

Overall Recyclability Assessment for Core and Challenged Formats

*A Comprehensive
Evaluation to Determine
the Recyclability of a
Package's Material
and Format Based
on Current Data &
Applicable Law*



How2Recycle®

A Project of
 greenblue



Applicable Law

What does the law say about recyclability claims?

How2Recycle ensures its labels comply with all relevant laws and regulations, including the FTC’s Green Guides, Competition Bureau Canada’s standards, and emerging state and provincial policies. This helps maintain consumer trust and prevents misleading claims. This criterion assesses whether the package meets the legal requirements for recyclability claims in the regions where it is sold.



Collection

What percentage of the population has access to recycle this package in their community?

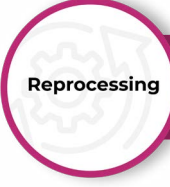
Assessing a package’s acceptance to existing recycling programs involves examining the percentage of the population with access to recycling services in their communities. How2Recycle uses The Recycling Partnership’s Community Recycling Program Acceptance Data to assess recycling access for specific materials and formats in the U.S. and refers to CM Consulting’s report, “Access to Residential Recycling of Packaging and Packaging Material in Canada,” for Canada. How2Recycle will refer to new data that SPC and RRS are collecting on PE film and flexible packaging access for future assessments once it becomes available.



Sortation

Will the package be properly and consistently sorted in a material recovery facility (MRF) or recycling center?

Sortation refers to how well the package can be identified and sorted into the correct material stream at Material Recovery Facilities (MRFs). Factors like size, shape, flexibility, and density impact whether the package is correctly sorted into the appropriate recycling stream. Poor sortation can result in contamination or disposal in landfills. Packaging that meets industry standards for dimensionality and format has a higher likelihood of successful sorting and recycling. Additional testing may be required for package formats not covered by existing protocols.



Reprocessing

Will the package be successfully reprocessed at paper mills, plastic reclaimers, film recyclers, etc.?

Technical recyclability testing assesses how well packaging materials integrate with existing recycling systems. This testing is crucial for understanding how these materials behave in recycling processes, identifying potential challenges, and confirming their compatibility with industry standards. It evaluates whether materials can be effectively reprocessed into new products, ensuring they meet technical specifications and are clean, contaminant-free, and suitable for existing recycling technologies like those used in paper mills or plastic reprocessors.



End Markets

Is there strong demand for the recycled package’s material to be used to manufacture new products?

A key factor in recycling is the existence of a viable end market for the recycled material. This criterion evaluates the demand for the recycled content that can be recovered from the package. High demand for the recycled material enhances the chances that it will be utilized in the production of new products. Conversely, if the recycled material lacks a robust market or is challenging to sell, the package may not be deemed truly recyclable, even if the material can be processed technically.



Consumer Experience & Perception

How do consumers interact with the package? How easy is it for consumers to recycle this package?

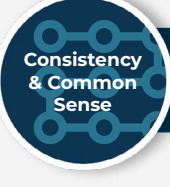
Evaluating the user-friendliness of a package from a recycling perspective involves examining whether consumers can easily understand the recycling instructions, the effort required to prepare the package for recycling (such as cleaning or separating components), and if the recycling process aligns with common consumer behaviors. If a package is overly complicated or inconvenient to recycle, consumers may be less likely to follow through, which can reduce its effective recyclability.



Material Health

Does the package contain intentionally added substances that are harmful or potentially harmful to the environment and/or human or nonhuman animal health?

Safety of the materials used in the package is a key consideration. The assessment looks for harmful chemicals, additives, or contaminants that could pose risks to human health, animal life, or the environment during recycling. Materials with toxic substances may require special handling or disposal, which can limit their recyclability. Packaging that is known or suspected to present health or safety risks is not suitable for recycling and, therefore, circularity.



Consistency & Common Sense

Is the package recyclability assessment consistent with those of similar product categories?

Consistency in recyclability assessments across similar product categories and packaging types is essential. This involves evaluating whether the recycling instructions and guidelines provided to consumers are logical, practical, and straightforward. Clear and sensible labeling helps consumers easily understand how to recycle the package, reducing confusion and increasing the likelihood of proper recycling.



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How2Recycle®



GreenBlue is an environmental nonprofit dedicated to the sustainable use of materials in society. We bring together a diversity of stakeholders to encourage innovation and best practices to promote the creation of a more sustainable materials economy.

How2Recycle® is a standardized labeling system that clearly communicates disposal instructions to the public. We aim to eliminate consumer confusion and drive responsible packaging design to improve the quality of recycled materials.

Our coalition of forward thinking brand, manufacturer, and converter members are empowering consumers through awareness and transparency around proper disposal. How2Recycle® is a trademark project of GreenBlue Org.

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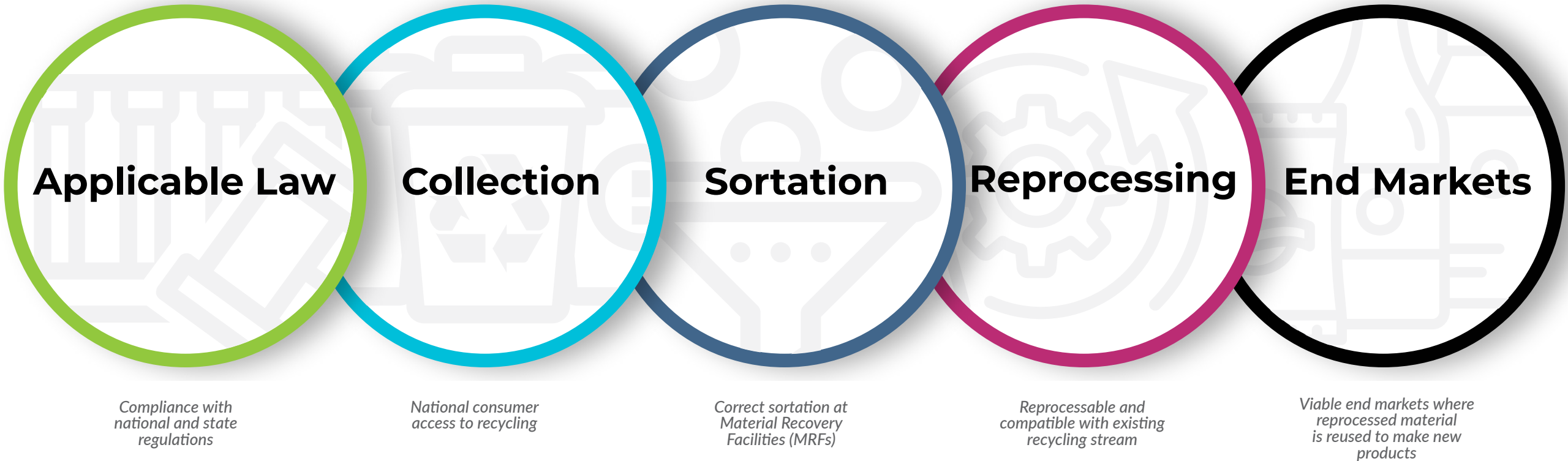
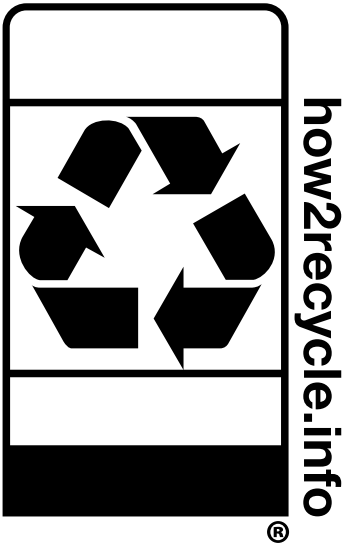
INTRODUCTION

This document offers a comprehensive evaluation to determine the recyclability of a package’s material and format based on current data and applicable law. Numerous factors influence overall recyclability, and the recycling landscape continues to evolve. Therefore, additional data and further evaluation may be required to ensure accuracy and relevance.

Please note that this evaluation may not be an exhaustive list of all factors affecting recyclability. Ongoing research and updates are essential to keep pace with industry developments and regulatory changes, ensuring that all relevant aspects are considered in the assessment process. This document is dynamic and may be updated as new information or other factors emerge.

When assessing product recyclability, How2Recycle® considers several critical elements, including applicable law, collection, sortation, reprocessing, and end markets (see image below). For a comprehensive understanding of recyclability criteria and label assignment process, please refer to [Guide to Recyclability](#). In addition to these core elements, How2Recycle evaluates other factors such as [consumer preparation of packaging](#) and [material health](#). [The Guide to Future Recyclability](#) offers further insights into addressing packaging challenges and building a robust case for recyclability. These resources provide essential guidance and strategies to navigate the evolving landscape of recyclability and support the development of sustainable packaging solutions.

How2Recycle
Definition of
Recyclability



Consistency, Common Sense, Consumer Experience, Material Health

EVALUATION CONDITIONS

How2Recycle team members conduct recyclability assessment analysis using the latest data available to the program. Data owned by GreenBlue and audited external data supplied by How2Recycle members, trusted partners, industry associations, and third-party labs may be referenced. Recyclability is complex and dynamic; therefore, this evaluation is subject to change.

What does the law say about recyclability claims?

Applicable law is a foundational aspect of How2Recycle's recyclability assessment, and the program will adapt to ensure that its labels comply with all current laws. How2Recycle considers both existing and emerging policies to ensure that legally sound claims are provided to members, avoiding misleading information for consumers and advancing the goal of clarity in on-pack labeling.



United States

- The How2Recycle label was designed to comply with the Federal Trade Commission (FTC) "Green Guides."
- GreenBlue provided comments in response to the [FTC's request for comments](#).
- How2Recycle is monitoring emerging state-level legislation, such as CA SB343, and will adapt to ensure compliance with this and other state regulations governing on-pack labeling, recyclability, and compostability claims.



Canada

- The label was designed to comply with the Competition Bureau Canada's Enforcement Guidelines.
- GreenBlue provided comments on the new regulatory framework drafted by the Environment and [Climate Change Canada \(ECCC\)](#).
- How2Recycle will also adapt as needed to comply with province and territory level regulations, such as Quebec's Charter of the French Language.



For PE flexible packages collected through Store Drop-off

- Current data suggests that over 60% of the U.S. population has access to recycling PE flexible packaging through Store Drop-off programs. However, transparency is limited, and robust auditing mechanisms to validate actual consumer access are lacking. To address this, the SPC Flexible Recovery Collaborative partnered with RRS to gather more accurate data on access to recycling PE film and flexible packaging across the U.S. How2Recycle plans to base future access-to-recycling assessments on this new data once it is published.
- Although the majority of consumer-facing PE flexibles are collected through Store Drop-off programs, retailers and other collection points have expressed significant concerns regarding safety hazards associated with the collection, storage, and transportation of these packages, particularly when they contain product residue. These hazards include issues such as unpleasant odors, mold growth, pest infestations, and potential risks to employee safety. In response, How2Recycle is working closely with the APR Clean & Dry Working Group to quantify the extent of this residue, evaluate its impact on retail environments, and develop guidelines to ensure safety and recycling effectiveness.
- How2Recycle is also collaborating with SPC to gain a deeper understanding of retailers' collection practices and to address concerns related to product residue. Efforts were made to survey retailers about their evolving perspectives on the impact of residue in their film collection bins. However, the response rate was insufficient to draw definitive conclusions, highlighting the need for further research and engagement with retailers to effectively address these issues.
- It is also important to evaluate whether signage and communication methods at Store Drop-off locations effectively inform consumers that PE flexible packaging can be recycled there. Ensuring clear and consistent messaging is key to maximizing consumer participation and the overall effectiveness of these recycling programs.

Collection

Other considerations

How2Recycle takes the following additional considerations into account when evaluating access data. However, this is not an exhaustive list, as every packaging material and format may present different types of challenges:

1. **Acceptance in Community Guidelines:** How2Recycle considers whether the package is explicitly or implicitly accepted or prohibited in community-facing language.
2. **Clarity of Program Guidelines:** How2Recycle evaluates whether the program guidelines are contradictory or ambiguous for this package.
3. **Inconclusive Access Data:** How2Recycle assesses whether the access to recycling of this package is conclusive based on available studies. If inconclusive, How2Recycle considers other indirect measures that may represent access to recycling this package. In such cases, members should refer to [this document](#) for guidance on how How2Recycle interprets and assesses recyclability under these conditions.
4. **Collection at scale:** Materials that do not have any collection at scale, such as borosilicate glass and polystyrene packaging, cannot be considered recyclable.
5. **Product Specific Limitation:** Specific product applications may limit the access to recycling for a particular package material and format.

What percentage of the population has access to recycle this package in their community?



- At least 60%* of the population must have access to recycle this package in their community, either via drop-off or curbside recycling, for it to be eligible for a Widely Recyclable or Store Drop-off (for PE flexibles only) label.
- At least 20%* of the population must have access to recycle this package in their community, either via drop-off or curbside recycling, for it to be eligible for a Check Locally label.
- How2Recycle uses The Recycling Partnership's Community Recycling Program Acceptance Data to assess the population's access to recycling for specific materials and formats within their community.
- How2Recycle welcomes other credible third-party verified access data for review.



- At least 50%* of the population must have access to recycle this package in their community, either via depot or curbside recycling, for it to be eligible for a Widely Recyclable label.
- At least 20%* of the population must have access to recycle this package in their community, either via depot or curbside recycling, for it to be eligible for a Check Locally label.
- How2Recycle utilizes CM Consulting 2023 report "Access to Residential Recycling of Packaging and Packaging Material in Canada" to assess the population's access to recycling for specific materials and formats within their community.
- How2Recycle welcomes other credible third-party verified access data for review.

* Not including the margin of error

Will the package be properly and consistently sorted (dimensionality, rigidity, etc.) in a material recovery facility (MRF) or recycling center?

The APR sorting potential test methods are intended to identify specific design features that may cause an entire package to be lost in the recycling process. Additional testing or data may be required to assess sortation of package formats that are not covered by existing protocols.

Size

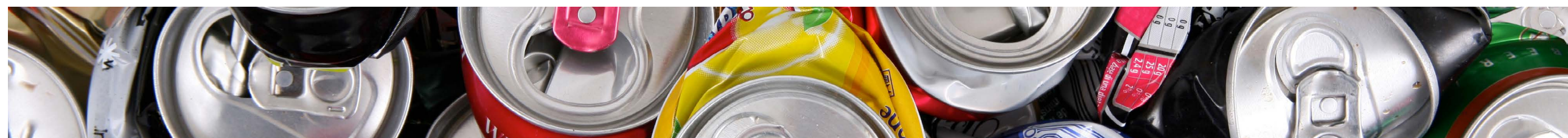
- The package must meet the size requirements to be successfully sorted at a MRF. Packaging that fails to meet these minimum size requirements may not be correctly sorted into the appropriate bale. Instead, it could be rejected as residue or contaminant and sent to landfills. This applies to paper and paperboard, rigid plastic, and metal packaging.
- There is no size requirement for PE film and flexible packaging as they are collected via a different stream (e.g., store drop-off locations).
- Packaging that has a non-compliant small size or dimensionality must undergo the APR Size Sort Potential test ([SORT-S-02](#)) to demonstrate that it will correctly pass over a screen without falling through and becoming residue.
- Large-sized packages may also be difficult to recover properly at a MRF. Very long and rigid tubes could present safety concerns to workers and create issues on automated sorting lines. Additionally, large items like buckets may need to be manually sorted.

Shape

- 2D/3D sortation machinery separates paper from containers: light, thin packaging moves well uphill, while heavier, three-dimensional packaging tends to fall downhill, resulting in separation. The most critical factor for 2D/3D separation is the height of the package when laying flat, which is typically the smallest overall dimension. According to APR tests, containers with a compressed dimension greater than 2 inches (5 cm) are unlikely to be missorted into the 2D stream.
- For rigid plastics, packages that are too flat and more 2D than 3D may not successfully sort to the plastic containers line at a MRF.
- For paper, packages that are too bulky and more 3D than 2D may not successfully sort to the paper line at a MRF. In general, mixed paper packages should be flat to be properly sorted. Certain paper formats like aseptic cartons are uniquely able to maintain their dimension and be captured from the containers line.
- Rigid plastic packaging that is too flat or paper packaging that is overly bulky must be evaluated using the APR 2D/3D Sorting Potential test ([SORT-S-05](#)) to ensure proper sorting into the appropriate stream at MRFs.

Material construction & Dark colored rigids

- Plastic packaging is sorted using NIR (near-infrared) technology, which identifies and directs the material to the correct recycling stream. However, if packaging is not properly sorted, it may contaminate other recyclables or end up in the waste stream.
- Issues arise when plastic packaging has a large surface area label or closure made from a different resin than the main packaging (e.g., a PET bottle with a PP label or an HDPE tub with a PP lid). The NIR system may misidentify and missort the package based on the resin of the label or closure instead of the body resin. Additionally, black or dark-colored rigid plastic packaging is challenging because black colorants absorb light, making it difficult for NIR sensors to detect, which can lead to missorting or directing them to waste.
- To ensure accurate sorting, packaging with these features must pass the NIR Sortation Potential test ([SORT-S-01](#)). Packaging that fails this test or is not tested will receive a “Not Yet Recyclable” label.
- For black-colored plastics, it is essential to use “sortable black resin” and pass the NIR Sortation Potential test to meet sorting criteria. This requirement does not apply if only the closure is black or darkly colored. Similarly, very dark-colored rigid plastics, specifically those with an NIR reflectance of 10 or less or an L value below 40, must also undergo the NIR Sortation Potential test to confirm they meet sorting criteria.



Metal components and attachments

- Metal is a common contaminant in plastics recycling. Many plastic packages have metal components like caps, springs, and RFID tags. Residual metal must be removed to prevent machinery damage and quality issues in the final product. Metal contamination is especially problematic in post-consumer recycled (PCR) plastic because it can cause significant reprocessing problems.
- The APR test method provides a means for evaluating whether a metal containing plastic article will pass correctly through the MRF and plastic reclaimers' metal separation process. Items containing ferrous metal are subject to a magnetic test protocol. All metallic items are subject to a metal detection protocol.
- Plastic packaging with metal components or features, such as metallized film, foil stamps, or metallic inks, that exceed the allowable maximum surface area specified in the [APR Metal Decoration Resource Document](#) must undergo the Metal Sortation Potential test ([SORT-S-03](#)). Accurate sorting is crucial, as missorted plastic articles with metal are removed from the recycling stream along with the metal, leading to yield loss for the reclaimer and wasted plastic.

Other package attributes

- Consider if the package is an innovative format or resembles formats that have historically been problematic and may still be viewed as contamination within a MRF. Confirm if MRFs or reclaimers are likely to remove this item during sortation or from bales as part of the quality control process.

MRF sortation studies

When conducting MRF sortation study, consider the following:

1. *Determination of Sortation Potential Without Established Protocols: If existing sortation protocols are not applicable or suitable for a new, innovative material or format, the sortation potential can be assessed through MRF sortation studies. These studies help evaluate the practical effectiveness of sorting the package.*
2. *Third-Party Expertise in MRF Sortation Studies: The MRF sortation study should be conducted by a third-party entity with expertise in executing and analyzing MRF sortation studies. This ensures the reliability and accuracy of the results.*
3. *Representativeness of the Testing MRF: The MRF used for testing must be representative of the majority of MRFs that handle this type of package. It is also important to consider whether the MRF employs outdated technology or state-of-the-art systems, as this can impact the relevance of the findings.*
4. *Consistency in Sorting to Target Bale: The package should consistently flow to the appropriate target bale throughout the sorting process. This ensures that the package is directed to the correct recycling stream reliably.*

Will the package be successfully reprocessed at paper mills, plastic reclaimers, film recyclers, etc.? Is the package technically recyclable based on current protocols and industry standards?

The purpose of technical recyclability testing is to assess the compatibility of innovative packaging or packaging components with existing recycling systems. This testing is essential when the recyclability of new or modified materials is uncertain or when there is a significant lack of data on how these materials behave in the recycling process. Conducting these tests helps identify potential challenges or confirm that the packaging can be successfully recycled without causing issues in the recycling stream. This ensures that the packaging meets industry standards for recyclability.

Reprocessing



Plastic packaging

- APR Design® for Recyclability Recognition Program offers three pathways to recognition: Preferred Design, Critical Guidance, and Responsible Innovation. Each pathway has its own test and review criteria, but all lead to the same level of recognition. This recognition signifies that a product has met the [APR Design Guide's](#) highest criteria for recyclability. The program is designed to recognize and incentivize manufacturers for their efforts in addressing recycling challenges and replacing problematic items. It can also assist brands and retailers in saving time, money, and resources when researching recyclable packaging options.
- For packaging that can be evaluated using lab-scale methods, APR offers Critical Guidance Protocols tailored to specific packaging resins. Successfully passing the test demonstrates that the innovative packaging or its components can be seamlessly reprocessed within the existing recycling system, without causing any disruptions or complications.
 - [PET & PET with label and closure](#)
 - [HDPE](#)
 - [PP](#)
 - [PE Film and Flexible](#)
- The float/sink test is a crucial step in plastic reprocessing, especially for PET and polyolefin materials. This test determines how different packaging components behave in water, facilitating effective separation. For [PET](#), which sinks, it's essential that non-compatible materials like labels and closures float to allow easy separation. In the case of [rigid and flexible olefin](#) articles, the test ensures that non-olefin materials sink, enabling clean separation. This process ensures that the desired plastic is cleanly isolated from other components, preserving the integrity and quality of the recycled material. If a plastic package has attachments like labels or closures that remain with the main container through the sink/float step, they may be detrimental to recycling the entire container (i.e. PS label on PET).

Paper packaging

- Fiber-based packaging that does not currently qualify for a positive recyclability claim must undergo comprehensive technical recyclability testing according to the OCC-E or SBS-E protocols. The protocol includes two parts: repulpability (Part 1) and recyclability (Part 2). The choice of protocol depends on the fiber substrate used in the packaging; bleached fiber requires testing under the SBS-E protocol, while unbleached (brown) fiber is tested using the OCC-E protocol.
- Contact the following lab for detailed OCC-E test protocol:
 - [Western Michigan University; Lon Pschigoda, lon.pschigoda@wmich.edu](#)
 - [University of Wisconsin-Stevens Point; Paul Fowler, pfowler@uwsp.edu](#)
 - [Innofibre; Gaston Michaud, gaston.michaud@cegeptr.qc.ca](#)
- Contact the following lab for detailed SBS-E protocol:
 - [Western Michigan University; Lon Pschigoda, lon.pschigoda@wmich.edu](#)
- The AF&PA published [design guidance for recyclability](#) intended as an informative resource, not as a mandatory standard or requirement for the packaging industry. This guidance serves as a valuable tool for individuals and organizations involved in specifying and designing packaging, helping them create solutions that better align with customers' recycling needs.

Product application

- Certain products can render a package as Not Yet Recyclable due to their inherent characteristic or the residue they leave behind. This includes hazardous or potentially hazardous products such as medical waste, pesticides & herbicides, flammable materials, raw meat, chemicals, paint, etc.
- Residue from products can also compromise the recyclability of the package. For example, film and flexible packages contaminated with wet, sticky, gooey, or oily residues can negatively affect material reprocessing. Similarly, paper packages with significant residue such as lasagna, greasy or saucy foods, ice cream, or liquid products, can negatively affect the operations of recycling mills, leading to reduced yield and lower final product quality.
- Testing with product residue in the packaging is critical to understanding its impact on material reprocessing. This evaluation reveals how different residues could affect recycling effectiveness, helping to identify potential issues and develop strategies to address them.
- How2Recycle is open to evaluating third-party verified and objective test results on the effect of product residue on material reprocessing. This approach ensures that assessments are based on reliable data, leading to more accurate and actionable recyclability claims.

Other considerations

- If it is unclear whether the package is technically recyclable, it is important to determine if the package has support from the majority of recyclers, reclaimers, or industry groups representing recyclers.



Is there strong demand for the recycled package's material to be used to manufacture new products?

How2Recycle considers the strength of the end market based on several elements to determine what label a package is eligible for. Widely Recyclable packages must have strong end markets. Check Locally recyclable packages must have at least moderate strength end markets. Packages with no or negligible end markets may only be deemed as Not Yet Recyclable. Additionally, How2Recycle considers whether the end market is responsible or not. If a responsible end market does not exist for a package or material, it cannot be labeled as recyclable.

In addition to the end market categories, materials that are collected for recycling but are predominantly sent to landfill, incineration, or waste-to-energy are not eligible for unqualified recyclability claims (such as Widely Recyclable or Store Drop-Off). If a material is extensively processed in this manner, it will not qualify for any recyclability claim and will receive a "Not Yet Recyclable" label.

Defining End Market Categories [\(link\)](#)

- **Strong End Markets:** Require explicit acceptance in bale specifications, significant recycling capacity, positive value, and a history of stability.
- **Moderate Strength End Markets:** Include packages accepted or reasonably expected in bale specifications, with moderate recycling capacity and positive value over time.
- **None or Negligible End Markets:** Cover packages with unclear acceptance, significant downgrade risk, or recycled at low or negative value.

Key Factors in End Market Assessment

- **Demand:** The extent to which the recycling industry seeks the material.
- **Scale:** The volume at which the material is recycled.
- **Value:** The material's value and market value.
- **Time:** The consistency of the material's value over time.

Considerations

- **Bale Specifications Acceptance:** Consider whether the package format is implicitly or explicitly accepted or prohibited according to established bale specifications, such as those defined by ISRI and APR model bale specifications. Explicit acceptance indicates strong demand for the material and a robust end market, while explicit prohibition suggests no end market, leading to potential landfilling or incineration. Similarly, implicit acceptance suggests moderate demand and the existence of an end market, although not as strong as those with explicit acceptance. Implicit prohibition indicates a lack of demand and a weak or nonexistent end market, making the material less likely to be recycled and more likely to contribute to waste.
- **Impact on Bale Value:** It is important to consider whether the package format enhances or diminishes the value of the bale when included as well as the availability of eligible recyclers who can sort and sell the relevant bales at scale to most regions. If there is significant recycling capacity for this material, determine whether end markets are purchasing the material in meaningful volumes.
- **End Market Responsibility:** Materials must be recovered by the end market in a way that avoids health or safety risks to the environment or recycling workers. Expert or media reports on the post-collection fate of the material, such as landfilling or incineration, will also be considered.
- **Financial Considerations:** Financial aspects, such as whether the average national bale price remains above \$0 or is adequately managed by MRFs or governmental entities through extended producer responsibility (EPR) or other legislation, are equally significant. The trend of bale prices over the past two years provides insight into market stability, and it is important to monitor whether the bale's value is expected to increase or decrease beyond typical market fluctuations. The interest or capacity of reclaimers to process this material is a good indicator of overall demand and the viability of the end market.

End Markets

How do consumers interact with the package? How easy is it for consumers to recycle this package?

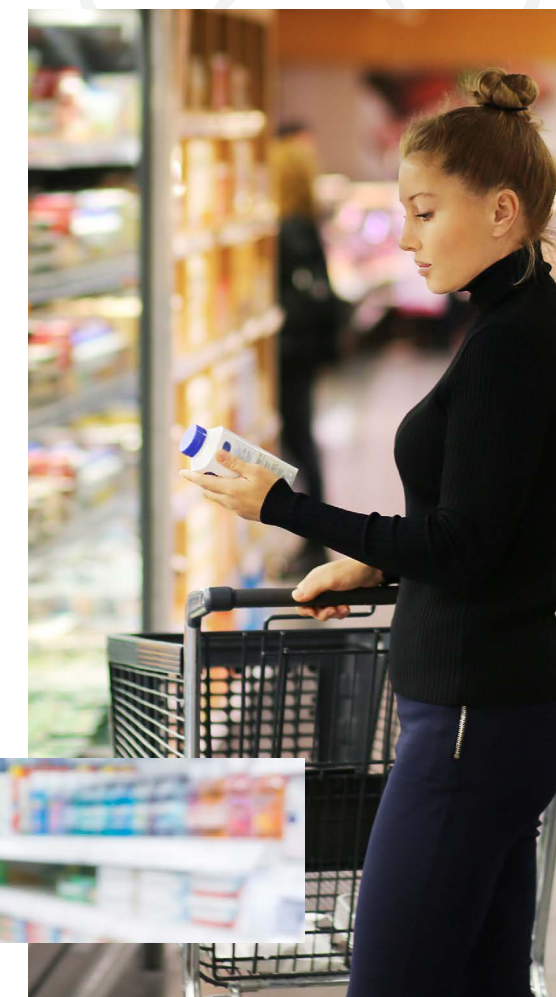
How2Recycle evaluates consumer convenience when assessing how easy it is to prepare a package for correct recycling. **Consumers should not be expected to follow complex instructions or take excessive steps to recycle a package.**

Good packaging design should minimize the need for consumer action, ideally requiring no material separation. If separation is necessary, it should be simple, require minimal effort, and be easily understood by all consumers. The goal is to ensure that packaging is designed in a way that maximizes recyclability and reduces contamination in the recycling stream.

Preparation instruction considerations

- **Consumer-Friendly Actions:** Actions that are widely recognized and commonly practiced by consumers, such as flattening boxes and rinsing glass jars or milk jugs, are deemed reasonable and acceptable. However, if preparing the package requires the use of special tools, significant dexterity, notable force, or extra patience, How2Recycle considers this unreasonable, and the package will be labeled as "Not Yet Recyclable." Additionally, any preparation process that poses safety concerns for consumers may render the package unsuitable for recycling.
- **Material Separation Instructions:** When packaging components of different materials need to be separated before recycling—such as blister packs, boxes with plastic windows, shrink sleeve labels, or bottles with high-coverage paper labels—it is critical that these instructions are clear and understandable.
- **Clean & Dry Requirements:** For recycling streams that require packages be clean and dry, the ease of achieving this cleanliness is crucial. How2Recycle may consider special instructions requested by members as unreasonable if they significantly complicate the process. For example, How2Recycle does not require rinsing polyethylene (PE) films or paper-based packaging to remove product residue. How2Recycle is open to reviewing any consumer studies that members have conducted regarding consumer behavior related to rinsing these types of packaging, including changes in consumer behavior, perception, or reception of such ideas.
- **Impact of Incorrect Preparation:** It is also important to assess the potential impact on the recycling stream if consumers do not follow preparation instructions. Sortation or reprocessing issues may arise if the package is incorrectly prepared, leading to contamination or inefficiencies in the recycling process.

Consumer Experience & Perception





Does the package contain intentionally added substances that are harmful or potentially harmful to the environment and/or human or nonhuman animal health?

Effective July 31, 2021, [How2Recycle introduced new criteria](#) that allow material health considerations to influence recyclability claims. This new rule means that packaging containing substances harmful or potentially harmful to the environment or human health could be labeled as “Not Yet Recyclable.” The decision reflects a broader commitment to sustainability, ensuring that materials harmful to circularity are not endorsed by the program.



Biodegradability Additives

- How2Recycle considers packaging with biodegradable additives or components as unsuitable for the recycling stream and classifies such packaging as “Not Yet Recyclable.” This stance is based on the current limitations and potential complications that biodegradable materials can pose to the recycling process. For further insight into the position on degradability and biodegradable packaging, refer to SPC’s position statements. These documents provide detailed explanations of the challenges and considerations associated with these materials in the context of sustainable packaging.

- [SPC Position Statement on Degradability Additives](#)
- [SPC Position Statement on Biodegradable Packaging](#)

PFAS

- How2Recycle labels packaging that contains intentionally added per- and polyfluoroalkyl substances, or PFAS, as “Not Yet Recyclable.”
- For paper-based packaging intended for direct food contact that uses a functional barrier coating, How2Recycle team may require Total Organic Fluorine (TOF) testing to confirm that PFAS is either not present or below 100 ppm.
- For plastic packaging, the use of PFAS should be minimized and eventually phased out in favor of safer alternatives to prevent the introduction of environmentally persistent hazardous chemicals into the recycling stream.
- How2Recycle will continue to monitor PFAS use in packaging and the development of safer alternatives, with the possibility of future updates to this policy.

Other considerations

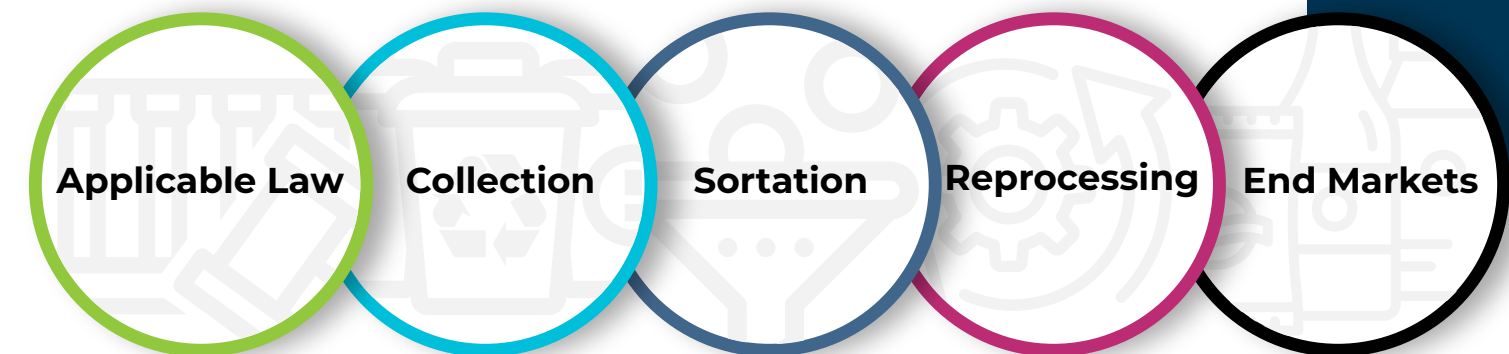
- Assess whether the production or reprocessing of the material is known or suspected to create ecological or health concerns.
- Evaluate if the product within the package presents a human health or safety concern, including the possibility of introducing a biological, chemical, or other hazards that may pose a risk.
- Consider whether the package or its contents pose a fire hazard to haulers and MRFs, especially if the product is highly flammable.

Is the package recyclability assessment consistent with those of similar product categories? Does the How2Recycle label provide clear and practical guidance to consumers on how to recycle?

How2Recycle ensures that its recyclability assessments are consistent across similar product categories, focusing exclusively on items within the program’s scope, specifically consumer-facing packaging. The program does not evaluate products outside its objectives, such as business-to-business (B2B) packaging, industrial items, or hazardous materials. In its assessments, How2Recycle also considers factors that may make a package unacceptable for the recycling system.

To provide clear and practical guidance to consumers, the How2Recycle label is designed with understandable instructions that align with common recycling practices. By incorporating consumer perspectives, How2Recycle ensures that the labels offer sensible and actionable advice, thereby maintaining consistency and clarity in its recyclability assessments.

Consistency & Common Sense



Consistency, Common Sense, Consumer Experience, Material Health

Conclusion

The recyclability of packaging is a complex, multifaceted issue, shaped by various factors including applicable laws, collection, sortation, reprocessing, and end markets, among others. The recycling landscape is constantly evolving and members are encouraged to utilize this document as a foundational resource while staying up to date on How2Recycle’s program guidelines. Given the dynamic nature of recycling systems and regulatory changes, ongoing research and adjustments to packaging strategies are critical. Keeping informed and adapting to these changes ensures packaging aligns with industry standards and is optimally designed for recycling within the existing infrastructure.

