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Bostik

RECYCLASS TECHNOLOGY APPROVAL

RecyClass

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The RecyClass PO films Technical Committee was requested to carry out an assessment of the technology 'Bostik SF10M' by Bostik to verify its impact on the quality of recycled PE flexible packaging.

The technology is a laminated film consisting of one commercial LDPE-based sealing film and a stiff MDO-PE film, laminated together via a solvent-free aromatic polyurethane based lamination adhesive. Polyurethane lamination adhesive comprising about 1,6% of the innovation film weight.

According to the results that were obtained from the laboratory test by Proplast, carried out as per the Recyclability Evaluation Protocol for PE films, the 'Bostik SF10M' technology is considered to be **fully** compatible with PE flexibles recycling.

Based on these results, RecyClass certifies that Bostik 'Bostik SF10M' technology will not have a negative impact on the current European PE flexibles recycling provided the laminated films using this technology are designed under the following conditions:

- a) The density of the laminated film is below 1 g/cm³;
- b) The lamination adhesive is solvent-free aromatic polyurethane based and represents 1,6wt% of the laminated film, or less;
- c) 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;
 - the inks comply with the European Legislation (e.g. Packaging and Packaging Waste ii. Directive on the heavy metal concentration levels) and are EUPIA compliant;
 - direct printing is limited as much as possible; iii.

RecyClass concludes that Bostik 'Bostik SF10M' technology as per current market conditions and knowledge, is fully compatible with the existing European industrial recycling processes for PE flexibles. The plastic generated by the recycling process may be used in high quality applications such as PE blown films up to 25%¹.

RecyClass recognition applies only to Bostik 'Bostik SF10M' technology reported in Annex I and is not a recyclability assessment of specific packaging using this laminated film. Any specific packaging using this film 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 PE films, and that it is sorted in the PE flexible 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

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.

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¹ Technology tested according to the RecyClass <u>Recyclability Evaluation Protocol for PE films</u>



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Annex I

PE mono-material laminate		
Substrate 1	MDO-PE 40µ	
Adhesive	1,6%	
Substrate 2	LDPE 50µ	

Figure 1 Bostik SF10M technology by Bostik

