

Gualapack

RECYCLASS TECHNOLOGY APPROVAL

Brussels, 10 January 2023

Reviewed: Brussels, 28 December 2023

DISCLAIMER

RecyClass recognition applies only to Gualapack 'Laminate InnowebMONO 290met' technology reported in Annex I. The recyclability assessment therefore does not refer to the testing of a 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, 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 'Laminate InnowebMONO 290met' by Gualapack to verify its impact on the quality of recycled PP containers.

The technology is a laminated tube, provided with a PP shoulder and flip-top cap. The laminate is composed of PP layers and a solvent-based aromatic laminating adhesive that represents less than 0.9 % of the total weight of the packaging. The tube is metallised with an optical density of the metallised layer below 2.8. The tube is not printed nor decorated.

According to the results that were obtained from the laboratory test the Institut für Kunststofftechnologie und -recycling (IKTR), carried out as per the Recyclability Evaluation Protocol for PP Containers¹, the 'Laminate InnowebMONO 290met' technology is **limited compatible with coloured PP recycling**. Additionally, the sortability of the packaging has been tested by CIRCPACK following the RecyClass Sorting Protocol². The results showed that 89 % of the tubes were successfully sorted in the PP rigid stream.

¹ [Recyclability Evaluation Protocol for PP Containers](#)

² [Sorting Evaluation Protocol for Plastic Packaging](#)

Based on these results, RecyClass acknowledges that Gualapack 'Laminate InnowebMONO 290met' will have no negative impact on the current European PP coloured containers recycling and provided that the packaging is designed under the following conditions³:

- a) The tube and its cap are made of PP;
- b) The density of the packaging is lower than 1 g/cm³;
- c) The laminating adhesive is a solvent-based aromatic polyurethane, and represents less than 0.9 % of the total weight of the packaging;
- d) The metallised layer has an optical density of 2.8, or less;
- e) Any additional component or features (e.g., inks, adhesives, etc.) of the packaging must be compliant with the corresponding RecyClass Design for Recycling Guidelines⁴.

RecyClass concludes that Gualapack 'Laminate InnowebMONO 290met' 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 injection moulding applications up to a concentration of 50 % of innovation⁵.

In regard to RecyClass Recyclability Certification, the present limited compatibility with coloured PP containers recycling delivered to Gualapack 'Laminate InnowebMONO 290met' technology, means that a packaging containing this technology, as mentioned in the aforementioned conditions will be penalised with one Recyclability Class downgrade. Nevertheless, the amount of recyclable PP will impact the final Recyclability Class obtained during Recyclability Certification and should be kept above 95% or 90 % in the final packaging to maximise chances to get a Recyclability Certificate with a Class B or C, respectively⁶. Also, it should be noteworthy that the presence of additional packaging features could impact the certification process.

³ PP Rigid designed under conditions other than those indicated need to be tested to assess their compliance with RecyClass Recyclability Evaluation Protocol for PP containers.

⁴ [Design for Recycling Guidelines - RecyClass](#)

⁵ [Recyclability Evaluation Protocol for PP Containers](#)

⁶ [RecyClass Recyclability Certification](#)

About RecyClass

RecyClass is a non-profit, cross-industry initiative advancing recyclability, bringing transparency to the origin of plastic waste and establishing a harmonized approach toward recycled plastic calculation & traceability in Europe. RecyClass develops Recyclability Evaluation Protocols and scientific testing methods for innovative plastic packaging materials which serve as the base for the Design for Recycling Guidelines and the RecyClass Online Tool. RecyClass established Recyclability Certifications for plastic packaging, Recycling Process Certification and Recycled Plastics Traceability Certification for plastic products.

[RecyClass – Plastic Future is Circular](#)

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Annex I

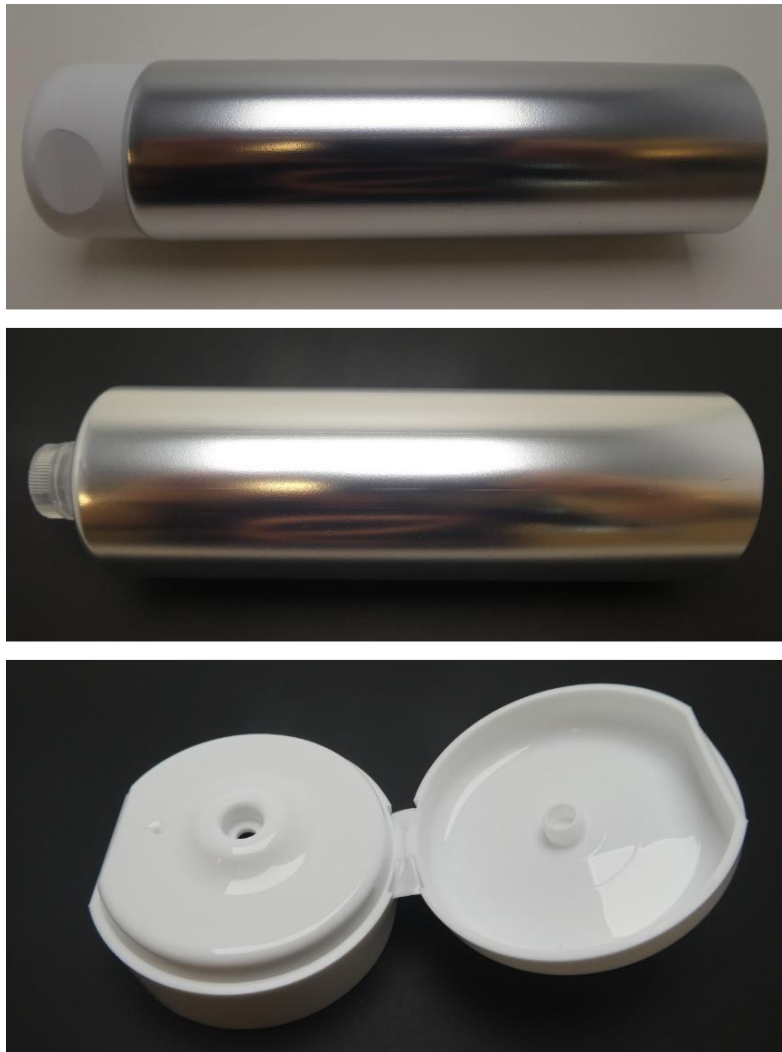


Figure 1. 'Laminate InnowebMONO 290met' metallised laminated tube by Gualapack