RecyClass

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Leonhard Kurz

RECYCLASS TECHNOLOGY APPROVAL

Brussels, 23 November 2021
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DISCLAIMER

RecyClass recognition applies only to Leonhard Kurz 'Cold Transfer with EP Platina 3015' technology 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 technology 'Cold Transfer with EP Platina 3015' by Leonhard Kurz and EPL to verify its impact on the quality of recycled HDPE containers.

The technology is a laminated tube, provided with HDPE shoulders and PE cap. The tube is white-coloured and direct printed and decorated via cold transfer on approximately 70 % of the tube surface (i.e. 0.63 % of the total weight). The EVOH barrier concentration is about 4.4 wt% of the tube body.

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 'Cold Transfer with EP Platina 3015' technology is fully compatible with coloured HDPE recycling. Additionally, the sortability of the packaging has been successfully tested by Suez.Circpack® following the RecyClass Sorting Protocol[1].

Based on these results, RecyClass acknowledges that Leonhard Kurz 'Cold Transfer with EP Platina 3015' will have no 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 4.4 wt% respect to the tube total weight;

[1] Sorting Evaluation Protocol for Plastic Packaging

c) The density of the finished tube is lower than 1 g/cm^3;

d) The cap is made of clear or white PE;

e) Cold transfer decoration represents up to 70 % of the total body packaging surface coverage and is maximum 0.63 % by weight of the total tube weight;

f) The decoration is preferably silver coloured, or light color shade (such as light gold colours);

g) Any additional component or features (e.g. inks, adhesives, etc) of the packaging must be compliant with the corresponding RecyClass Design for Recycling Guidelines[2].

RecyClass concludes that Leonhard Kurz 'Cold Transfer with EP Platina 3015' 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 % concentration[3].

In regard to RecyClass Recyclability Certification, the present full compatibility with coloured HDPE containers recycling delivered to Leonhard Kurz 'Cold Transfer with EP Platina 3015' technology, means that a packaging containing this technology, as mentioned in the aforementioned conditions will not be penalised with any Recyclability Class downgrade. Moreover, the amount of recyclable PE 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 A or B, respectively[4]. Also, it is noteworthy that the presence of additional packaging features could impact the certification process.

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[2] Design for Recycling Guidelines - RecyClass

[3] Recyclability Evaluation Protocol for HDPE containers

[4] RecyClass Recyclability Certification

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Annex I

Figure 1: Cold Transfer with EP Platina 3015 with cap by Leonhard Kurz.