



Brussels, June 10th, 2020

The Technical Committee of the European PET Bottle Platform (EPBP) was requested to evaluate the effect on the quality of recycled PET of PET labels and sleeves with washable inks. The evaluation was of a clear PET label substrate printed with a caustic-washable ink. During the recycling process, the printing should be removed by hot caustic washing and friction, whilst the clear PET substrate is recovered, and hence increases the recycling yield.

After extensive evaluation of the data supplied, the Technical Committee of the EPBP decided not to endorse this label solution for PET bottles, coming to the conclusion that the recycling value chain is negatively impacted by this packaging solution:

- Solid particles or inks bleeding into the washing water are a challenge for both recycling plants and recycled PET end users. Recycled plants must ensure removal them from the water to prevent black specs generation in recycled PET and potential non-intentionally added substances (NIAS) issues from inks if the recycled PET is used in food contact applications. Potentially, any label could be printed with any washable ink, there is little control on the ink chemistry or requirement for inks to be food contact approved and stable enough not to decompose when recycled PET is further processed.
- The European Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 dictates a minimum recycled content for PET beverage bottles and, combined with the strict European Union regulations for plastics in contact with food, the European beverage industry requires a stable supply of high quality rPET suitable for food contact applications.
- As recycling plants recirculate water after treatment, any contamination could become worse with time and increased market penetration of these solutions, this due to accumulation effects. All tests so far have been lab scale and there is no information on the long-term effects on industrial plants.



- The benefit of increased recovery is questionable, because PET recyclers use air elutriators to remove the residual labels that are not removed by flotation. There is a high chance that deinked label flakes are simply removed and become a contaminant in the mostly olefin-based label stream.
- Even if they are retained, efficiency of ink removal is dependent on individual recycling plant processing conditions and are not the same in all plants. It is possible that plants using lower washing temperatures, lower residence times, lesser amounts of wash chemicals or less friction are not able to effectively de-ink the labels.

The EPBP reserves the right to update and change the conditions of this endorsement at any time, in accordance to the most recent technologies, assessments and experience.

The European PET Bottle Platform EPBP is a voluntary industry initiative that provides PET bottle design guidelines for recycling, evaluates PET bottle packaging solutions and technologies and facilitates understanding of the effects of new PET bottle innovations on recycling processes. This initiative fully supports the economic and environmental sustainability of the European PET value chain.