From: (CAB-TIMMERMANS) (CAB-SINKEVICIUS) To: Cc: (CAB-TIMMERMANS) RE: Use of recycled plastics behind a barrier - your question at our meeting in October Subject: Date: mardi 15 novembre 2022 18:44:59 Attachments: image002.png image003.jpg Dear Thank you very much for the additional information, which we have shared also with other relevant colleagues. Kind regards, Executive Vice-President Frans Timmermans **European Green Deal European Commission** Visit Frans Timmermans' personal webpage, Twitter and Facebook page! From: @flexpack-europe.org> Sent: Tuesday, November 15, 2022 6:06 PM (CAB-TIMMERMANS) < To: @ec.europa.eu>; (CAB-SINKEVICIUS) < @ec.europa.eu> (CAB-TIMMERMANS) < @ec.europa.eu> Subject: Use of recycled plastics behind a barrier - your question at our meeting in October Dear Dear

With some delay, I wanted to thank you for your time and interest in flexible packaging sustainability. A question was raised during our meeting about the possibility of using mechanically recycled plastic behind a barrier in food packaging.

Please find below a short description and explanation of the issue and why simply using a barrier is not a solution in terms of food safety.

- 1. For contact-sensitive plastic packaging applications, there are legal restrictions on recycled content from mechanical recycling
- As you may know, mechanically recycled content is <u>not</u> currently authorised for use in food contact flexible plastic packaging, **including behind a barrier**.

commission Regulation (EU) 2022/1616 now requires that mechanically recycled content behind a functional barrier be assessed as a 'novel recycling technology' (or subject to additional testing), before it can be authorised as a 'suitable recycling technology' providing safe recycled content in food contact materials. Completion of the full procedure could take up to 7 years even for an existing recycling operation: 2-4 years to collect data from sampling of plastic input batches and decontaminated output batches (where there is not yet unequivocal evidence that the functional barrier provides the necessary protection); 1-2 years for EFSA to assess the suitability of the technology; and potentially a year for the Commission to authorise it and update the Regulation.

- Prior to adoption of Commission Regulation (EU) 2022/1616, we would also observe that EFSA has so far granted only a few limited approvals for use of rPE and rPP in food contact. In general, they have only been for materials from dedicated collection or closed systems (e.g. crates for produce). This history reflects some of the challenges of safe mechanically recycled PO.
- In practice, the use of recyclates behind a barrier is not preferred for foodstuff based on the precautionary principle. There are also concerns about the barrier causing recyclability issues and the fact that it inevitably results in more packaging material used without no strict functional need.
- Therefore, the use of mechanically recycled content behind the barrier would only be possible after EFSA authorisation under the new Regulation. The Regulation will also have to assess under which conditions this could safely take place, which may cover only less challenging applications from a migration perspective (dry or frozen food) and not all food packaging.
- 2. We also want to use the occasion to explain the distinct technical challenges to overcome before mechanically recycled content can be safely incorporated in flexible polyolefin packaging without a functional barrier

Approximately 70%-80% of household flexible packaging placed on the market in 2019 was reported as polyolefin-based (PE, PP). The use of mechanically recycled polyolefins in flexible packaging should be seen as distinct to other polymers. Some of the distinguishing characteristics of flexible polyolefin packaging which pose technical challenges are:

- About half of primary food packaging units on the European market are flexible, predominantly plastic, however not all PE or PP on the market is food grade
- Some food grade PE and PP is used in non-contact sensitive applications, meaning it can no longer be considered as feedstock for recycling into food grade
- It is generally not collected in a dedicated food packaging-only stream
- PE and PP are comparably permeable to contaminants, meaning they do not on their own form a barrier and have a higher propensity than other polymers to absorb contaminants
- Flexible PO packaging is much thinner, which has the benefit of using the minimum amount of material needed to protect a product, but also that the proportion of potential contaminant to plastic is higher than other formats.
- Flexible packaging is generally produced in reels which are then later formed into pouches/packs – inside and outside surfaces touch in the reel exposing it to contaminants

- Many food applications for flexible packaging present strong conditions for migration of substances from the packaging:
  - o Liquid foods or foods with free fat on the surface
  - o Hot fill, in-pack pasteurization and in-pack sterilization applications
  - o Often very long shelf lives

Thank you once again and I remain available for any further questions.

Best,

