Responsible Procurement Guide for Cannabis Packaging

For the purchasing teams of suppliers of the Société québécoise du cannabis

Updated: September 2024

Éco Entreprises Québec

SQDC

Éco Entreprises Québec

Since 2005, Éco Entreprises Québec (ÉEQ), a private non-profit organization, has represented producers that put containers, packaging and printed paper on the market regarding their financial responsibilities for curbside recycling.

Designated as a producer responsibility organization (PRO) in 2022, ÉEQ manages the curbside recycling system in Québec from a sustainable development perspective.

As a leader in extended producer responsibility (EPR), ÉEQ develops, manages and provides circular economy solutions to its member producers so they can reduce their environmental footprint. ÉEQ places eco-design, recyclability and traceability at the core of all actions with its partners.

ÉEQ will continue its role as the designated producer responsibility organization throughout the transition of the compensation plan to EPR.

Contents

This guide is a joint production of the ÉEQ and the SQDC.

Published with the authorization of Éco Entreprises Québec, 2024.

Introduction

In the booming cannabis industry, innovation and social responsibility increasingly go hand in hand.

This guide is designed for you, the purchasing teams of the suppliers of the Société québécoise du cannabis (SQDC). It aims to help you find your way around the complex field of responsible procurement for packaging. Adopting an eco-design approach today helps us meet current industry needs and prepares us for future sustainability standards.

The guide begins with an introduction to the eco-design process. It gives you the tools you need to understand the basic principles of the process, which aims to minimize the environmental impact of a product and its packaging throughout their life cycles. We then explore good recyclability practices, which are key to improving reintegration of packaging materials into the value chain. You will learn how various types of packaging can be optimized to make them easier to recycle, potentially reducing your products' environmental footprint.

We also provide concrete examples of good practices that go beyond the recyclability threshold. These include, among other things, incorporating recycled content, reducing the amount of materials used, and responsible communication.

The legal framework applicable to packaging is another crucial aspect discussed in this guide.

Lastly, we highlight the eco-responsible criteria currently in effect at the SQDC and the company's social responsibility process. The criteria grow out of our commitment to adopt business practices that favour community well-being and environmental preservation. By publishing this guide and the various concepts covered in it, we are affirming our leadership role in promoting a sustainable and socially responsible cannabis industry.

This guide is more than a simple manual. It is a call for all of us to be packaging practice pioneers in the cannabis industry. Together, we can shape a future in which cannabis is appreciated not only for its qualities but also for how it is packaged for consumers.

Introduction to the eco-design process

1

1 Introduction to the eco-design process

Definition

In practical terms, eco-design is a holistic process characterized by taking environmental, social and economic criteria into account when designing packaging while also maintaining the packaging's use value (roles and functions).

Eco-design applies equally to the selection of packaging, the improvement of existing packaging and the design of new packaging. It is also a value-generating process that takes repurposing and reuse approaches into account and provides an opportunity for rethinking the place occupied by single-use packaging in society.

To switch to better performing packaging while avoiding any transfer of impacts (packaging that weighs less but isn't recyclable, for example), companies can look to eco-design, which has the potential to reduce packaging's impact on the environment throughout its life cycle.

Why eco-design?

While eager to embrace sustainability, the cannabis industry may face challenges in implementing eco-design processes. The challenges may be related to regulations, specifically those of Health Canada, to the lack of financial and human resources or to the need to make major changes to production equipment to accommodate changes to packaging.

Nonetheless, the numerous competitive, reputational, economic, social, and environmental benefits are driving the adoption of eco-design within the industry. These can include improved control of overall packaging costs by reducing the quantity of materials necessary to produce a given packaging item, which also optimizes transportation and storage (lower product weight, improved stacking, etc.).

1 Introduction to the eco-design process

Life-cycle thinking and compromise management

For the time being, achieving a completely neutral environmental impact in packaging remains an unattainable goal. Whether it's made entirely from paper, incorporates post-consumer recycled plastic or is recyclable, every piece of packaging has an environmental footprint. The eco-design process helps us better understand the footprint because it provides an overview of the various stages in the packaging's life cycle. This is called "life-cycle thinking."

The following diagram illustrates the various stages in the life cycle of a packaging product →

Procurement and transformation of raw materials

This stage includes all the processes and technologies used to extract, develop and transform raw materials. For example, it could involve mining minerals used to make iron and aluminum, using wood waste to make paper and cardboard or transforming petroleum by-products into plastic.

Manufacturing

This stage includes the processes and technology used to manufacture packaging and to assemble and package products (for example, thermoforming a container or the techniques for filling containers and applying the label and closure system).

Distribution

For storing, handling and shipping packaged products, it is essential to consider the distances to be travelled, the means of transpiration used, the energy sources required and the infrastructure and space devoted to storage.

Product use

The environmental impacts, including the water and energy necessary to use the product, are taken into account in this stage.

End-of-life management

The end-of-life stage includes various actions such as repurposing, reuse, recycling, composting, valorization and elimination. When a packaging item reaches the end of its life that does not necessarily mean the item – or, at the very least, the materials it is made from – have reached the end of their useful life. For example, to evaluate the recyclability of a given packaging item, the processes and technologies involved in collecting, sorting, valorization and recycling it must all be taken into account.

1 Introduction to the eco-design process

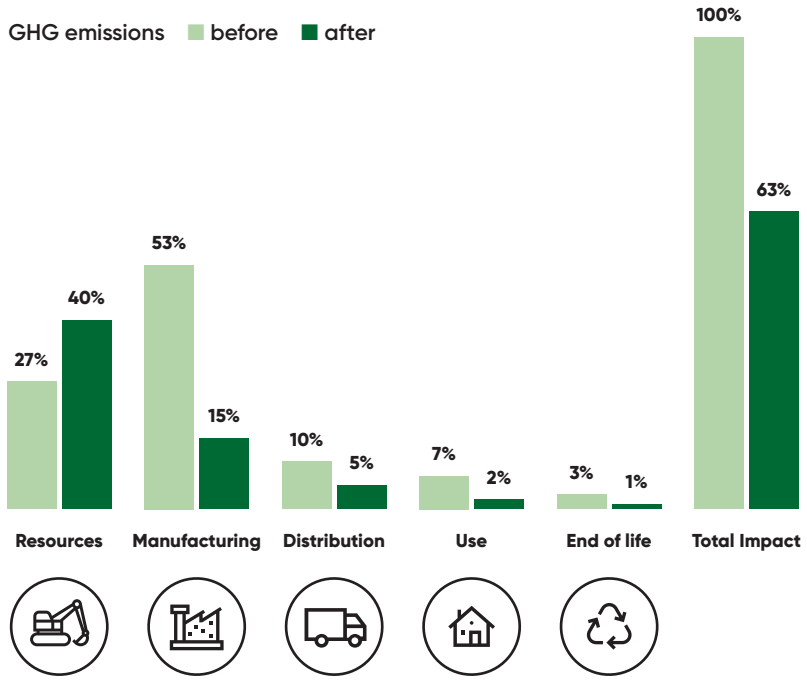
Life-cycle thinking and compromise management

Having a systemic vision of packaging and a clear understanding of the ecosystem make it possible to avoid transferring the environmental impacts from one stage of the life cycle to another. The following chart provides an example of the impact transfers potentially resulting from the eco-design (optimization) of a packaging item. It shows that the "after" is preferred at the manufacturing stage but also involves more greenhouse gas (GHG) emissions at the resource extraction stage. The "after" solution has the lower overall impact, however.

Combining life-cycle thinking with the eco-design approach requires juggling a number of factors and criteria. **Compromise management** is the process of taking action paths and optimization opportunities into account while preserving the use and packaging functions,

To go even further, life-cycle assessment (LCA) offers a more comprehensive methodology. It involves identifying and measuring the environmental impacts of a product or process over its entire life cycle. Carrying out an LCA is based on the main steps defined by the ISO 140404 standard. The results of an LCA can help prioritize the actions to take while ensuring that improvements made at one stage in the life cycle of a packaging item do not have a larger indirect impact on subsequent stages.

Example of the potential impacts of carbon balance transfers resulting from the eco-design of a packaging item



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Though packaging is often blamed, the product per se often has a bigger environmental impact. That is why it is important to think of packaging and product as a whole.

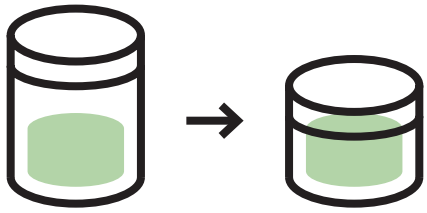
1 Introduction to the eco-design process

Eco-design strategies

Reduction, procurement and recyclability are the three main eco-design strategies for packaging and printed paper. These three strategies propose several actions for improving, orienting, selecting or launching an eco-design process for packaging or printed paper.

→ Reduction

Reduction is a move toward ideal packaging, one that is adequate, effective and designed with a minimum of material while keeping only the functions essential for the product or the user.



Reduction involves the following actions:

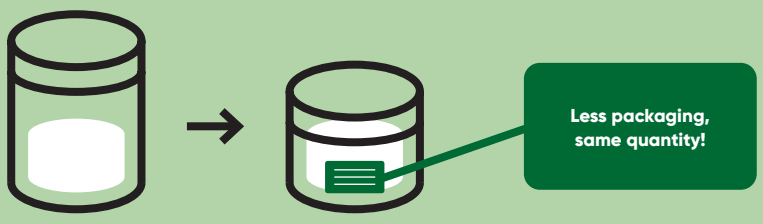
→ **improve the product-to-package ratio** by reducing the weight and volume of the primary, secondary and tertiary packaging; and

Reminder: the SQDC has established maximum packaging weight limits for each product category.

→ **through eco-inking, reduce the amount of ink used** by optimizing the surface area coverage, graphics and fonts and by not printing on non-visible surfaces.

Inform consumers about the reduced packaging in accordance with the ISO 14021 standard, which applies to self-declared environmental claims. Under the standard, specific claims must, among other things, be based on accurate, non-misleading, substantiated and verified data that can be checked on demand.

Example 1:



Example 2: "Our new container uses 17% less plastic than the one it replaces and manufacturing it emits 38% less greenhouse gases. Something to be proud of!"

Eco-design strategies

→ Procurement

Focusing on your procurement will help you better understand what the packaging is made of. It also encourages traceability and transparency when it comes to controlling the origin of the materials.

Procurement is based on the following actions:

→ **incorporate recycled content**, ideally post-consumer instead of post-industrial content, to give new life to recovered materials, avoid the impacts of virgin raw material extraction and increase demand for recycled materials;

> **Reminder: incorporating at least 15% recycled content is one of the SQDC's four eco-responsibility criteria for the packaging of the products it sells.**

→ **eliminate the use of substances recognized as toxic, harmful or hazardous** (PFAS and BPA, for example) by requiring data on material composition, formulations and components at every stage of the supply chain;

→ **favour local procurement** by evaluating the source of the materials and drawing up a list of suppliers. The manufacturing industry based in Québec and nearby areas has several advantages: encouraging the local economy; shorter shipping distances; better traceability of materials in the supply chain; and compliance with Québec and Canadian laws and standards;

> **Reminder: the SQDC defines local procurement as involving a distance of less than 1,750 km between the packaging manufacturer and the cannabis producer.**

→ **choose suppliers with eco-responsibility practices** such as sustainability commitments (ESG indicators, responsible procurement, energy efficiency and social objectives, for example) or environmental certifications (ICI on recycle+, LEED, ISO, B Corp, etc.); and

→ **make sure the materials come from sustainable, renewable and local sources** that are certified (e.g. FSC for fibres) and respectful of workers' rights and work conditions.

Inform consumers about your responsible procurement practices using, among other things, environmental labelling governed by a recognized certification program. The labelling indicates that pre-established requirements have been met and the claimed performance has been verified by an independent third party.

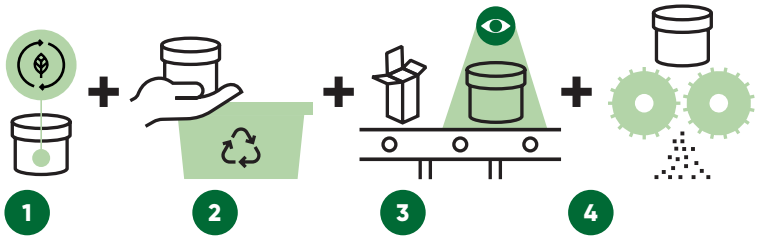
Eco-design strategies

→ Recyclability

Integrating end-of-life value maximization into the design stage is crucial for sustainable packaging solutions. By taking into account your packaging's potential recyclability and compatibility with the pick-up and recycling infrastructures currently in place, you give it a second life. →

Reminder: the SQDC's eco-responsibility criteria include recyclability and specifying that evaluation is to be based on the packaging's compatibility with the Québec sorting and recycling system.

→ For a packaging item to be successfully recycled, **four conditions must be met**:



1. It has to be eco-designed
2. It has to be collected from a recovery/ recycling bin (a step dependent on citizen participation in the sorting process)
3. It has to be sorted at a sorting centre
4. It has to be recycled through an established market

→ **The actions involved in this strategy are detailed in the next section of this guide.**

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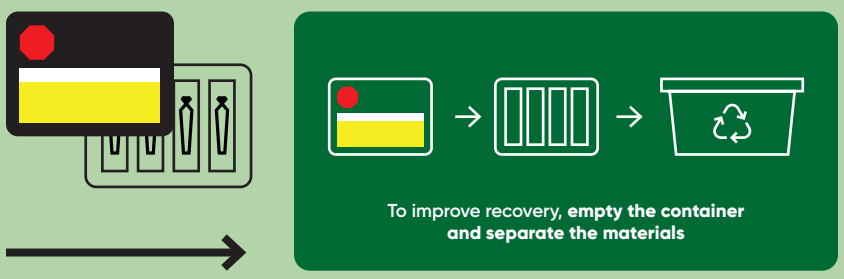
Provide recyclability information by including, among other things, clear and accurate sorting instructions on the packaging. This will encourage consumers to take part in the sorting process. The instructions can take the form of a short statement, a clear pictogram or a combination of the two.

Here is an example →



Please note : As part of the ongoing modernization of Québec's selective collection (curbside recycling) system, the list of accepted materials will be gradually expanded. The changes could affect how consumers take part in the sorting process. For the most up-to-date information, see the information services platforms of expanded producer responsibility (EPR) organizations.

Good recyclability practices by packaging type

2

2 Good recyclability practices by packaging type

This section of the guide is based on Éco Entreprises Québec's packaging recyclability guidelines (RG).

For more information on the guidelines, click here.

Please note that the guidelines are intended as general recommendations for good recyclability practices for packaging. They are not requirements nor are they appropriate in every situation. We recommend complying with the framework applicable to your industry and prioritizing the protection and preservation of your packaged products. Note, too, that the recyclability guidelines will be updated over time to reflect new sorting and recycling technology and changes in the market.

Informed packaging choices require having a comprehensive understanding of recyclability and recognizing that each component can impact overall outcomes.

Components that need to be taken into account include:

1

The packaging body (including the materials):

- pigmentation
- dimensions
- barriers and coatings
- additives
- direct printing

2

The label:

- materials
- surface area coverage
- adhesive
- ink

3

The associated components:

- closure systems
- pumps
- films
- sealants
- safety seals
- etc.

To make the end-of-life stage of your packaging easier to understand and to help you make informed choices about packaging and materials, this section of the guide is designed as a reference tool.

The tables should be used as follows:

1

Determine which packaging type you use or want to use

2

Refer to the section for the packaging material concerned

3

Identify preferred practices, detrimental practices and practices that make the packaging non-recyclable

2 Good recyclability practices by packaging type

Plastic pouches

(recommendations for flexible polyethylene [PE])

Preferred

Body

→ **Monomaterial packaging (PE ≥ 90% of total packaging weight)**

- Improves recycling yield (easier to recycle) and recycled material quality.

→ **Unpigmented or slightly translucent or white pigmentation**

- The most developed market is for transparent (unpigmented), slightly translucent or white PE. Because the current recycling process does not allow include sorting by colour, the pigmentation of the recycled PE will be a mix of all the pigmentations found. To increase the value of recycled flexible PE, avoid pigmentation (except white) or. at the least, keep it to a minimum.

→ **Aluminum oxide (AlOx) or silicon oxide (SiOx) barriers**
(in the conditions prescribed by the Association of Plastic Recyclers [APR])

- Monomaterials are always preferred. However, as barriers and coatings are necessary for preserving and protecting cannabis, give preference to aluminum oxide (AlOx) or silicon oxide (SiOx) because they present no issues for sorting, conditioning and recycling PE.

→ **Minimal direct printing unless recognized by the APR**

- The most developed market is for transparent (unpigmented), slightly translucent or white PE. Direct printing can affect the pigmentation of recycled PE as well as its quality. To be considered minimal, printing should be limited to the production and best-before dates and numbers.

Label

→ **PE labels**

- Labels made from PE whose adhesive and ink are recognized by the APR are compatible with flexible PE recycling.

Associated components

→ **PE closures**

- Associated elements made from PE are compatible with PE recycling.

2 Good recyclability practices by packaging type

Plastic pouches

(recommendations for flexible polyethylene [PE])

Detrimental

Label

→ **Paper labels**

- At the washing and floating stage, paper labels are transformed into suspended fibres, which necessitates filtering and treating the tank water. Some fibres may also adhere to the plastic flake and affect the quality of the recycled material at the extrusion stage.

Non-recyclable

General

→ **PVC, PVDC, PLA and degradable or oxo-degradable plastic**

- They contaminate recyclable materials and affect recycled material quality. PVC and PLA (and other degradable plastics) are subject to a malus (penalty) imposed by Éco Entreprises Québec (ÉEQ).

→ **Substances that are toxic or persistent in the environment (e.g. PFAS)**

- Substances that are toxic or persistent in the environment, such as those described in the *Prohibition of Certain Toxic Substances Regulations* (GoC, 2012) and the *Canadian Environmental Protection Act* (GoC, 1999) may present environmental or health and safety issues.

Body

→ **Multilayer made from PE with PLA, other degradable and oxo-degradable plastics, PVC, PVDC, PET, paper or aluminum**

- They contaminate recyclable materials and affect recycled material quality, making the packaging non-recyclable.

→ **Carbon black and other undetectable pigments**

- Packaging that contains carbon black-based or dark pigments cannot be properly sorted at the sorting centre because the pigments absorb light, which prevents conventional optical scanners from identifying them.

→ **Additives altering the density of the PE**

- During the recycling process, packaging made from PET are cut into flake, which is then immersed in a tank of water for washing and floating. This releases the labels and associated components and makes it possible to separate resins based on their different densities. PET/PE lamination is problematic because the density of PET changes when it is laminated to PE, preventing the PET from being properly separated. Additives that alter the density of the PE so it is > 1 g/cm^3 prevent it from being properly recovered.

→ **Degradable or oxo-degradable additives**

- They contaminate recyclable materials and affect recycled material quality, making the packaging non-recyclable.

Label

→ **Labels made from metal**

- Labels made from metal may lead to sorting errors if they are sorted using magnets or eddy currents. At the conditioning and recycling stages, metallic labels may damage the shredding equipment, affect the quality of the recycled PE and present extrusion issues.

2 Good recyclability practices by packaging type

Paper and cardboard packaging

(laminated paper pouches and cardboard boxes)

Preferred

Body

→ **Monomaterial packaging**

- Increases recycling yield (facilitates sorting, conditioning and recycling) and recycled material quality.

→ **Minimized barriers and coatings**

- Barriers and coatings detach during the pulping stage and are treated as residues, resulting in the loss of any fibres that remain attached to them.

→ **Fibres from responsibly and sustainably managed forest (e.g. FSC, PEFC or SFI-certified fibres)**

→ **Packaging having at least two sides longer than 2 in (55 mm)**

- At the sorting centre, packaging and associated components that are too small will pass through the separation equipment and end up in the residue stream or contaminate the glass stream.

Labels

→ **Paper labels**

- Pulpable paper labels with water-soluble adhesive are compatible with paper and cardboard packaging recycling. Using a water-soluble adhesive means not only that the labels will detach during the pulping stage but also that the adhesive will not affect the other recycling steps or the quality of the recycled material.

→ **Water-soluble adhesives**

- A label that does not separate from the body of the packaging and is not made from the same material usually becomes a contaminant and may affect the quality of the recycled resin.

2 Good recyclability practices by packaging type

Paper and cardboard packaging

(laminated paper pouches and cardboard boxes)

Detrimental

Labels

→ **Unpulpable materials**

- Labels made from unpulpable materials, such as plastic and metal, detach during the pulping stage and are discarded, resulting in the loss of any fibres that remain attached to them.

Associated components (pouch closure system)

→ **Unpulpable materials**

- Associated components made from unpulpable materials, such as plastic and metal, detach during the pulping stage and are discarded, reducing the recycling yield and resulting in the loss of any fibres that remain attached to them.

Non-recyclable

General

→ **Substances that are toxic or persistent in the environment (e.g. PFAS)**

- Substances that are toxic or persistent in the environment, such as those described in the *Prohibition of Certain Toxic Substances Regulations* (GoC, 2012) and the *Canadian Environmental Protection Act* (GoC, 1999), may present environmental or health and safety issues.

2 Good recyclability practices by packaging type

Plastic jars and tubes

(recommendations for polypropylene [PP] and high-density polyethylene [HDPE])

Because regulations require the SQDC to sell only products packaged in non-transparent containers, it is better to use opaque PP and HDPE whose pigments are detectable during optical sorting (at sorting centres and conditioning and recycling firms). It is also recommended to avoid using pigmented PET because the recycled PET market is largely focused on transparent (unpigmented) PET.

Preferred

Body

→ **Monomaterial packaging**

- Increases recycling yield (facilitates sorting, conditioning and recycling) and recycled material quality.

→ **Packaging having at least two sides longer than 2 in (55 mm)**

- At the sorting centre, packaging and associated components that are too small will pass through the separation equipment and end up in the residue stream or contaminate the glass stream.

→ **Detectable pigments or unpigmented**

- At the sorting centre, HDPE and PP packaging made from plastic with detectable pigments can be identified and sorted by optical sorters.

→ **EVOH barriers when necessary for HDPE and PP (as prescribed by the APR)**

- In small quantities, EVOH is compatible with PEHD and PP recycling. At too high a level, EVOH affects the mechanical properties of recycled resin, limiting its use in new products and thus its recyclability.

Labels

→ **Labels made from the same material as the body of the packaging (made of PE for HDPE packaging and of PP for PP packaging)**

- PE labels are compatible with HDPE recycling and PP labels are compatible with PP recycling. Any adhesives used should be water-soluble.

→ **If using PE or PP labels is not possible, favour labels made from other polymers that have a density greater than 1 g/cm³ and are separable (with water-soluble adhesive)**

- At the washing and floating stage, the labels of other polymers, which have a different density from HDPE or PP, should be attached with a water-soluble adhesive so they can detach and be easily retrieved.

→ **Minimal surface area coverage**

- A label covering all or much of a container (e.g. a sleeve label) and made from a different material can interfere with the optical scanner and may cause the container to be directed to the wrong sorting line.

Associated components

→ **Covers, caps and closures made from the same material as the body of the packaging**

- PE covers, caps and closures are compatible with HDPE recycling and PP covers, caps and closures are compatible with PP recycling.

2 Good recyclability practices by packaging type

Plastic jars and tubes

(recommendations for polypropylene [PP] and high-density polyethylene [HDPE])

Detrimental

Labels

→ **Paper labels**

- At the washing and floating stage, paper labels are transformed into suspended fibres, necessitating that the tank water be filtered and processed. Some fibres may also adhere to the plastic flake and affect the quality of the recycled material at the extrusion stage.

Associated components

→ **Paper sealants and safety seals**

- At the washing and floating stage, paper associated components are transformed into suspended fibres, necessitating that the tank water be filtered and processed. Some fibres may also adhere to the plastic flake and affect the quality of the recycled material at the extrusion stage.

Non-recyclable

General

→ **PVC (and PVDC) and PLA (no degradable or oxo-degradable plastic)**

- They contaminate recyclable materials and affect recycled material quality. PVC and PLA (and other degradable plastics) are subject to a malus (penalty) imposed by Éco Entreprises Québec (ÉEQ).

→ **Substances that are toxic or persistent in the environment (e.g. PFAS)**

- Substances that are toxic or persistent in the environment, such as those described in the *Prohibition of Certain Toxic Substances Regulations* (GoC, 2012) and the *Canadian Environmental Protection Act* (GoC, 1999), may present environmental or health and safety issues.

Body

→ **Multilayer made from HDPE or PP combined with PLA, other degradable or oxo-degradable plastics, PVC, PVDC, PS or PET**

- They contaminate recyclable materials and affect recycled material quality, making the packaging non-recyclable.

→ **Carbon black and other undetectable pigments**

- Packaging that contains carbon black-based or dark pigments cannot be properly sorted at the sorting centre because the pigments absorb light, which prevents conventional optical scanners from identifying them.

→ **Additives that change the density of the PE or PP**

- In the recycling process, packaging made from HDPE and PP is shredded into plastic flake, which is then immersed in a washing and floating tank for separation based on the density of the labels and associated components made from other resins. Additives that alter the density of the PE or PP so it is > 1 g/cm^3 prevent them from being properly recovered.

→ **Degradable or oxo-degradable additives**

- The contaminate recyclable materials and affect recycled material quality, making the packaging non-recyclable.

2 Good recyclability practices by packaging type

Steel jars and tubes

Preferred

Body	→ **Monomaterial packaging** • Increases recycling yield (facilitates sorting, conditioning and recycling) and recycled material quality. → **Packaging having at least two sides longer than 2 in (55 mm)** • At the sorting centre, packaging and associated components that are too small will pass through the separation equipment and end up in the residue stream or contaminate the glass stream.
Labels	→ **Labels made from paper** • Paper labels are compatible with the thermic processes used in metal recycling plants.
Associated components	→ **Covers, caps and closures made from ferrous metal** • Increase recycling yield (easier to recycle) and recycled material quality.

Detrimental

Labels	→ **Labels made from plastic** • At the conditioning and recycling stages, plastic residues can collect on equipment and increase the risk of fire.
Associated components	→ **Covers, caps and closures made from plastic** • At the steel conditioning and recycling stages, plastic residues can collect on equipment and increase the risk of fire.

Non-recyclable

General	→ **Substances that are toxic or persistent in the environment (e.g. PFAS)** • Substances that are toxic or persistent in the environment, such as those described in the *Prohibition of Certain Toxic Substances Regulations* (GoC, 2012) and the *Canadian Environmental Protection Act* (GoC, 1999), may present environmental or health and safety issues.

2 Good recyclability practices by packaging type

Glass jars and tubes

Preferred

Body

→ **Monomaterial packaging (soda-lime glass)**

- Increases recycling yield (facilitates sorting, conditioning and recycling) and recycled material quality.
- Soda-lime glass (made from silica, sodium oxide and calcium oxide) dominates the glass packaging market. A different glass formulation would require technically complex sorting to avoid impacting the process and the quality of the final product.

→ **Packaging having at least two sides longer than 2 in (55 mm)**

- At the sorting centre, packaging and associated components that are too small will pass through the separation equipment and end up in the residue stream.

→ **Translucent pigments (preferred: green or amber) or unpigmented**

- Glass's translucence distinguishes it from infusibles like ceramics and porcelain during optical sorting (avoid using opaque pigmentation or painting the glass). The most developed market is for transparent (unpigmented) or translucent green or amber glass.

→ **Minimal direct printing**

- As demand is strongly for transparent clear or translucent green or amber glass, direct printing can have an impact on the pigmentation of recycled glass and may adversely affect its quality. To be considered minimal, printing should be limited to the production and best-before dates and lot numbers.

Associated components

→ **Separable covers, caps and closures made from metal or plastic**

- To avoid affecting the quality of the recycled glass, the associated components need to be separated and removed during the sorting, conditioning and recycling process.

2 Good recyclability practices by packaging type

Glass jars and tubes

Detrimental

→ **Opaque or painted glass**

- Optical sorting by colour uses the translucence of glass to distinguish it from infusibles like ceramics and porcelain. Opaque and painted glass runs a high risk of being rejected.

→ **Adhesives that prevent the label from being detached by friction**

- Some conditioners and recyclers include a step that removes labels by friction (rubbing). The success of the step depends on the adhesives used. If the labels do not detach easily, they can lead to glass loss and have an impact on recycled glass quality.

Non-recyclable

General	→ **Substances that are toxic or persistent in the environment (e.g. PFAS)** • Substances that are toxic or persistent in the environment, such as those described in the *Prohibition of Certain Toxic Substances Regulations* (GoC, 2012) and the *Canadian Environmental Protection Act* (GoC, 1999), may present environmental or health and safety issues.
Body	→ **Pigmentation containing heavy metals** • Heavy metals present environmental and human health and safety issues.
Associated components	→ **Covers, caps and closures made from infusibles (Pyrex, ceramics, porcelain)** • Infusibles are incompatible with glass recycling because they cannot be melted. If they are not removed during the sorting, conditioning and recycling process, they will adversely affect the quality of the recycled glass.

2 Good recyclability practices by packaging type

Boxes and cases

(general recommendations)

For specific recommendations by material, please refer to the preceding sections.

Metal case + plastic tray

Cardboard box + plastic tray

Plastic cases (PP)

Preferred

- → **Monomaterial packaging**
  - Increases recycling yield (facilitates sorting, conditioning and recycling) and recycled material quality.
- → **Packaging having at least two sides longer than 2 in (55 mm)**
  - At the sorting centre, packaging and associated components that are too small will pass through the separation equipment and end up in the residues stream or contaminate the glass stream.
- → **Separable components (separable cases and trays) if made from different materials**
- → **Sorting instructions to separate components made from different materials and place them in a recycling bin**
- → **For plastic trays, favour transparent (unpigmented) PET**
  - The transparent PET market is currently the most developed.

Non-recyclable

- → **PVC (and PVDC) and PLA (no degradable or oxo-degradable plastic)**
  - They contaminate recyclable materials and affect recycled material quality. PVC and PLA (and other degradable plastics) are subject to a malus (penalty) imposed by Éco Entreprises Québec (ÉEQ).
- → **Substances that are toxic or persistent in the environment (e.g. PFAS)**
  - Substances that are toxic or persistent in the environment, such as those described in the *Prohibition of Certain Toxic Substances Regulations* (GoC, 2012) and the *Canadian Environmental Protection Act* (GoC, 1999), may present environmental or health and safety issues.
- → **Carbon black and other undetectable pigments**
  - Packaging that contains carbon black-based or dark pigments cannot be properly sorted at the sorting centre because the pigments absorb light, which prevents conventional optical scanners from identifying them.

Examples of other good practices to consider

3

3 Examples of other good practices to consider

To optimally include environmental criteria in an eco-design process, the entire path of the packaged product needs to be considered. Three types of packaging are used to make shipping, selling and using products possible →

Packaging system (general)

1

Primary or sales packaging

The packaging that is in direct contact with the product and its user. Also known as an SKU (stock-keeping unit), it is used to contain, preserve and protect the product, to list, present and sell the product's characteristics to consumers (printing or label) and to make the product easier for consumers to handle (use case). (ITEGA, 2023 [translated])

→ Example: plastic jars containing dried cannabis flowers

2

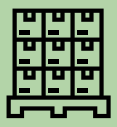
Secondary or grouped packaging

This type of packaging groups several primary packaging units to make a sales unit. It can also be used as a display in stores. It makes it easier to handle small products by grouping them in a single pack and providing additional protection (often against impacts and breakage), a mode for shipping or a mode for display. (ITEGA, 2023 [translated])

→ Example: box that holds plastic jars containing dried cannabis flowers

3

Tertiary or bulk packaging



This type of packaging, also called transit packaging, is used to group large quantities of products for transportation and handling purposes. It shouldn't be overlooked, as it can provide protection that helps prevent loss and breakage.

→ Example: paperboard cases grouped on a pallet with shrink wrap

All three levels of packaging should be considered because changes made to primary packaging can have repercussions on the other levels and vice versa.

Packaging systems can also be rethought based on the preferred means of transport, the distances travelled, package weight and volume and package stackability (before and after packaging) to improve efficiency and reduce energy consumption and environmental impacts.

3 Examples of other good practices to consider

Compostable and biodegradable packaging

While marketing products with minimal environmental impact is a commendable goal, biodegradable and compostable plastic packaging have limitations that belie their current popularity. That is a conclusion of a 2021 report published jointly by Éco Entreprises Québec and the Solinov consulting firm, which specializes in environment and organics management. →

There are two main differences between biodegradable and compostable plastic packaging:

1 **Degradation time**	Degradation of compostable plastic should occur at a rate comparable to that of food waste and green waste, whereas there is no established time frame for the degradation of biodegradable plastic.
2 **Impact on the environment**	In contrast to biodegradable plastic, compostable plastic, once degraded, should not leave any visible, recognizable or toxic residues.

At the end of their life, biodegradable and compostable plastic packaging are not compatible with or adapted to existing processing channels. Here is a summary of the impacts of these two types of plastic on each processing channel →

Organic materials bin

- Very difficult to differentiate from other plastics that are removed to maintain compost quality.
- If it doesn't break down fast enough, it will be removed and sent to landfill.

Recyclable materials bin (containers, packaging and printed paper)

- Very hard to differentiate from other plastics.
- If sorted, it's removed and sent to landfill.
- If unsorted, it is a source of contamination for conventional plastics.

Garbage

- At the landfill site, it is compacted and not exposed to the conditions required for composting. It is therefore treated like all other waste.

Nature

- It is not designed to break down in nature and so becomes litter.
- It needs specific conditions and processing in order to break down.

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3 Examples of other good practices to consider

Compostable and biodegradable packaging

The example of compostable packaging clearly shows the importance of relying on eco-design to obtain an overview of all the factors to consider when designing packaging.

This is even more important at a time when selective collection (curbside recycling) is being modernized and companies are called on to be responsible for the packaging they put on the market.

Note that, at the time of the consultation on the 2022 fee, Éco Entreprises Québec announced the introduction of a malus (penalty) to the 2024 fee for polylactic acid (PLA) and other degradable plastics. For more information, please see the ÉEQ's 2021-2025 eco-modulation roadmap.

Good to know

1. **All compostable plastics are biodegradable but not all biodegradable plastics are compostable.**
2. **The wording "biodegradable" or "compostable" on packaging is an environmental claim that has not been verified by a third party (unless the packaging is certified). The actual biodegradability or compostability of a packaging item so designated by its manufacturer is therefore far from certain. That is why it is essential to require the manufacturer to provide official proof of the validity of the claim.**
3. **Existing certifications officially stating that a product is suitable for composting are voluntary and tested in laboratories under specific, controlled conditions different from those encountered in the real world.**
4. **Because these claims are confusing, citizens make sorting errors. Compostable packaging is found in all municipal collection streams: waste, organic matter, recyclables and sometimes even in the wild (litter). Ultimately, a significant number of these packaging items risk ending up in landfill.**
5. **In contrast to the recycling channel, the mission of the composting and methanization (anaerobic digestion) channel is not to manage packaging and extract materials. Instead it aims to produce compost or a quality digestate that can be returned to the soil.**

3 **Examples of other good practices to consider**

Responsible communication

→ Three steps to communicating effectively

1

Draw up a list of the improvements made to the packaging and choose the most relevant to communicate to consumers (reducing the packaging's mass, removing a component or incorporating recycled content, for example).

2

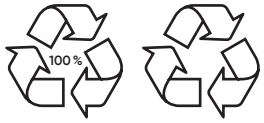
Support the information with facts, such as quantitative data or comparative data with the former product, graphics, certification.

3

Inform consumers without ambiguity using relevant, accurate, factual and verifiable messages.

→ Demystify the Möbius strip, resin identification code and sorting instructions

Providing sorting instructions on the package is recommended as a preferable way to inform consumers about the recyclability potential of a packaging item. →



Möbius strip

The Möbius strip indicates that the packaging is potentially recyclable. For its part, the percentage in the centre means the packaging contains that percentage of recycled material. Note that the Möbius strip is a self-declaration unverified by an official third party, albeit one that is governed by the ISO 14021 standard.

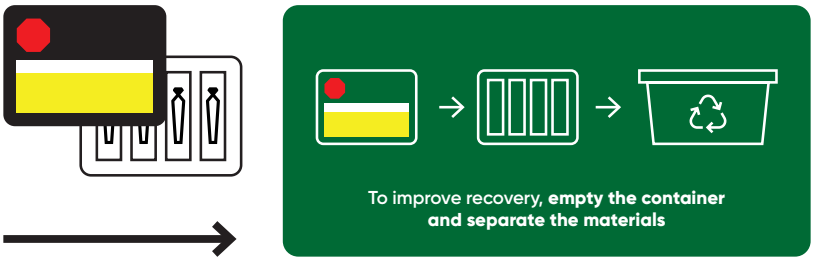
Resin identification code (RIC)

The RIC is used to identify – with a number and an abbreviation – the type of resin of each packaging component. It is a graphic symbol developed by and for the industry and not for consumers.

To avoid consumers associating the RIC with a recyclability symbol, the ASTM D7611 standard specifies that an equilateral triangle be used and that the symbol should not be located near the Möbius strip or the term "recyclable."

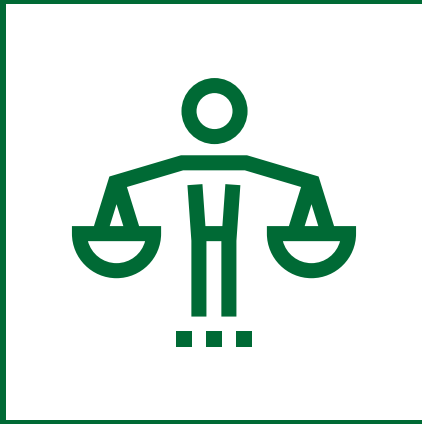
Sorting instructions

Sorting instructions explain how to manage each packaging component at the end of its life by way of encouraging consumers to take part in the sorting process. The instructions can be either a short statement or a clear pictogram.



Legal reminder

4



Cannabis packaging and labelling are strictly regulated in Canada and Québec. The regulatory framework is largely aimed at protecting young people, preventing cannabis use from being promoted, particularly to minors, and providing clear information to consumers.

Under the federal *Cannabis Act* and *Cannabis Regulations*, applicable nationwide, cannabis product packaging must be neutral: product labelling may not be appealing to young people, may not include testimonials or endorsements, may not associate cannabis use with a particular lifestyle and may not evoke positive or negative emotions. The colour of the package surfaces, the presence of images and brand elements and the layout of information, warnings and the standardized cannabis symbol are strictly regulated. Other regulations control product quality, which, among other things, involves packaging that maintains quality and prevents contamination, and require that all packaging be child-resistant.

In Québec, the *Cannabis Regulation Act* also prohibits the use of prohibited advertising tactics on labels.

Important: the SQDC's eco-responsible packaging requirements and the recommendations contained in this guide are in no way intended as an inducement to ignore your legal obligations in meeting them. In no case do they eliminate such legal obligations. Nothing in this guide should be taken as constituting advice of a legal nature. You remain fully responsible for ensuring that your operations are conducted in full compliance with your legal obligations.

Glossary

AlOx
Aluminum oxide.

APR
Association of Plastic Recyclers.

Associated components
Associated components include corks and other closure systems, pumps, security seals, films, sealants, safety seals, etc.

BPA
Bisphenol A.

Contaminant
Undesired material that has an impact on the sorting, reclaiming, recycling and value of the recycled materials.

Surface area coverage
The proportion of the packaging that is covered by the label.

Degradable (plastics)
Capable of decomposing (a process involving a structural change characterized by a loss of properties and/or fragmentation) under special conditions to a specific degree and over a specific time period.

Direct printing
Printing done directly on the packaging.

Eco-design
Eco-design is a preventative approach that takes into account environmental, social and economic criteria during the design phase of a packaging item, while preserving that item's use value. (ÉEQ, 2024)

Eco-inking
Practice aimed at reducing or optimizing the use of ink in package design and document printing, mainly for environmental and economic reasons. (OQLF, 2023b [translated])

Eddy current (Foucault current)
Sorting centres use eddy currents to separate non-ferrous metals, including aluminum, by employing the metals' electrical conductivity to temporarily magnetize them.

ÉEQ
Éco Entreprises Québec

End of life
Stage in a product's life in which the product can no longer be used or has stopped working and cannot be repaired. An end-of-life product can usually be recycled or reclaimed. Alternatively, the product may be treated as waste. (OQLF, 2023b [translated])

EPR
Extended producer responsibility.

ESG
Environmental, social and corporate governance factors.

EVOH
Ethylene vinyl alcohol.

Extrusion (plastics)
Formation process in which molten resin is injected under heat into a mould.

Ferrous (metals)
Metals that contain iron and are magnetic.

Flake (plastic)
During plastic recycling, packaging is cut into small pieces using rotating knives.

FSC
Forest Stewardship Council.

GHG
Greenhouse gas.

HDPE
High-density polyethylene.

Infusibles
Ceramics, porcelain and Pyrex are infusibles that are incompatible with glass recycling because they cannot be melted.

ISO 140404
ISO 14044:2006 is an international standard that describes the principles and framework for life cycle assessment (LCA). ISO 14044:2006 covers life cycle assessment studies and life cycle inventory studies. (ISO, 2024)

LCA
Life-cycle assessment.

LDPE
Low-density polyethylene.

Malus (penalty)
Imposition of a penalty on the contribution payable for targeted materials without a recycling channel or viewed as disruptive of pick-up, sorting, reclaiming and recycling.

Monomaterial
Made from a single material.

Multilayer
Comprising several layers of a single material or of various materials.

Glossary

Multimaterial
Consisting of several different materials.

Non-ferrous (metals)
Metals that do not contain iron and are therefore not magnetic, such as aluminum, copper and zinc.

Optical sorter
Device that shines light rays on packaging to identify and sort the materials.

Optical sorting
Process using a device that shines light rays on packaging. The rays are reflected by the materials. Each of which has its own signature, and captured by a lens, which identifies the materials.

Oxo-degradable (plastics)
Undergoes fragmentation (breaking down into small pieces) caused by additives to conventional plastics (made from petrochemicals or fossil resources) when exposed to sunlight, heat or mechanical stress, thereby generating plastic residue.

PET
Polyethylene terephthalate.

PETG
Polyethylene terephthalate glycol.

PFAS
Perfluoroalkyl and polyfluoroalkyl substances. PFAS are a group of over 4,700 related organic compounds that have a fluorinated carbon chain structure. They are synthetic chemicals with high chemical and thermal stability that can repel water and oils. PFAS persist in the environment and can accumulate in the body over time. (GoC, 2024)

PE
Polyethylene.

PLA
Polylactic acid.

PP
Polypropylene.

PS
Polystyrene.

Pulpable
Ability of paper and carboard to undergo pulping through friction to break apart the fibres, which become suspended in the water.

Pulping
Used in the recycling of paper and cardboard packaging, this friction-based grinding process breaks apart the fibres, which become suspended in the water.

PVC
Polyvinyl chloride.

PVDC
Polyvinylidene chloride.

Recycling
Process whereby a residual material undergoes transformations so it can be used as a raw material for manufacturing new products. (OQLF, 2023 [translated])

Selective collection (curbside recycling)
Recovery method in which residual materials are picked up for further processing. With selective collection, the materials are voluntarily brought to a drop-off location (point of sale, bin, container, ecocentre or waste recovery centre) or to the curb. (RECYC-QUÉBEC, 2024 [translated])

Shrink-sleeve label
Label that partially or completely covers the package and is made from heat-shrink plastic resin.

SiOx
Silicon oxide.

Soda-lime (glass)
Glass made from silica, soda (sodium oxide) and lime (calcium oxide) and used to manufacture containers and bottles.

Sorting centre
Facility that sorts residual materials, in particular recyclables and construction, renovation and demotion (CRD) waste, in preparation for recycling and reclamation. (RECYC-QUÉBEC, 2024 [translated])

Translucency
The quality of allowing light to pass diffusely but without allowing objects on the other side to be clearly distinguished (with pigmentation).

Transparency
The quality of allowing light to pass completely and objects on the other side to be clearly distinguished (no pigmentation).

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Concept and graphic design
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