

General Notice

Use of an aluminium component in rigid PET packaging

The aim of this General Notice is to determine the impact of an aluminium component associated with rigid PET packaging on the PET recycling stream. It concerns seals, lids, hidden parts in the product dispensing system, and rings used to withstand compressed gas, etc. that can be found on bottles and other rigid PET packaging items.

COTREP states that this notice does not concern:

- aluminium elements in flexible PET packaging and films that will not be recycled by 2022.
- inks and aluminium pigments that will be the subject of a specific General Notice.

With the current state of recycling equipment and techniques used and available in Europe, **the presence of aluminium significantly disrupts PET packaging recycling.**

COTREP strongly advises against using this type of element in rigid PET packaging and recommends a study on alternative elements that take into account the compatibility of materials with one another. It advises manufacturers to make it easier for consumers to separate elements containing aluminium from the packaging body, particularly by working on seals with tabs or plastic/aluminium blend seals that are impossible to pierce.

SORTING AND RECYCLING POTENTIAL












Although some aluminium elements are designed to be removed by the consumer when the product is used, the risk of finding these elements or pieces of these elements on the packaging when it arrives at the sorting centre and/or recycler needs to be analysed on a case-by-case basis, and measures need to be taken to minimise this risk.

At the sorting centre, most PET packaging items with an aluminium component will be channelled to PET recycling streams, and will disrupt recycling of the latter.

According to the quantities of aluminium in the packaging and the sorting centre settings, some packaging will be channelled to the aluminium recycling stream, where the PET will not be recycled.

The table below shows the impact of aluminium elements at the PET reprocessing plant.

Summary table of impacts during reprocessing

Recycling stage	Impact	Description	Consequences
 Tri sur emballages		1 aluminium element detected → Up to 5 aluminium-free PET packaging items ejected	Increase in losses → Loss of material, increase in waste to be processed
 Prélavage	∅		
 Broyage	∅	Abrasive to the grinder blades	→ Equipment wear
 Flottation	∅	The aluminium particles are not eliminated and remain in the PET stream	PET stream pollution
 Lavage	∅		
 Tri sur palettes		1 aluminium flake detected → Up to 1,000 PET flakes ejected	Increase in losses → Loss of material, increase in waste to be processed
 Granulation <i>(optional)</i>  Recyclage		Presence of aluminium flakes: → Clogging of filters → Clogging of the die → Faults in appearance → Holes, etc.	Disruption of the process: → Increase in machine stoppages Quality defect: → Loss of material, increase in waste to be processed

 : Caution

∅: No impact → **Environmental and economic consequences**