

Platina 3015 laminated HDPE tube: new technology approval by RecyClass

The RecyClass HDPE Technical Committee was requested to carry out an assessment of the technology 'Platina 3015' by Essel to verify its impact on the quality of recycled HDPE containers. The innovative packaging is a multi-layer laminate tube made with EVOH barrier concentration of 4.4% of the total weight of the package.

According to the results that were obtained from the laboratory tests by Plastics Forming Enterprise, carried out as per the APR HDPE Critical and Application Guidance testing protocols, Essel tube technology is compatible with recycling.

RecyClass certifies that Essel tube technology will not have a negative impact on the current European HDPE containers recycling provided that tubes are designed under the following conditions:

- a) The body is made of PE and it is white;
- b) The functional barrier is lower or equal to 5% by weight respect to the tube total weight;
- c) The density of the finished tube is lower than 1g/cm³;
- d) Closures, liners, seals and valves, as well as any other components are made of 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);
 - iii. direct printing is limited as much as possible;

- f) It is presumed that the 'Platina 3015' tube does not exceed 5% of the whole European HDPE containers market share. If this threshold is exceeded, further testing will be required and the approval will be subject to review.

RecyClass concludes that 'Platina 3015' tube as per current market conditions and knowledge, is compatible with the existing European industrial recycling processes for HDPE containers. The recyclates generated after the recycling process may be used in high quality applications such as HDPE bottles, only provided the cap will be made by PE. Indeed, as reported above in the conditions, the presence of a PP closure does not allow to reach high recycling quality standards. Thus, a review of this component of the package is strongly recommended.

RecyClass recognition applies only to the Essel 'Platina 3015' tube technology and not to any specific tube as each package would need to be analyzed individually to demonstrate the system of resin, adjuvants, label, and closure conformed to the RecyClass Design for Recycling guidelines and the Recyclability Protocol for HDPE containers.

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 within Europe. RecyClass assesses recyclability and provides specific recommendations on how to improve packaging design to fit current recycling technologies. Activities within RecyClass include the development of Recyclability Evaluation Protocols and testing of innovative materials. Findings are used to update the RecyClass Design for Recycling guidelines and the online free tool.

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