The 2020 rate for recycling of household packaging

The interactive tool
Any doubts about the material-based rate applied to packaging or a packaging unit?

Find the rate for your material in no more than five clicks!

The purpose of the 2020 guide is to explain the rate applicable to the recycling of household packaging. It is not contractually binding. View the 2020 rate with the contractual rates.
Does your CSU contain multiple packaging units?

Yes

What is the primary material in your 1st packaging unit?
Remember to test your other units as well!

Steel
RATE 1

Aluminium
RATE 2

Glass
RATE 5

Paper & Cardboard
RATE 6

Is it a brick pack?

Yes
RATE 4

No
RATE 3

Is it a bottle/vial?

Yes
RATE 21

No
RATE 22

Which resin is used for the flexible body?

Yes

PE
RATE 6.4

PVC
RATE 6.7

Complexes** or other resins (PET, PP, PLA, PS etc.)
RATE 6.6

No

Which resin is used for the rigid body?

Yes

PE, PP or PET
RATE 6.3

PS
RATE 6.5

PVC
RATE 6.7

Complexes** or other resins (PET, PP, PLA, PS etc.)
RATE 6.6

No

Which resin is used for the body of your packaging Flexible or rigid?

Flexible

Clear PET
RATE 6.1

Coloured PET, PE, PP
RATE 6.2

PVC
RATE 6.7

Complexes** or other resins (PLA, PETG, PC, PAN etc.)
RATE 6.6

Rigid

No

Other
RATE 7.1

Plastic
RATE 7.2

Wood, cork...
RATE 7.1

Sandstone, ceramic...
RATE 7.2

For these material categories, if your packaging unit / packaging is multi-material or multi-layer, check the breakdown by material to see whether you can apply the majority material rule (see p. 11).

** Mixture of two or more resins, mixture of a plastic resin with another material
Each material rate has its own fact sheet!

The fact sheets on rates by material help you find:

1. Information on the rate by material
   - Sorting instructions, recyclability, opportunities, technical information for those wishing to find out more, and keys for recognizing packaging types.

2. The bonuses and penalties applicable to this specific material rate
   - To identify which penalties and bonuses can impact the rate, based on the exact nature and characteristics of the packaging.

3. Citeo commitments
   - Additional information on the initiatives set in motion by Citeo and its partners.
Does your CSU contain more than one packaging unit?

UNDERSTANDING PACKAGING UNITS

Your contribution by CSU is calculated based on the number of packaging units.

What is a packaging unit?
A packaging unit is a component of packaging that can be separated from the product when consumed or used by a household.

EXAMPLE

Box of biscuits = 3 packaging units
1 cardboard sleeve + 1 plastic tray + 1 plastic bag

Tube of cosmetic cream = 3 packaging units
1 plastic tube + 1 plastic cap + 1 peel-off lid

EXAMPLE

YES

NO
What is the **MAJORITY MATERIAL** in this packaging?

**WHAT IS A MAJORITY MATERIAL?**

The majority material is the heaviest material in the packaging unit. For a paper-cardboard toy box with a small plastic window, the main material will be paper-cardboard, which is heavier than plastic.
What is the **MAJORITY MATERIAL** of this packaging unit?

**WHAT IS A MAJORITY MATERIAL?**

The majority material is the heaviest material in the packaging unit. For a paper-cardboard toy box with a small plastic window, the main material will be paper-cardboard, which is heavier than plastic.

At the end of the questionnaire, remember to test the other packaging units that make up your CSU.
Is it a brick?
The packaging or packaging unit is made of...

WOOD, CORK, TEXTILE, WAX, OTHER...

STONEWARE, PORCELAIN, CERAMIC
Is it a **BOTTLE** or a **VIAL**?

---

Back to previous step
Which plastic resin is used for the bottle or vial **BODY**?

**WHAT IS THE BODY?**
The body is the most important part in terms of volume and weight in a packaging unit. For example, taking a water bottle, the body is the PET bottle, and the tamper-proof ring and label are components associated with the body.

**ANY DOUBTS ABOUT THE COLOUR?**
The reference for determining the threshold between light blue and dark blue PET is the Quézac® brand bottle: blue lighter than or equivalent to Quézac water falls into the clear PET category.

**CLEAR PET**
(including rPET)

**COLOURED PET, PE OR PP**
(including rPET, rPE and rPP)

**PVC**

**COMPLEX**
mixing 2 or more resins, a plastic with another material or **OTHER PLASTICS**
(PLA, PETG, PC, SAN, etc.)
Is the packaging or packaging unit FLEXIBLE or RIGID?
Which resin is used in the flexible BODY?

WHAT IS THE BODY?
The body is the most important part in terms of volume and weight in a packaging unit. For a bag of frozen foods, the body is the bag itself.
Which resin is used to make the rigid BODY

**WHAT IS THE BODY?**
The body is the most important part in terms of volume and weight in a packaging unit. For a tray of fruit, the body is the tray itself.

- **PP, PE OR PET**
- **PS**
- **PVC**
- **COMPLEX** mixing of 2 or more resins, a plastic with another material or **OTHER PLASTICS** (PLA, ABS, PETG, PMMA, etc.)
Is **STEEL** the majority material accounting for more than 80% of this packaging unit?

**THE MAJORITY MATERIAL RULE**

The weight of a complex packaging unit (multi-material or multi-layer) of a CSU can be declared according to the majority material if the said material comprises more than 80% of the packaging unit. In addition, the weight of a label affixed to a packaging item can be declared according to the weight of the main material of the CSU.
Is **aluminium** the majority material, accounting for more than 80% of this packaging unit?

**THE MAJORITY MATERIAL RULE**

The weight of a complex packaging unit (multi-material or multi-layer) of a CSU can be declared according to the majority material if the said material comprises more than 80% of the packaging unit. In addition, the weight of a label affixed to a packaging item can be declared according to the weight of the main material of the CSU.
Is **GLASS** the main material, accounting for more than 80% of this packaging unit?

**THE MAJORITY MATERIAL RULE**

The weight of a complex packaging unit (multi-material or multi-layer) of a CSU can be declared according to the majority material if the said material comprises more than 80% of the packaging unit.

In addition, the weight of a label affixed to a packaging item can be declared according to the weight of the main material of the CSU.

**YES**

**NO**
Is the PAPER-CARDBOARD the majority material accounting for more than 80% of this packaging unit?

THE MAJORITY MATERIAL RULE
The weight of a complex packaging unit (multi-material or multi-layer) of a CSU can be declared according to the majority material if the said material comprises more than 80% of the packaging unit. In addition, the weight of a label affixed to a packaging item can be declared according to the weight of the main material of the CSU.

YES

NO
Is **WOOD** or **CORK** the main material, accounting for more than 80% of this packaging unit?

**YES**  **NO**

**THE MAJORITY MATERIAL RULE**

The weight of a complex packaging unit (multi-material or multi-layer) of a CSU can be declared according to the majority material if the said material comprises more than 80% of the packaging unit. In addition, the weight of a label affixed to a packaging item can be declared according to the weight of the main material of the CSU.
Is SANDSTONE, CERAMIC or PORCELAIN the majority material accounting for more than 80% of this packaging unit?

THE MAJORITY MATERIAL RULE

The weight of a complex packaging unit (multi-material or multi-layer) of a CSU can be declared according to the majority material if the said material comprises more than 80% of the packaging unit.

In addition, the weight of a label affixed to a packaging item can be declared according to the weight of the main material of the CSU.
The weight of the packaging or packaging unit needs to be divided up between the various materials involved: specify the weights of each material in grams that go into the packaging or packaging unit.

**A 10g BOTTLE**

- **60%** Glass
- **40%** Steel

**A 100g BOX**

- **70%** Cardboard
- **30%** Flexible plastic PE

---

Find the material rate for another packaging or another packaging unit.

<table>
<thead>
<tr>
<th>THE RATES BY MATERIAL</th>
<th>Rate in ct €/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel</td>
<td>4.55</td>
</tr>
<tr>
<td>Aluminium</td>
<td>11.45</td>
</tr>
<tr>
<td>Paper &amp; Cardboard</td>
<td></td>
</tr>
<tr>
<td>Paper/cardboard</td>
<td>16.53</td>
</tr>
<tr>
<td>Brick</td>
<td>24.61</td>
</tr>
<tr>
<td>Glass</td>
<td>1.35</td>
</tr>
<tr>
<td>Plastic</td>
<td></td>
</tr>
<tr>
<td>Bottle and vial in clear PET</td>
<td>28.88</td>
</tr>
<tr>
<td>Bottle and vial in dark/coloured PET, PE or PP</td>
<td>30.92</td>
</tr>
<tr>
<td>Rigid packaging in PE, PP or PET</td>
<td>33.30</td>
</tr>
<tr>
<td>Flexible PE packaging</td>
<td>36.08</td>
</tr>
<tr>
<td>PS rigid packaging</td>
<td>38.85</td>
</tr>
<tr>
<td>Complex packaging or other resins excluding PVC</td>
<td>41.63</td>
</tr>
<tr>
<td>Packaging containing PVC</td>
<td>48.57</td>
</tr>
<tr>
<td>Other materials</td>
<td></td>
</tr>
<tr>
<td>Wood, cork, textiles, etc.</td>
<td>41.63</td>
</tr>
<tr>
<td>Stoneware, porcelain, ceramic</td>
<td>48.57</td>
</tr>
</tbody>
</table>
The material rate for this packaging or packaging unit is:

**MATERIAL RATE I**  
STEEL

---

**EMBLEMATICAL PACKAGING:**

**SORTING INSTRUCTIONS**  
Steel packaging has been included in national sorting guidelines since 1993.

**RECYCLING**  
Steel is a material that can be recycled without losing its technical properties. The challenges for the sector are compliance for the quality of the material upon reception at the steel mill, in particular by avoiding the presence of intertwinement or plastic elements from the recycling process and which could cause industrial damage and endanger safety risks for personnel.

**OUTLETS**  
Steel packaging from selective collection, contributes to the production of new steel, which will be used to manufacture cars, household appliances, construction elements and, of course, packaging.

1 tonne of recycled steel can be used to manufacture 13 washing machines or 14 metres of train rails.

**FIND OUT MORE**

https://www.citeo.com/le-mag/securite-en-centre-de-tri-un-nouveau-guide-de-recommandations/

---

**RATES AND ECO-MODULATION**

Material rate by weight 1, Steel: 4.55 €ct/kg

<table>
<thead>
<tr>
<th>ACTION TAKEN</th>
<th>BONUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triman alone or with sorting guidelines block</td>
<td>3% Triman alone or 8% full sorting guidelines</td>
</tr>
<tr>
<td>Media awareness campaign</td>
<td>4%</td>
</tr>
<tr>
<td>Reduction at source</td>
<td>8%</td>
</tr>
</tbody>
</table>

---

**CITEO COMMITMENTS**

To improve the sorting and quality of steel:

In partnership with the materials sectors for metals and in particular ARCELORMITTAL for steel, Citeo has produced a recommendation guide for improving the sorting of steel and aluminium packaging.

As part of the modernisation of sorting centres, this guide details the essential practices to be implemented to optimise the recovery of metal fractions to the greatest extent possible.

To find out more:

https://www.citeo.com/le-mag/securite-en-centre-de-tri-un-nouveau-guide-de-recommandations/

---

---
The material rate for this packaging or packaging unit is:

Material by weight 2, Aluminium: 11.45 €/ct/kg

<table>
<thead>
<tr>
<th>ACTION TAKEN</th>
<th>BONUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triman alone or with sorting guidelines</td>
<td>5% Triman alone or 8% full sorting guidelines</td>
</tr>
<tr>
<td>Media awareness campaign</td>
<td>4%</td>
</tr>
<tr>
<td>Reduction at source</td>
<td>8%</td>
</tr>
</tbody>
</table>

CITEO COMMITMENTS

To recycle small item of aluminium packaging
- Set up in 2014 by CELAA, alongside Citeo, the French Financial Markets Authority (AMF) and the Endowment Fund for the recycling of small pieces of aluminium by Nespresso, the Metal Project set up the first recycling channel for light aluminium and steel packaging in France by acting on three levers:
  - simplifying sorting guidelines for residents
  - adapting the processes in the sorting centres for better collection of these small packaging items
  - (27 sorting centres, serving 15 million inhabitants, are now equipped to industrially sort light metal packaging)

- the identification of a new recovery technology for light aluminium packaging items (pyrolysis).

This new channel makes it possible to recover light metal packaging, which is in full expansion: sachets, bottle caps, lids, fresh cheese packaging, etc.

To find out more: https://www.citeo.com/actualites/projet-metal-recyclier-plus-de-petits-emballages-metalliques

Sort in 1993.

In 2018, the recycling rate for aluminium packaging from selective collection was 44%. Representing 1.5% of deposits by weight, but 8% by number, small aluminium packaging, due to its size, is more difficult to recover at a sorting centre.

For 1,000 kg of aluminium from selective collection, after recycling, 586 kg of recycled aluminium will be used for car wheel rims, radiators, soleplates for irons.

- 115 cans = one scooter
- 230 cans = one bicycle frame
- 2,900 cans = one radiator

Aluminium packaging is collected in the sorting centre by an eddy current, a kind of inverted magnet that will eject the packaging as it passes along the sorting belt.
The material rate for this packaging or packaging unit is:

**MATERIAL RATE 3**

**PAPER – CARDBOARD**

**SORTING INSTRUCTIONS**
Card packaging has been included in national sorting guidelines since 1993.

**RECYCLING**
In 2018, the recycling rate for paper/cardboard packaging was 69%. The challenges for the sector today: limiting the quantity of other materials combined with paper and cardboard, avoiding reinforced packaging, and avoiding the use of inks with “mineral oils” that can weaken the circular economy.

**OUTLETS**
Out of 1,000 kg of paper/cardboard from selective collection, after recycling, 825 kg of paper/cardboard pulp is obtained, which will be used to make new paper, packaging, toilet paper or insulation products (moulded cellulose for buildings).
1 box of cereals = one egg box (equivalent)
7 toy boxes = one cardboard box for 6 bottles

**RATE AND ECO-MODULATION**

Material rate by weight 3, Paper and cardboard: **16.53 €/ct/kg**

<table>
<thead>
<tr>
<th>ACTION TAKEN</th>
<th>BONUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triman alone or with sorting guidelines block</td>
<td>5% Triman alone or 8% full sorting guidelines</td>
</tr>
<tr>
<td>Media awareness campaign</td>
<td>4%</td>
</tr>
<tr>
<td>Reduction at source</td>
<td>8%</td>
</tr>
</tbody>
</table>

**DISCOUNT FOR THE USE OF RECYCLED PAPER/CARDBOARD**
The contribution for paper and cardboard packaging that includes raw materials from recycling is reduced by 10% if more than 50% of the packaging’s total weight consists of recycled material.

**CITEO COMMITMENTS**

- Developing innovation for paper and cardboard packaging: this is the objective of Citeo through its collaboration with the Technical Paper Centre for a specific innovation programme for paper and cardboard packaging. This means for the 2019-2022 period.
  - Citeo is investing €1.8 million in this partnership. Citeo is also a member of CEREC (the Evaluation Committee for the Recyclability of Paper-Cardboard Packaging), which helps companies to assess their technical choices with regard to the recyclability of their packaging.

- Supporting eco-design processes to improve the recyclability of paper and cardboard packaging: Citeo is a member of CEREC, the Evaluation Committee for the Recyclability of Paper-Cardboard Packaging.
  - To find out more: [https://www.cerec-emballages.fr](https://www.cerec-emballages.fr)

- Limiting mineral oils: Citeo has implemented an action plan to reduce the presence of mineral oils in paper-cardboard packaging and graphic paper, to offer guidance to make the right eco-design choices and secure recycling loops for graphic paper and paper-cardboard packaging.
  - To find out more: [https://www.citeo.com/en-mag/525](https://www.citeo.com/en-mag/525)

**FIND OUT MORE**

When paper/cardboard packaging is recycled in the paper/cardboard recycling channel, it is the cellulose fibres that are recycled. Other materials, such as a plastic windows, will be removed by the paper recycling process and generally recovered for energy. It is, therefore, important through eco-design to limit the quantities of materials combined with paper/cardboard.

Find the material rate for another packaging or another packaging unit.
The material rate for this packaging or packaging unit is:

BRICK

Material rate by weight 4, Brick: 24.61 €/ct/kg

<table>
<thead>
<tr>
<th>ACTION TAKEN</th>
<th>BONUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triman alone or with sorting guidelines block</td>
<td>5 % Triman alone or 8 % full sorting guidelines</td>
</tr>
<tr>
<td>Media awareness campaign</td>
<td>4 %</td>
</tr>
<tr>
<td>Reduction at source</td>
<td>8 %</td>
</tr>
</tbody>
</table>

Find the material rate for another packaging or another packaging unit.

A brick can be composed of 3 layers of cardboard/plastic/aluminium or 2 layers of cardboard/plastic.

The majority of bricks consist on average of 75% cardboard, 21% plastic and 4% aluminium.

The cardboard provides rigidity, plastic is for sealing and aluminium forms a barrier to preserve and ensure the hygiene safety of the products.

To find out more: https://www.citeo.com/le-mag/les-projets-du-materiau-s’emballage/

Citeo commitments

Developing innovation for paper/cardboard packaging: the aim of Citeo through its collaboration with the Technical Centre for Paper is to set up a specific innovation programme for paper/cardboard packaging and bricks. This means for the 2019-2022 period, Citeo is investing €1.8 million in this partnership. Citeo is also a member of CEREC, the Evaluation Committee for the Recyclability of Paper/Cardboard Packaging, which helps companies to assess their technical choices with regard to the recyclability of their packaging.

To find out more: https://www.citeo.com/le-mag/les-projets-du-materiau-papier-carton/
The material rate for this packaging or packaging unit is:

**MATERIAL RATE 5**

**GLASS**

**SORTING INSTRUCTIONS**
Glass has been collected and recycled in France since 1974. It is a pioneer in selective collection. Only glass packaging can be recycled, i.e. bottles, pots, jars, and bottles.

**RECYCLING**
Glass can be recycled infinitely 100%. The recycling rate for glass from selective collection was 86.5% in 2018. When it arrives at the processing centre, the glass undergoes a whole series of sorting techniques to eliminate unwanted and polluted substances (metals, infusible materials such as porcelain and ceramic, and light elements such as paper, plastics and stoppers). Most of the outlet (recycled glass) is used to remake glass packaging by way of a closed loop.

**OUTLETS**
In France, the collection is made in combination with the different glass colours (brown, green, colourless, etc.). France has been pioneering and innovative in Europe, developing complementary industrial sorting by colour that separates colourless glass from colourless glass. This makes it possible to increase recycling capacities, in particular for colourless glass, without modifying the sorting process for the population and the collection system for local authorities. Closed loop recycling: a glass bottle becomes a bottle again.

**RATE AND ECO-MODULATION**

**Material rate by weight 5, Glass**: 1.35 ct €/kg

**ACTION TAKEN** | **BONUS**
--- | ---
Triman alone or with sorting guidelines block | 5% Triman alone or 8% full sorting guidelines
Media awareness campaign | 4%
Reduction at source | 8%

**ISSUES**

**MAIN POTENTIAL ISSUES** | **PENALTY**
--- | ---
Glass packaging with a non-magnetic steel closing system | The quality of the recycled material is a safety issue for operators and an industrial tool degradation matter
Glass packaging other than soda-lime | Quality of recycled industrial material
Packaging made of soda-lime glass with associated infuse element (porcelain, ceramic, sandstone, etc.) | Damage to industrial facilities

**CITEO COMMITMENTS**

- Developing the collection and sorting of glass: Developing the collection and sorting of glass: in the spirit of the first relaunch plan which, thanks to the setting up of 8,000 additional collection points, has enabled good growth in collection. Citeo is continuing and accelerating its actions to develop glass collection. To do that, 4 levers for action: developing glass sorting in major cities, modernising local collection, deploying incentive pricing and developing sorting outside the home. These levers will be based on encouraging people to sort glass, and on the commitment of local authorities so that each tonne of glass collected and recycled can save €130.

- Special types of glass such as that used for light bulbs, crystal, glass dishwashers, mirrors and glass ceramic must not be used in sector or glass packaging recycling because their characteristics (melting temperature for example) may disrupt the recycling of the glass and damage the quality of production. The same applies to porcelain and ceramics, which are also disruptive to glass recycling.
The material rate for this packaging or packaging unit is:

**MATERIAL RATE 6.1**

**BOTTLE AND VIAL IN CLEAR PET**

**EMBLEMATIC PACKAGING:**

**SORTING INSTRUCTIONS**

Bottles and vials have been included in national sorting guidelines since 1993.

**RECYCLING**

The recycling rate for bottles and vials from selective collection was 58% in 2018. Material whose recycling channel is very well established. The main challenge for the sector today: the management of sleeves on PET bodies (risk of non-recognition of the PET bottle and removal from the recycling channel).

**OUTLETS**

Recycled clear PET makes it possible to manufacture new PET packaging (bottles, trays, etc.) or fibre (polyester) used in the textile or automotive sector. In France, PET is the only plastic material that can be reused in packaging in contact with food.

**SORTING INSTRUCTIONS**

Bottles and vials have been included in national sorting guidelines since 1993.

**RECYCLING**

The recycling rate for bottles and vials from selective collection was 58% in 2018. Material whose recycling channel is very well established. The main challenge for the sector today: the management of sleeves on PET bodies (risk of non-recognition of the PET bottle and removal from the recycling channel).

**OUTLETS**

Recycled clear PET makes it possible to manufacture new PET packaging (bottles, trays, etc.) or fibre (polyester) used in the textile or automotive sector. In France, PET is the only plastic material that can be reused in packaging in contact with food.

**RATING AND ECO-MODULATION**

**Rate 6.1, Bottle and vial in clear PET: 28.88 €ct/kg**

<table>
<thead>
<tr>
<th>ACTION TAKEN</th>
<th>BONUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triman alone or with sorting guidelines block</td>
<td>5% Triman alone or 8% full sorting guidelines</td>
</tr>
<tr>
<td>Media awareness campaign</td>
<td>4%</td>
</tr>
<tr>
<td>Reduction at source</td>
<td>8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ISSUES</th>
<th>MAIN POTENTIAL ISSUES</th>
<th>PENALTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottles and vials in clear PET containing glass beads</td>
<td>Quality issues for recycled materials and deterioration of industrial tools</td>
<td>Penalty level 1: 10%</td>
</tr>
<tr>
<td>Rigid PET bottles, vials and packaging combined with aluminium, PVC or silicone with a density greater than 1</td>
<td>Quality issues for recycled materials and deterioration of industrial tools</td>
<td>Penalty level 2: 50% in 2020, Penalty level 3: 100% in 2021</td>
</tr>
</tbody>
</table>

**CITEO COMMITMENTS**

- Study on sleeves: integral sleeves have a negative impact on the recycling of PET bottles, regardless of their material. During the sorting phase, there is a risk that optical sorting may identify the material of the sleeve rather than that of the packaging body. During the recycling phase, the material of the sleeve disrupts the recycling of the PET or PE/PP caps. Citeo is working on this issue, in particular via a study on XPET sleeves and an R&D project on pre-cuts.
- “Vous triez, nous recyclons”: while PET bottles are 100% recyclable and 98% of French people know that they are sorted, only 1 out of 2 bottles is actually sorted and recycled. This led to the “Vous triez, nous recyclons” programme, a 3-year programme (2017-2019) to test innovative collection schemes and mobilise citizens to sort, in order to meet the EU’s target of 90% selective collection for the recycling of plastic bottles.

To find out more: [http://www.voustrieznousrecyclons.com/](http://www.voustrieznousrecyclons.com/)

**FIND OUT MORE**

PET is the acronym for polyethylene terephthalate, indicated by number 1 in the European classification of plastics.

Clear PET bottle resources are essentially used for mineral water or soft drinks bottles that are clear or light blue in colour.

PET bottles and vials are recognised by the injection point at the bottom of the bottle (vs. a weld line for a PE bottle).
The material rate for this packaging or packaging unit is:

MATERIAL RATE 6.2

BOTTLE AND VIAL IN COLOURED PET, IN PE OR PP

The recycling rate for bottles and vials from selective collection was 58% in 2018. Materials whose recycling channel is very well established. The main challenges for the sector today management of sleeves on the bodies of bottles and vials and quantity of opacifier used (opaque PET).

OUTLETS
From the collected PET, recycled PET used to manufacture textile fibres (polyester) will be obtained, and from PE and PP materials will be obtained to manufacture pipes, automotive parts, etc.

CITEO COMMITMENTS
- Opac PET: In 2017, Citeo launched a Call for Projects dedicated to opaque PET. The aim is to work on both: • eco-design of the packaging concerned (reduce or even eliminate any mineral content, adapt the colouring to the specifications of product launchers and recyclers)
- Recycling of opaque PET
- Citeo is also committed to the search for new outlets (return to packaging, chemical recycling, recycling to produce composite materials)

To find out more: https://www.citeo.com/le-mag/443
The material rate for this packaging or packaging unit is:

**RIGID PACKAGING IN PE, PP OR PET**

**MATERIAL RATE 6.3**

**EMBLEMATIC PACKAGING:**
- Rigid plastic packaging excluding bottles and vials is not included in national sorting guidelines. They cannot be deposited everywhere in sorting bins, but it is possible in areas that have transformed their local collection and sorting system (referred to as Sorting guideline extension areas).

**SORTING INSTRUCTIONS**
- Rigid packaging and PE and PP PET bottles have the same characteristics but have some special features – caps on pots and trays, for example – that may impact recycling. The challenges for the channel compatibility of associated materials (loss of quantity and quality of recycled material), dark packaging (not detectable during optical sorting).

**RECYCLING**
- Rigid packaging is characterised by a certain shelf life and resilience to distortion, with the exception of doypacks. The main part of the rigid packaging is generally thicker than 250 microns.

**SORTING INSTRUCTIONS**
- Rigid plastic packaging excluding bottles and vials is not included in national sorting guidelines. They cannot yet be deposited everywhere in sorting bins, but it is possible in areas that have transformed their local collection and sorting system (referred to as Sorting guideline extension areas).

**OUTLETS**
- Recycling channels are developing rapidly; there are already value-added outlets, identical to those for PE, PP and PET bottles. The challenge with the extended sorting guidelines is to include the new resources.

**FIND OUT MORE**
- Citeo commitments: Developing recyclability and recycling channels: Since 2012, Citeo has launched numerous calls for eco-design projects in order to prepare the integration of rigid plastic packaging into the national guidelines by 2022. Solutions to achieve 100% recyclable packaging are being studied, such as:
  - the switch to single-material and recyclable packaging;
  - the search for alternatives to dark dyes that cannot be detected by optical sorting.

To find out more: https://www.citeo.com/le-mag/sopraloop-une-usine-la-pointe-du-recyclage-des-emballages-en-pet

---

**RATE AND ECO-MODULATION**

**Material rate 6.3, Rigid packaging in PE, PP or PET: 33.3 €ct/kg**

**ISSUES**

<table>
<thead>
<tr>
<th>MAIN POTENTIAL ISSUES</th>
<th>PENALTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark, rigid plastic package not detectable by optical sorting, in particular containing carbon black</td>
<td>Penalty level 1: 10%</td>
</tr>
<tr>
<td>Rigid PE, PP plastic packaging with a density greater than 1</td>
<td>Material loss Penalty level 1: 10%</td>
</tr>
<tr>
<td>Rigid PET bottles, vials and packaging combined with aluminium, PVC or silicone with a density greater than 1</td>
<td>Quality of the recycled material and damage to industrial equipment Penalty level 2: 50% in 2020 Penalty level 3: 100% in 2021</td>
</tr>
<tr>
<td>Rigid opaque PET packaging with mineral filler greater than 4%</td>
<td>Market opportunities Penalty level 3: 100%</td>
</tr>
</tbody>
</table>

**CITEO COMMITMENTS**

- Developing recyclability and recycling channels: Since 2012, Citeo has launched numerous calls for eco-design projects in order to prepare the integration of rigid plastic packaging into the national guidelines by 2022. Solutions to achieve 100% recyclable packaging are being studied, such as:
  - the switch to single-material and recyclable packaging;
  - the search for alternatives to dark dyes that cannot be detected by optical sorting.

To find out more: https://www.citeo.com/le-mag/sopraloop-une-usine-la-pointe-du-recyclage-des-emballages-en-pet
The material rate for this packaging or packaging unit is:

**FLEXIBLE PE PACKAGING**

**SORTING INSTRUCTIONS**
Flexible plastic packaging is not included in national sorting guidelines. They cannot yet be deposited everywhere in sorting bins, but it is possible in areas that have transformed their local collection and sorting system (referred to as Extended Sorting Guidelines).

**RECYCLING**
The channel is under development in France. The main challenges for the channel: solving the problems of separability and compatibility of materials or resins other than PE (example of the tap for in bag in boxes, the handle on the films for grouping the drink packs) that can have an impact on recycling.

**OUTLETS**
Creation of new flexible PE films, bin bags, irrigation tubes.

**RATE AND ECO-MODULATION**
Material rate by weight 6.4 Flexible PE packaging: 36.08 €ct/kg

<table>
<thead>
<tr>
<th>ACTION TAKEN</th>
<th>BONUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triman alone or with sorting guidelines block</td>
<td>5% Triman alone or 8% full sorting guidelines</td>
</tr>
<tr>
<td>Media awareness campaign</td>
<td>4%</td>
</tr>
<tr>
<td>Reduction at source</td>
<td>8%</td>
</tr>
<tr>
<td>Integration of recycled material for PE</td>
<td>50% in 2020 for integrating 50% rPE</td>
</tr>
<tr>
<td></td>
<td>50% in 2021 for 50% rPE/rPP integration</td>
</tr>
<tr>
<td></td>
<td>50% in 2021 if the share from household packaging is at least 20%</td>
</tr>
</tbody>
</table>

**CITEO COMMITMENTS**
Developing the recyclability and recycling of flexible packaging
- A call for projects to improve the recyclability of multi-material doypacks and find solutions that are compatible with recycling for handles of films for grouping PE drink packs.
- A call for projects to design 100% recyclable PE packaging for the delicatessen sector.
- A call for projects to improve the outlets for recycling films in PE.

Citeo is also a member of the COTREP, the Centre for Resources and Expertise on Recyclability of Household Packaging in Plastics, which has been supporting packaging designers in the development of recyclable solutions for over 15 years.

To find out more: [https://www.citeo.com/le-mag/435](https://www.citeo.com/le-mag/435) and [https://www.citeo.com/le-mag/428](https://www.citeo.com/le-mag/428) and [https://cotrep.fr](https://cotrep.fr)
The material rate for this packaging or packaging unit is:

Materials Rate 6.5
PS Rigid Packaging

Material rate by weight 6.5 PS rigid packaging: 38.85 €/ct/kg

<table>
<thead>
<tr>
<th>ACTION TAKEN</th>
<th>BONUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorting guidelines block</td>
<td>8% full guidelines</td>
</tr>
<tr>
<td>Media awareness campaign</td>
<td>4%</td>
</tr>
<tr>
<td>Reduction at source</td>
<td>8%</td>
</tr>
<tr>
<td>Integration of recycled material</td>
<td>No bonus in 2020</td>
</tr>
<tr>
<td></td>
<td>20% bonus in 2021 for 50% rPS from household packaging</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ISSUES</th>
<th>MAIN POTENTIAL ISSUES</th>
<th>PENALTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark packaging in PS, not detectable by optical sorting, in particular containing carbon black</td>
<td>Loss of material at the sorting stage</td>
<td>Penalty level 1: 10%</td>
</tr>
</tbody>
</table>

Citeo Commitments

Develop the PS recycling channel: The Total group, Citeo, Saint-Gobain and Syndifrais, the French national union of manufacturers of fresh dairy products, are working to create a chemical recycling channel for polystyrene in France. Experiments are currently being conducted in Carling (57).

To find out more: https://www.citeo.com/le-mag/442

PS stands for Polystyrene, indicated by number 6 in the European plastics classification.

PS-based containers can be lightened by injecting inflating agents into them: this is referred to as XPS, Extruded Polystyrene, or PSE, Expanded Polystyrene, which has the same material rate.

SORTING INSTRUCTIONS
Rigid plastic packaging excluding bottles and vials is not included in national sorting guidelines. They cannot yet be deposited everywhere in sorting bins, but it is possible in areas that have transformed their local collection and sorting system (referred to as Extended Sorting Guidelines).

RECYCLING
The tonnes of PS packaging collected as part of the extension are now recycled in Germany and Spain. In France, this channel is just starting to take off with the first experiments.

OUTLETS
The challenge is to find opportunities with added value; opportunities are currently very limited (flower pots and hangers).
The material rate for this packaging or packaging unit is:

**MATERIAL RATE 6.6**

**COMPLEX PACKAGING OR OTHER RESINS EXCLUDING PVC**

This concerns bottles and vials, rigid and flexible packaging

---

**SORTING INSTRUCTIONS**

Plastic packaging excluding bottles and vials is not included in national sorting guidelines. They cannot yet be deposited everywhere in sorting bins, but it is possible in areas that have transformed their local collection and sorting system (referred to as Extended Sorting Guidelines).

**RECYCLABILITY**

This packaging has no recycling channel because it is by its very nature complex or the resource level is too low in a given region to justify setting up a channel. It may, however, be used to recover energy.

**OUTLETS**

Packaging without an existing recycling channel.

**RATE AND ECO-MODULATION**

Material rate by weight 6.6, Complex packaging or other resins excluding PVC: 41.63 €/ct/kg.

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>MAIN POTENTIAL ISSUES</th>
<th>PENALTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark, rigid complex packaging, not detectable by optical sorting, in particular containing carbon black</td>
<td>Loss of material at the sorting stage</td>
<td>Penalty level 1: 10%</td>
</tr>
</tbody>
</table>

**CITEO COMMITMENTS**

- Improve the recyclability of plastic packaging materials
  - Since 2012, Citeo has launched numerous calls for eco-design projects in order to prepare the integration of this plastic packaging into national guidelines, by 2022. Solutions to reach 100% recyclable packaging are being studied, and include the switch to single-material recyclable packaging.
  - This work continues with the new wave of calls for projects launched in 2019, in particular with R&D projects in the area of recycling, including pyrolysis, chemical recycling, etc., which can be an answer to these types of packaging.

To find out more:

---

Find the material rate for another packaging or another packaging unit.
The material rate for this packaging or packaging unit is:

**MATERIAL RATE 6.7**

**PACKAGING CONTAINING PVC**

**SORTING INSTRUCTIONS**
Plastic bottles and vials, including those containing PVC, are included in national sorting guidelines. However, only PET PE and PP resins have a recycling channel.

All other types of packaging containing PVC are not included in national sorting guidelines. As part of the Extending Sorting Guidelines programme, all this packaging may be sorted and could become disruptive recycling packaging. This packaging will arrive at the sorting centre and must be disposed of as quickly as possible so as not to impede flows.

**RECYCLING**
This PVC packaging has no recycling channel. In addition, unlike other plastics, energy cannot be recovered from PVC for the production of solid recovered fuel (SRF), the most efficient waste-to-energy solution, because of the chlorinated compounds in it.

**SORTING INSTRUCTIONS**
Plastic bottles and vials, including those containing PVC, are included in national sorting guidelines. However, only PET PE and PP resins have a recycling channel.

All other types of packaging containing PVC are not included in national sorting guidelines. As part of the Extending Sorting Guidelines programme, all this packaging may be sorted and could become disruptive recycling packaging. This packaging will arrive at the sorting centre and must be disposed of as quickly as possible so as not to impede flows.

**RECYCLING**
This PVC packaging has no recycling channel. In addition, unlike other plastics, energy cannot be recovered from PVC for the production of solid recovered fuel (SRF), the most efficient waste-to-energy solution, because of the chlorinated compounds in it.

**FIND OUT MORE**

PVC is the acronym for polyvinyl chloride, indicated by number 3 in the European classification of plastics.

PVC can be rigid or flexible, transparent or opaque, colourless or tinted, etc. It can be found in packaging such as bottles, vials, flexible and rigid films, boxes for greasy substances, boxes for pastries, certain wrapped trays for cold meats, blister packs etc.

**RATE AND ECO-MODULATION**

Material rate by weight 6.7, Packaging containing PVC: 48.57 €ct/kg

<table>
<thead>
<tr>
<th>ACTION TAKEN</th>
<th>BONUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorting guidelines block</td>
<td>18%</td>
</tr>
<tr>
<td>Media awareness campaign</td>
<td>4%</td>
</tr>
<tr>
<td>Reduction at source</td>
<td>8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ISSUES</th>
<th>MAIN POTENTIAL ISSUES</th>
<th>PENALTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark PVC packaging, not detectable by optical sorting, in particular containing carbon black.</td>
<td>Loss of material at the sorting stage</td>
<td>Penalty level 1: 10%</td>
</tr>
<tr>
<td>Bottle and vial in PVC</td>
<td>Packaging in 2020 in national sorting guidelines, but non-recyclable and non-recoverable</td>
<td>Penalty level 3: 100%</td>
</tr>
</tbody>
</table>

**CITEO COMMITMENTS**

- **Promoting the recyclability of packaging:**
  Since 2012, Citeo has launched numerous calls for eco-design projects in order to replace packaging containing PVC with recyclable packaging, via current or future channels, moving towards 100% recyclable packaging.

  To find out more: https://www.citeo.com/le-mag/428

- **Working on the recyclability of blister packs:**
  In the autumn of 2019, Adelphe, a Citeo subsidiary specialising in the pharmaceutical sector, will launch a working group dedicated to improving blister packs, the flagship packaging of the pharmaceutical industry, and mainly in PVC. Bringing together pharmaceutical companies, packaging producers, representatives of recycling channels and professional organisations, the group aims to improve the eco-design of this iconic packaging, and in particular its recyclability.
The material rate for this packaging or packaging unit is:

MATERIAL RATE 7.1
WOOD, CORK, TEXTILES AND OTHER MATERIALS

SORTING INSTRUCTIONS
This packaging is not included in national sorting guidelines. They will be sorted more widely as part of the Extended Sorting Guidelines.

RECYCLING
This packaging does not have an industrial recycling channel, in particular because the yield is too low. It may, however, be used to recover energy.

WOOD and cork are found in packaging specific: certain cheeses, vegetable trays and fruits, shells, some ice cream, and wines and champagnes. The wood like cork stoppers are materials natural, mostly from managed forests sustainably and therefore perfectly renewable.

On the other hand, the Citeo tariff takes into account the end of life of packaging, and not the renewable origin of the material. The weakness of the deposit of these materials in household packaging (10,000 tons out of the 5 million tonnes of household packaging placed on the French market each year) does not allow not today to create a recycling channel dedicated in France.

Once sorted these wooden packages will join an energy recovery sector called CSR (Solid Recovery Fuel) which benefits from their high calorific value. The wooden packaging can also join some industrial composting processes, still in the process of being little developed in France. Finally, reuse of these packages is common practice for households as well as for professionals, such as of the winegrowers and their cases of wine.

It should be noted that there is a solidarity sector for collect the cork from the corks. The caps are resold by the collection centres to the French cork manufacturers and the collection is transported to Portugal, which processes cork used as insulation. The money raised makes it possible to finance charitable actions or in favour of the sustainable development such as the planting of cork oaks in the south of France by Institut Méditerranéen du Liège.

FIND OUT MORE
EMBLEMATIC PACKAGING:

Price Material by weight 7.1 Wood, cork, textiles and other materials: 41.63 €ct/kg

ACTION TAKEN | BONUS
--- | ---
Sorting guidelines block | 8% of full guidelines
Media awareness campaign | 4%
Reduction at source | 8%
The material rate for this packaging or packaging unit is:

**EMBLEMATIC PACKAGING:**

- **SORTING INSTRUCTIONS**
  - This packaging is not included in national sorting guidelines. They will be sorted more widely as part of the Extended Sorting Guidelines.

- **RECYCLING**
  - This packaging does not have recycling channels. In particular, they disrupt the recycling of glass. It cannot, however, be used to recover energy.

**FIND OUT MORE**

Porcelain, ceramics and stoneware have a melting temperature higher than that of the glass and deteriorate production quality.

**RATE AND ECO-MODULATION**

<table>
<thead>
<tr>
<th>ACTION TAKEN</th>
<th>BONUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sorting guidelines block:</td>
<td>8% of 1L guidelines</td>
</tr>
<tr>
<td>Media awareness campaign</td>
<td>4%</td>
</tr>
<tr>
<td>Reduction at source</td>
<td>8%</td>
</tr>
</tbody>
</table>

*Material rate by weight 7.2 Stoneware, porcelain, ceramic: 48.57 €ct/kg*
Printed on recycled paper.
All papers should be sorted and recycled.
This one too!

CITEO
Donnons ensemble une
nouvelle vie à nos produits.

www.citeo.com