

WEBINAR “MITHS & FACTS ABOUT PET TRAY RECYCLING”

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QUESTIONS & ANSWERS

[Q] What message about recyclability can be displayed in the packaging by the manufacturer?

Environmental self-declarations (eco-labelling type II) is a good mean to provide information on packaging recyclability to consumers. The RETRAY certification is classified in this type of eco-label.

[Q] What about PET that has already been recycled 5 times and it is degraded? How is it managed and how is it removed from the flow (*PET that has already been recycled five times*)?

The number of cycles is not distinguished within the PET flow. All the material is processed and has an average thermal history. In the processing of the material, the PET that breaks more easily is the one that has undergone the most thermal cycles. Having a small size, it disappears from the flow with the rest of the fines that are removed.

This is a common situation in the recovery of materials, no matter if it is plastic, glass, metal or paper.

[Q] What is CITEO based on to ensure that multilayer material is non-recyclable?

In most of the municipal waste management systems in Europe, there is not a dedicated channel for thermoformed PET trays. Trays are integrated in the PET bale together with bottles. From this point of view and in practice, it could be said that no tray is recyclable (monolayer or multilayer).

PET trays, no matter if monolayer or multilayer, have an intrinsic viscosity and a lower thickness than PET bottles. It is technically unfeasible to recycle a mix of trays and bottles in the same process. For reasons that we do not understand, CITEO considers that the single-layer tray is closer to the concept of bottle which it is recyclable from a practical point of view since it has a management channel created. Within the PET bottle flow, the PE of the multilayer material is considered an impurity.

In the framework of the Circular Plastics Alliance, it is worth to note that two recyclability concepts are used: “technically recyclable” and “practically recyclable”, concepts that mirror the situation of the PET tray. According to this, the monolayer and multilayer PET trays are nowadays “technically recyclable” since there is available technology and there are industrial facilities in Europe for this purpose (although only a few ones). On the other hand, PET trays are “practically recyclable” since there is not an acceptable cost-effective system to collect, sorting, recycling and reintroduction of recycled material (from PET trays) into new products (PET trays).

[Q] Why is widely thought by our customers that multilayer material is non-recyclable? What arguments do we have to us in order to demonstrate that multilayer material is recyclable too?

It is widely thought because nowadays the volume of PET tray recycling is very low (compared to the production volume) and the PET tray is associated with multilayer material.

PET tray can be recycled (in fact, SULAYR recycle PET trays since 2009). Based on the answer to the previous question, it is “technically recyclable” and this must be communicated to the final consumer so that the consumer can internalize this information. Furthermore, it is necessary to make the PET tray “practically recyclable” and work in the period 2020-2030 to create the appropriate management channel.

[Q] Related to the “chasing arrows” symbol, a PET/PE tray with less than 10% of PE has to be identified with the number 7 (other plastics) or with the number 1 (PET)?

The PET tray is, by weight, mostly PET. In Spain, ECOEMBES establishes for composite containers (container made up with different materials not capable of being separated by hand) whose majority composition by weight is rigid PET that *"the total of the composite container will be quoted at the rate of the material whose weight is the majority"*, in this case, PET. Since by sorting and classification the PET tray it is included in the PET bale, along with PET bottles, this type of container should be identified with the number 1 in the chasing arrows symbol, for consistency,

[Q] Can PP trays only be recycled by pyrolysis?

If it is wanted to use the recycled PP material in a food contact loop, this must be done by thermochemical conversion in an oil refining and synthesis facility that produces PP.

Regarding the conditions that recycled plastics must meet for their use in materials and products to come into food contact, at the moment EFSA has only validated recycling processes for PET and not for other polymers.

Mass media is reporting the recycling and use of PP in automotive parts, outdoor furniture, etc.

PP mechanical recycling enables the use of recycled material in applications within sectors others than food. In sectors such as automotive, where there is no pressure for the use of recycled material and the price of virgin material and recycled material are very similar, virgin material is most used.

Why is mechanical recycling not feasible in (non-food) injection applications?

It is feasible as far as the price scenario will be favourable.

Is mechanical recycling not economically feasible for PP?

As the recycling product is downcycling (lower price applications than food), it is necessary to analyse the feasibility of the recycling project. Even more in the current scenario of low oil prices.

[Q] Tengo entendido que el papel puede migrar los aceites minerales MOSH y MOAH. ¿Existe esta migración con la capa de plástico? ¿hay dificultad de reciclado de este laminado?

It is said that paper can migrate MOSH and MOAH mineral oils. Does this migration exist with the plastic layer? Is there any difficulty in recycling this laminate?

There is no such migration with the plastic layer. There is a control of MOSH and MOAH, which the manufacturer must declare.

Paper-plastic laminate is usually non-recyclable. The plastic in a paper stream is a contaminant. And vice versa.

[Q] Where does it go the PET trays (...)?

The post-consumer tray fraction is divided between the bales of the mixed plastics fraction and the bales of the PET bottle fraction, although it locates mainly within the PET bottle bales due to its majority weight in PET.

Does (ECO)EMBES have a tray flow?

Currently, ECOEMBES does not have a dedicated channel for PET trays.

Does it go (...) plastics? Do you have a PET tray stream?

Yes, indeed. SULAYR has a post-consumer PET tray flow from some bottle recyclers that separate them. This has been achieved by specific agreements between bottle recyclers and SULAYR, but it cannot be said that this will be a widespread practice and cannot be stated that there is an adequate management channel already established. Only FostPlus, ECOEMBES's counterpart in Belgium, currently generates a differentiated tray flow, a practice that should be extended to the rest of European countries, including Spain, since there is technology available to carry out this sorting and there is technology available to carry out its recycling. In Europe, there are some bodies (such as COREPLA or VALORPLAST) that have already had experience in PET tray sorting.