

Albéa

RECYCLASS TECHNOLOGY APPROVAL

Brussels, 12 May 2021

DISCLAIMER

RecyClass recognition applies only to Albéa 'HDPE tube with HDPE flip-top cap' technology reported in Annex I. It, therefore, does not concern to a recyclability assessment of specific packaging using this tube. Any specific packaging using this tube would need to be tested individually to demonstrate that the system of resin, adjuvants, label, and printing conforms to the RecyClass Recyclability Evaluation Protocol for HDPE containers, and that it is sorted in the HDPE 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 HDPE Technical Committee was requested to carry out an assessment of the technology 'HDPE tube with HDPE flip-top cap' by Albéa to verify its impact on the quality of recycled HDPE containers.

The technology is an unprinted and white coextruded HDPE tube provided with HDPE shoulders and a HDPE flip-top cap. The EVOH barrier concentration is around 3% of the total weight of the packaging, with around 5% PE tie layers grafted with at least 0,1 % maleic anhydride.

According to the results that were obtained from the laboratory test by the Institut für Kunststofftechnologie und -recycling (IKTR), carried out as per the Recyclability Evaluation Protocol for HDPE containers, 'HDPE tube with HDPE flip-top cap' technology is considered to be **fully compatible with coloured HDPE recycling.**

Based on these results, RecyClass certifies that Albéa 'HDPE tube with HDPE flip-top cap' technology will not have a negative impact on the current European coloured HDPE containers recycling and provided that the full packaging using this tube as the body is designed under the following conditions:

- a) The tube and its shoulders are made of clear or white PE, with a prevalence of HDPE;
- b) The maximum EVOH concentration is below 3 wt% and provided by 5wt% PE tie layers, grafted with a minimum concentration of 0,1% of maleic anhydride;
- c) The density of the finished tube is lower than 1 g/cm³;
- d) The flip-top cap is made of clear or white blow molding grade HDPE;

- e) 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 Albéa ‘HDPE tube with HDPE flip-top cap’ technology as per current market conditions and knowledge, is fully compatible with the existing European industrial recycling processes for coloured HDPE containers. Indeed, the recycled plastic generated after the recycling process was successfully tested in high-value application such as HDPE bottles up to 25% concentration¹.

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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¹ [Recyclability Evaluation Protocol for HDPE containers](#)

Annex I



Figure 1 HDPE tube with HDPE flip-top cap by Albéa