rigid packaging.
- **Tie layers for rigid PP barrier:** Due to the need for increased compatibility in tie layers for PP-based barrier packaging with PE film, APR broadened the requirement for PP-g-maleic anhydride tie layers to allow for the use of a polyolefin-g-maleic anhydride. RecyClass followed suit in the extension.
- **Screen pack used during recyclability evaluations:** APR matched the RecyClass screen pack size for extrusion 300-120-300 µm (50-120-50 mesh) in testing protocols in part to decrease hurdles to performing dual testing.
- **Spray Dispensers/-Pumps:** APR adopted RecyClass guidance which sets a 10% maximum polyolefin contamination in packaging for spray dispensers and pumps as Preferred aligning with the RecyClass Full Compatibility designation.
- **Natural PP recycling design guidance**: While complete harmonization was not achieved, APR relied heavily on RecyClass guidance for Natural PP in APR's development of Natural PP **recycling design** guidance and the two sets of guidance are relatively well aligned. The resulting differences are due to a number of factors including the existence of US FDA and Canada Health Non-objection potential for the rPP from this stream and APR's allowance of washable (flaking inks). The regulatory allowances led the APR guidance to restrict all resins, additives, barriers, etc. to require FDA Food Contact per FDA Title 21 CFR 170 and Title 21 CFR 170 to reduce the risk that non-food allowed additives and resins enter the stream. The allowance of washable (flaking) inks enables the use of direct print, common in natural PP cups, to be utilized and removed during the high temperature caustic wash process utilized

resulting in less color contamination than non-washable inks.

- **APR recommendation for additional testing facilities in Europe:** IKTR has been added to APR's list of recommended laboratories for rigid PP, HDPE and PET packaging. Additionally, AIMPLAS has expanded their APR testing capabilities to include rigid PP and HDPE packaging.

PE and PP Flexible Packaging

Harmonization steps achieved in 2023

Already significant progress could be seen after 1 year of cooperation. Among the harmonization or better alignment, one should mention the following achievements:

- On testing protocol for PE films:
  - RecyClass is recommending producing both 50 and 25 µm films. Like APR, the 50 µm film will be used for mechanical performance characterization.
  - On Gels & Specks characterization, RecyClass now also recommends following APR procedure to evaluate the quality of PE films, through their FAR Rating approach.
  - Washing steps, which was mandatory for RecyClass assessments in the past, became optional depending on the nature of the innovative feature to evaluate. Since APR does not request a washing step for PE films, this allows for similar pre-treatment steps.
- On Design for Recycling guidelines:
  - After test campaigns and consultation with the entire value chain, APR and RecyClass are now providing the same recommendations related to EVA, Ethylene-based copolymers, and ionomers.

Harmonization steps achieved in 2024

In 2024, the following actions were done in order to further bridge the gap between both organisations, and get closer to harmonized guidelines and protocols:

- RecyClass and APR decided to join forces to better understand the impact of laminating adhesives and inks on the recyclability of PE films. While both organisations will be performing separate test campaigns, discussions took place on the Design of Experiments of the new test campaigns. Data from previous test campaigns were shared in order to compile results and improve analyses.

- The first APR-RecyClass common tests were performed on specific innovations for PE films according to respective testing procedures. These can be used as a starting point for the comparison of the two recyclability evaluation protocols.
- While no alignment could be found on nitrocellulose-based (NC) inks, APR updated its recommendation warning about the use of NC-inks on flexible packaging based on RecyClass testing results. Better harmonization could happen based on the results of the ongoing test campaign from APR.

Harmonization steps achieved in 2025

In 2025, the following actions were done in order to further bridge the gap between both organisations, and get closer to harmonized guidelines and protocols:

- RecyClass and APR agreed on recognizing that EVOH <= 5 % + PE-g-MAH tie layers with MAH > 0.1wt% and EVOH:tie layer ratio <= 1 is fully compatible with PE films recycling. Note that APR extended this compatibility up to 10wt% of EVOH for co-extruded structures, while RecyClass continues to ask for recyclability tests above 5wt%.
- Both organisations worked on improving their gels counting method (or Films Appearance Rating) to enable more reliable and repeatable results. RecyClass published the new method on January 2026 and will feed APR with feedback to push for harmonization.

As APR progresses on the test campaigns related to ink binder chemistries, and that RecyClass published in Q1 2026 their results on NC-free binders, there is a potential to more closely align guidance on inks.
Besides, the recent results of RecyClass on electron-beam treatment will be shared with APR to try to reach an alignment on Design for Recycling Guidelines.

PET Bottles and Trays

Harmonization steps achieved in 2023

Comparison of APR Critical Guidance and RecyClass Recyclability Evaluation Protocols
In 2023, RecyClass developed new Recyclability Evaluation Protocols for PET bottles and for labels & adhesives applied on PET bottles, based on the State-of-the-art of European PET recycling processes. For these new testing methods, RecyClass utilized APR's Critical Guidance testing protocols as a starting point in the development of their Recyclability Evaluation Protocols for PET bottle packaging. In that regard, both Critical and Application Guidance of APR and RecyClass Recyclability Evaluation Protocols are very much aligned, with only a few differences, such as stirring speed during washing, benchmarks for

characterization, or small variations in processing temperatures. As these are minor deviations, both organizations strongly believe that through common testing, and data-based discussions, these protocols will continue to get closer in the future.

Comparison of Design Guidance given by RecyClass and APR
A review of PET recycling design guidance documentation from each organization reveals, in most cases, that the factual content and topics covered are very similar. There are differences in editorial style and level of detail given. There are only a couple of cases where divergent information is presented.

Following are three summary comparisons to illustrate the guidance given by each organization for PET containers:

- Container material – RecyClass recommends the use of 90% of PET in a packaging. APR calls for PET resins that meet a few specific criteria and currently has no guidance speaking to minimum PET content.
- Closures and liners – RecyClass provides a concise listing of materials that can be used in closures, liners and dispensing valves. This list includes floating silicone materials that are considered as limited compatible with PET recycling. APR provides a broader definition of olefin and other materials that are acceptable, based on their density, but this list does not include floating silicones specifically.
- Labels and Inks – While much of the guidance is similar, APR and RecyClass differ in the level of detail of key requirements. RecyClass gives more direct guidance on label density, ink composition, and direct printing limits while APR focuses on the combined impact of label components. APR and RecyClass guidance are also not completely aligned regarding NIAS in inks and adhesives, as well as wastewater disposal standards, as they differ between Europe and North America.

Harmonization steps achieved in 2024

Some actions were completed to improve alignment on recyclability testing and design recommendations between both organizations. The following points can be underlined:

- On floating silicones, APR is now recommending testing such solutions, which are not identified as optimal choices. RecyClass is also recommending moving from floating silicones to thermally processable polyolefin TPO solutions.
- On PET Thermoforms, APR published the “PET Thermoform Packaging Design Resource Document”, where several similar design recommendations are comparable or identical to the ones given in RecyClass Design for Recycling Guidelines for PET Thermoforms. A

full alignment is not present yet, but both organisations share the same objective, being to have all contaminants (non PET elements) removed from the PET trays before or during the recycling process.

- Regarding recyclability evaluation procedures, steps toward harmonisations were done in 2024, in particular with the alignment of benchmark recommendations on IV and other parameters.

Harmonization steps achieved in 2025

In 2025, APR and RecyClass continued their collaboration to further align PET recyclability design guidance and testing approaches. The following achievements can be highlighted:

- Alignment on light translucent blue PET bottle definitions – both Recyclass and APR conducted studies of similar nature to gather feedback from the PET reclaiming industry on the acceptability and compatibiliy of light translucent blue bottles with end market. APR is still finalizing its findings into formal design guidance with an improved testing protocol. Current outcomes indicate a clear trend toward harmonization with the RecyClass definition.
- PET closure systems were a focus of both organizations in 2025. APR developed design guidance requiring testing of the base resin at 100% of the innovation sample, as well as testing of any additives used in the closures. In parallel, RecyClass conducted a study on the two major commercial PET closure solutions and found them to be compatible with recycling. These outcomes represent an important step toward harmonized guidance on an emerging packaging format.
- RecyClass and APR continued their divide and conquer approach to assess the recycling impact of commonly used additives. APR took the lead in developing a test method to better evaluate the heat stability of toners in PET bottles, while recyclass focused on studying reheat additives. Findings from both workstreams will be shared across organizations to support future guidance proposals for the respective memberships.

Overall, in 2025, RecyClass and APR continued to work on many crucial topics to improve rPET quality and facilitate the testing of innovative materials. In general, the focus whould remain on developing equivalent test methods for clear PET bottles that are harmonized, complimenting and supporting design guidance.

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Challenges and opportunities for future harmonization

While a global alignment has been reached regarding recyclability evaluation methods and design for recycling recommendations as reported in the previous section, several challenges and opportunities for future harmonization remains. This section aims at highlighting these remaining differences.

HDPE & PP Containers

In Europe, the development of novel technologies enabling the production of contact-sensitive recycled HDPE and PP materials has accelerated significantly over the past year. The primary driver of these developments is the need to comply with the recyclability and recycled content targets set by the PPWR by 2030. Despite the still limited availability and deployment of these materials, RecyClass has initiated work on the development of Recyclability Testing Protocols and Design for Recycling Guidelines for contact-sensitive HDPE and PP applications. One of the key objectives of this work is to bridge the gap between the washing conditions currently applied by APR for materials intended for food contact—designed to meet FDA requirements—and the cold-washing procedures currently used in RecyClass HDPE and PP Recyclability Evaluation Protocols.

As contact-sensitive streams are typically associated with natural and white HDPE and PP packaging, it is essential to define a common approach to colour thresholds for the resulting recycled materials, while taking into account the specificities of each region. In this context, assessing the releasability of decorations from HDPE and PP containers represents both a key priority and a significant challenge. Understanding the behaviour of labels, sleeves, and printing inks throughout the recycling process is a fundamental part of this work, as is assessing how recyclers in different regions can manage these elements within their existing processes.

The inclusion of industrial packaging within the scope of the PPWR, together with the associated recyclability and recycled-content requirements, has created the necessary framework for RecyClass to establish a dedicated Task Force addressing these packaging types. The use of different barrier technologies, closure systems, additives, and other components requires a targeted technical focus. Collaboration with APR on approaches to study and assess these components will therefore be a key element of future discussions, particularly given the presence of these packaging formats in the North American market.

In parallel, the organisation of round robin testing campaigns will play a critical role in strengthening the robustness and reproducibility of both APR and RecyClass procedures for rigid HDPE and PP containers. By involving a network of common, independent laboratories,

these interlaboratory comparisons can help assess variability, identify methodological gaps, and validate key testing parameters across different testing facilities. Strengthening collaboration with shared laboratories will support the harmonisation of analytical approaches and improve the robustness of test outcomes.
Finally, identifying an appropriate pathway for innovations such as RFID integration in rigid HDPE and PP packaging remains an open challenge and a topic that will require joint discussion and alignment.

PE & PP Flexible Packaging

Based on the complexity of PE flexible packaging and differences in collection mechanisms , processing, and end markets for films, a lot of work still needs to be done to support the industry in the development of future recyclable packaging. Both APR and RecyClass align on the fact that features such as inks, barrier materials or adhesives will all be challenging components to address, and that they should be prioritized to deliver better, more aligned, Design for Recycling recommendations.
APR recently implemented new guidance on EVOH use in PE films; this is aligned with RecyClass for laminated structures, but is slightly higher for co-extrusions. The difference comes from the need to have higher EVOH levels in structures in North America due to longer shelf life expectancies.
PP flexible packaging has not previously been collected in North America due to a lack of infrastructure, regulations supporting its collection, and markets for the recycled output. With the emergence of new regulations and EPR programs, these materials are now being collected in Canada. APR's Film Technical Committee published preliminary Design Guidance for PP films, which currently differs from RecyClass Design for Recycling Guidelines, since more development of the stream and end markets is needed. The APR Film Technical Committee will study RecyClass's PP flexible testing protocols as APR develops its own PP film test protocol once end-market requirements are better understood.
Visual appearance of tested films has been an issue for both organizations as manual methods tend to have significant subjectivity. Just as APR and RecyClass both use the FAR test, both are now looking at potential updates to refine the procedure. RecyClass has already done some baseline roundrobin testing which will provide valuable data as the test is modified for both organizations.
There are numerous areas of research that both APR and RecyClass have underway that could be beneficial to both organizations. RecyClass is planning test campaigns to understand how much PE can be in the PP stream and visa versa. APR is planning work to look at the impact of control selection and what the most conservative test structure may be for new design features such as labels, adhesives, or attachments.

PET Bottles & Trays

The MRF sortation and reclaiming process steps associated with PET packaging are virtually equivalent in Europe and North America. So, it is logical that design guidance and recycling evaluation tests can be similar, if not exactly the same, for each region. Besides, it is noticeable that both Europe and North America are facing the same challenges in terms of contamination of the PET bottle stream leading to sometime an extensive yellowing and darkening of the rPET. Unfortunately, RecyClass and APR still differ on their Design for Recycling recommendations for some of the features that will affect the most the quality of rPET, in particular additives, inks and adhesives.

While both APR and RecyClass highlighted the role that additives can play (positive or negative), and conducted test campaigns on some categories (reheat additives, or toners), many unknown remains regarding the impact of other types of additives, and no standard recyclability evaluation method exists for these components. The development of standards to evaluate the impact of additives after multiple recycling loops should be developed, considering also the substances that could be non-intentionally created.

Another critical difference remains the classification of inks based on their behavior during hot washing. While APR endorses the use of washable/deinkable inks in combination with cPET sleeves, RecyClass continues to consider them as non-recyclable due to the additional cost and risks that these would represent for recyclers water treatment. Note that, in 2026, RecyClass intend to further study on the behavior of inks during PET washing process.

Finally, on adhesives for labels, while both APR and RecyClass recently updated their recyclability evaluations protocols but could not fully align on the methodology. Due to the sensitivity of these assessments, this means that separate recyclability tests remain necessary to obtain both an APR and RecyClass recognition.

APR and RecyClass remain committed to working together to improve the recyclability of PET packaging through aligned technical approaches and science-based guidance. In addition to continued cooperation on PET bottles, both organizations will further collaborate on PET thermoform and tray guidance. While there are major differences in how these materials are collected and processed within European and North American systems , which will necessarily lead to some differences in requirements, both organizations will seek to align protocols as much as possible particularly in how testing programs are structured. Through continued collaboration, APR and RecyClass aim to strengthen harmonization where feasible and support the production of high-quality rPET for global markets.

Next Steps of the Cooperation

This cooperation confirmed that similar challenges exist on both continents with regard to Design for Recycling, and that more harmonization is needed to provide consistent guidance to industry. Achieving this harmonization requires a substantial increase in the exchange of information and data to address remaining gaps. Over the three years of collaboration, APR and RecyClass exchanged a significant amount of recyclability data and technical knowledge, enabling alignment of Design for Recycling recommendations, particularly for HDPE and PP rigid packaging.

However, considerable work remains, especially for flexible and PET packaging. In the case of flexible packaging, differences in collection, sorting, and recycling infrastructures, as well as divergent legislative frameworks between Europe and North America, have led to different priorities and areas of focus, limiting the potential for alignment. Addressing these misalignments will require multiple coordinated test campaigns by both APR and RecyClass to generate robust scientific data, which can then be shared and discussed within the respective Technical Committees.

Both organizations also acknowledge that one of the initial objectives—developing common recyclability evaluation protocols—was not achieved during this cooperation. Although calls were made to the plastics packaging value chain to support testing under both APR and RecyClass protocols, participation was very limited despite early interest in the collaboration. As a result, the recognition of new technologies in Europe and North America will continue to be assessed on a case-by-case basis until sufficient comparative data becomes available.

While this three-year cooperation has now concluded, both APR and RecyClass remain committed to a technical, science-based approach as the only credible path toward delivering aligned and consistent messages to industry. Beyond the formal end of the cooperation, the two organizations will continue to exchange data and participate in each other's Technical Committees, maintaining open channels for dialogue and maximizing opportunities for future alignment.

Both organizations remain optimistic about delivering a common message to the industry.

Acknowledgments

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