

Void Technologies

RECYCLASS TECHNOLOGY APPROVAL

Brussels, 18 November 2019

Cavitated PE film: new technology approval by RecyClass

RecyClass was requested to carry out an assessment of the technology 'VO+ LLDPE' by VOID Technologies to verify its impact on the quality of recycled PE flexible films. The innovative structure is a cavitated PE film made with a blend of metallocene LLDPE and VO+ masterbatch from VOID Technologies.

According to the results that were obtained from the laboratory test, carried out as per the RecyClass Recyclability Evaluation Protocol for PE films, the 'VO+ LLDPE' is compatible with recycling.

RecyClass certifies that 'VO+ LLDPE' will not have a negative impact on the current European PE film recycling provided it is used only under the following conditions:

- a) The density of the printed film is below 1 g/cm³;
- b) 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. printing covering is lower than 50% of the film surface (higher printing covering will downgrade the RecyClass assessment from B to D);
- c) It is presumed that 'VO+ LLDPE' does not exceed 10% of the whole European LLDPE flexible film market share. In case this threshold is exceeded, further testing will be required, and the current approval will be subject to a review.

RecyClass concludes that 'VO+ LLDPE,' as per current market conditions and knowledge, is compatible with the existing European industrial recycling processes for PE films. RecyClass recognition applies only to the Void Technologies 'VO+ LLDPE' innovation and not necessarily to any specific flexible film as each package must be tested individually to demonstrate if its final design (resin, additives, closure, label, adhesive, ink, printing, etc.) conform to the RecyClass Recyclability Evaluation Protocol for PE

films. Additionally, this technology approval does not apply to any combinations of this technology with other materials different than PE.

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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