RecyClass

c/o Plastics Recyclers Europe
Avenue de Broqueville 12
1150 Brussels, Brussels

Phone: +32 2 315 24 60
info@recyclass.eu
www.recyclass.eu

Huhtamaki & Plastuni Lisses

RECYCLASS TECHNOLOGY APPROVAL

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The RecyClass HDPE Technical Committee was requested to carry out an assessment of the technology 'PBL 220' by Huhtamaki and Plastuni Lisses, member of Somater Group, to verify its impact on the quality of recycled HDPE containers.

The technology is a laminated tube, provided with both HDPE shoulders, and a HDPE cap and presenting light direct printing. The EVOH barrier concentration is below 3% of the total weight of the packaging, with more than 1.5% 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, the 'PBL 220' technology is considered to be fully compatible with HDPE recycling.

Based on these results, RecyClass certifies that Huhtamaki and Plastuni Lisses 'PBL 220' technology will not have a negative impact on the current European 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;
b) The maximum EVOH concentration is below 3 wt% and provided by more than 1,5 wt% 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/cm^3;
d) The cap is made of clear or white PE;
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 (see Annex I);

RecyClass concludes that Huhtamaki and Plastuni Lisses 'PBL 220' technology as per current market conditions and knowledge, is fully compatible with the existing European industrial recycling processes for 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[1].

RecyClass recognition applies only to Huhtamaki and Plastuni Lisses 'PBL 220' technology reported in Annex I and is not a recyclability assessment of specific packaging using this tube as body. Any specific packaging using this tube as body would need to be tested individually to demonstrate the system of resin, adjuvants, label, closure, and printing conformed to the RecyClass Recyclability Evaluation Protocol for HDPE containers, and that it is sorted in the HDPE stream at the state of art sorting plants in Europe.

Any change on the formulation of the technology must be communicated to the Technical Committee which will reassess the approval of the technology.

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.
Contact: Alice.Wallon@plasticsrecyclers.eu, www.recyclass.eu

[1] Recyclability Evaluation Protocol for HDPE containers

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Annex I

Figure 1 PBL 220 tube with cap by Huhtamaki and Plastuni Lisses