

*Silgan Plastic Food Containers*

RECYCLASS TECHNOLOGY APPROVAL

Brussels, 25 August 2021

## DISCLAIMER

*RecyClass recognition applies only to Silgan Plastic Food Containers “Perfect Portion” technology reported in Annex I. It, therefore, does not concern to a recyclability assessment of specific packaging using this tray. Any specific packaging using this tray would need to be tested individually to demonstrate that the system of resin, adjuvants, label, closure, and printing conforms to the RecyClass Recyclability Evaluation Protocol for PP containers, and that it is sorted in the PP rigid stream at the state-of-art sorting plants in Europe.*

*Publication of results of testing of this technology MUST clearly include all the conditions listed in the approval letter. Partial reporting of the conditions is forbidden.*

*Additionally, any change in the formulation of the technology must be communicated to the Technical Committee which will reassess the approval of the technology.*

The RecyClass PP Technical Committee was requested to carry out an assessment of the technology ‘Perfect Portion’ by Silgan Plastic Food Containers to verify its impact on the quality of recycled PP containers.

The technology is a white coextruded PP tray, provided unprinted and without lid. The EVOH-barrier layer is 10% of the total weight and PP regrind layers are incorporated in the tray structure.

According to the results that were obtained from the laboratory tests done by the Institut für Kunststofftechnologie und -recycling (IKTR), carried out as per the Recyclability Evaluation Protocol for PP containers, ‘Sheba Perfect Portion’ technology is considered to be **limited compatible with coloured PP recycling**.

Based on these results, RecyClass certifies that Silgan Plastic Food Containers’ ‘Perfect Portion’ technology will have a limited impact on the current European coloured PP containers recycling and provided that the full packaging using this tray as the body is designed under the following conditions:

- a) The tray is made of white PP;
- b) The tray is provided with an EVOH layer that is 10% of the total weight, compatibilized with more than 5% PP tie layers grafted with a minimum concentration of 0,05% of maleic anhydride;
- c) The tray contains PP regrind layers including EVOH, reaching an overall maximum EVOH concentration equal to 19 wt%, and provided with compatibilizer (RG 100);

- d) The amount of mineral fillers is lower than 7,5wt%;
- e) The density of the finished tray is lower than 1 g/cm<sup>3</sup>;
- f) The lidding film is fully removable and does not leave any residue;
- g) Applied printing technology is compatible with recycling; since several printing options are possible, it is the responsibility of the end-user to choose an appropriate combination of inks and printing process to ensure that:
  - i. the inks are non-bleeding;
  - ii. the inks comply with the European Legislation (e.g. Packaging and Packaging Waste Directive on the heavy metal concentration levels) and are EUPIA compliant;
  - iii. direct printing is limited as much as possible, using preferably light colours.

RecyClass concludes that Silgan Plastic Food Containers's 'Perfect Portion' technology as per current market conditions and knowledge, is limited compatible with the existing European industrial recycling processes for coloured PP containers. Indeed, the recycled plastic generated after the recycling process was successfully tested in both injection moulding and sheet-extrusion applications<sup>1</sup>.

**It should be noteworthy that extensive printing reduces the quality of recycled plastic generated by the tray, by limiting its compatibility with PP recycling.**

*About*

**RecyClass** is a comprehensive cross-industry initiative that works to advance plastic packaging recyclability and to establish a harmonized approach towards recycled content calculation and traceability in Europe. Activities within RecyClass include the development of Recyclability Evaluation Protocols and scientific testing of innovative materials which serve as the base for the Design for Recycling guidelines and the free online tool. RecyClass offers Recyclability Certifications and Recycled Content Traceability Certification for plastic packaging.

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<sup>1</sup> [Recyclability Evaluation Protocol for PP containers](#)

## Annex I



*Figure 1 'Perfect Portion' by Silgan Plastic Food Containers*