

Neopac

RECYCLASS PRODUCT APPROVAL

Brussels, 3 December 2020

Reviewed: Brussels, 27 June 2023

DISCLAIMER

RecyClass recognition applies only to Neopac 'Polyfoil® MMB Tube PF542/642' product reported in Annex I. The recyclability assessment therefore does not refer to the testing of a specific artwork or size of this packaging. Any changes in the formulation of this packaging, not falling under the scope of this approval letter, 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 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 product 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 product must be communicated to the Technical Committee which will reassess the approval of the product.

The RecyClass HDPE Technical Committee was requested to carry out an assessment of the product 'Polyfoil® MMB Tube PF542/642' by Neopac to verify its impact on the quality of recycled HDPE containers.

The product is a laminated tube, provided with HDPE shoulders and PE cap. The tube is white-coloured and direct printed. The EVOH barrier concentration is below 4 % of the total weight of the packaging, with more than 3 % PE tie layers grafted with at least 0,1 % maleic anhydride. Laminated adhesive is PU based, solvent free and represents less than 1 wt%.

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, the 'Polyfoil® MMB Tube PF542/642' product is considered to be **fully compatible with coloured HDPE recycling.**

Based on these results, RecyClass acknowledges that Neopac 'Polyfoil® MMB Tube PF542/642' will not have a negative impact on the current European HDPE containers recycling and provided that the packaging is designed under the following conditions:

- a) The tube and its shoulders are made of clear or white HDPE;
- b) The maximum EVOH concentration is below 4 wt% and provided by more than 3 wt% PE tie layers, grafted with a minimum concentration of 0,1 % of maleic anhydride;
- c) The laminated adhesive is PU based, solvent free and represents less than 1 wt%;
- d) The density of the finished tube is lower than 1 g/cm³;

- e) The cap is made of clear or white PE;
- f) Any additional component or features (e.g. inks, adhesives, etc) of the packaging must be compliant with the corresponding RecyClass Design for Recycling Guidelines.

RecyClass concludes that Neopac 'Polyfoil® MMB Tube PF542/642' 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.

However, RecyClass recommends to review and further reduce the direct printing applied on the tube. Direct printing is to be avoided, as it leads to colouring of the recycle, limiting its further applications.

According to the RecyClass Recyclability Methodology² developed by RecyClass, 'Polyfoil® MMB Tube PF542/642' corresponds to a class ranking **A**. However, this letter is not a certification and does not allow the use of the class ranking logo. Therefore, *Neopac* is invited to contact one of the recognized Certification Bodies to get 'Polyfoil® MMB Tube PF542/642' product certified.

Similar executions of 'Polyfoil® MMB Tube PF542/642' product with the only modification of artworks and/or modification of the packaging size would not have to be tested again as long as the proportion of the components, including inks, lacquer, adhesives, remains the same.

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](#)

Follow the latest news on RecyClass channels: [LinkedIn](#) | [Twitter](#) | [YouTube](#)

Contact : Jean-Emile.Potaufeux@plasticsrecyclers.eu, www.recyclclass.eu

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

² [Recyclability Methodology of RecyClass](#)

Annex I



Figure 1. Polyfoil® MMB Tube PF542/642 with cap by Neopac.