RecyClass

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Taghleef Industries and C.O.I.M.

RECYCLASS TECHNOLOGY APPROVAL

Brussels, 10 February 2026

DISCLAIMER

RecyClass recognition applies only to the combination of Taghleef Industries 'EXTENDO® XZMX 18' and C.O.I.M. 'Novacote® SF 724 A + CA 332' technologies reported in Annex I. The recyclability assessment therefore does not refer to the testing of a specific packaging using this metallised barrier technology. Any specific packaging using this metalissed barrier technology would need to be assessed individually to demonstrate that the system of resin, adjuvants, label, closure, and printing conforms to the RecyClass Design for Recycling Guidelines or Recyclability Evaluation Protocol for PP films, and that it is sorted in the PP flexible stream at the state-of-art sorting plants in Europe.
Publication of results of testing of this technology 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 technology must be communicated to the Technical Committee which will reassess the approval of the technology.

The RecyClass PO films Technical Committee was requested to carry out an assessment of the combination of technologies 'EXTENDO® XZMX 18' by Taghleef Industries and 'Novacote® SF 724 A + CA 332' by C.O.I.M. to verify its impact on the quality of recycled PP flexible packaging.

The tested sample is a triplex structure including vacuum deposited aluminum barrier OPP as inner layer. The tested structure consisted in a BOPP/laminating adhesive/metallised barrier OPP/laminating adhesive/CPP multilayer film with the 'EXTENDO® XZMX 18' as metallised barrier layer, representing 25.1 wt% of the total weight of the film, and the 'Novacote® SF 724 A + CA 332' as a laminating adhesive, representing 5.2 wt% of the total weight of the film. The film has been tested unprinted.

According to the results that were obtained from the laboratory test performed by AIMPLAS, carried out as per the Recyclability Evaluation Protocol for PP films (version 4.0), the combination of 'EXTENDO® XZMX 18' and 'Novacote® SF 724 A + CA 332' technologies is limited compatible with coloured PP flexibles recycling.

Based on these results, RecyClass acknowledges that the combination of Taghleef Industries 'EXTENDO® XZMX 18' and 'Novacote® SF 724 A + CA 332' by C.O.I.M. technologies will have a limited impact on the current European coloured PP flexibles recycling provided that PP flexible films using this technology are designed only under the following conditions[1]:

[1] **PP films designed under conditions other than those indicated need to be tested to assess their compliance with Recyclass Recyclability Evaluation Protocol for PP films.**

a) The density of the PP film is below 0.97 g/cm[3]:
b) The metallised barrier layer 'EXTENDO® XZMX 18' is a vacuum deposited aluminum barrier OPP and represents 25.1 wt% of the total weight of the packaging, or less;
c) The 'EXTENDO® XZMX 18' contains 4.5 wt% of a blend semi-aromatic polyamide, or less;
d) The laminating adhesive 'Novacote® SF 724 A + CA 332' is a solvent-free aromatic PU-based laminating adhesive and represents 5.2 wt% of the total weight of the film, or less;
e) Any components or attachments to the packaging should be preferably made of clear PP;
f) Any additional component or features (inks, adhesives, …) of the packaging must be compliant with the corresponding RecyClass Design for Recycling Guidelines[2].

RecyClass concludes that the combination of Taghleef Industries 'EXTENDO® XZMX 18' and 'Novacote® SF 724 A + CA 332' by C.O.I.M. technologies as per current market conditions and knowledge, is limited compatible with the existing European industrial recycling processes for coloured PP flexibles. The plastic generated by the recycling process may be used in high quality applications such as PP cast films up to 25 % concentration[3].

In regard to RecyClass Recyclability Certification, the present limited compatibility with PP flexibles recycling delivered to 'EXTENDO® XZMX 18' and 'Novacote® SF 724 A + CA 332' technologies, means that a coloured PP flexible packaging containing these technologies, as mentioned in the aforementioned conditions, will be penalised with one recyclability class downgrade. Nevertheless, the amount of recyclable PP will impact the final recyclability class obtained during Recyclability Certification and should be kept above 95 % or 80 % in the final packaging to maximise chances to get a Recyclability Certificate with a Class B or C, respectively[4]. Also, it is noteworthy that the presence of additional packaging features, like inks or adhesives, could additionally impact the certification process.

About RecyClass
RecyClass is a non-profit, cross-industry initiative advancing recyclability, bringing transparency to the origin of plastic waste, and establishing a harmonised approach toward recycled plastic calculation & traceability in Europe. RecyClass develops Recyclability Evaluation Protocols and scientific testing methods for innovative plastic materials which serve as the base for the Design for Recycling Guidelines and the RecyClass Online Tool. RecyClass established Recyclability Certifications for plastic packaging, Sorting Process, Recycling Process, and Recycled Plastics Traceability Certifications for plastic products.
RecyClass – Plastic Future is Circular

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[2] Design for Recycling Guidelines - RecyClass

[3] Technology tested according to the RecyClass Recyclability Evaluation Protocol for PP films

[4] RecyClass Recyclability Certification

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Annex I

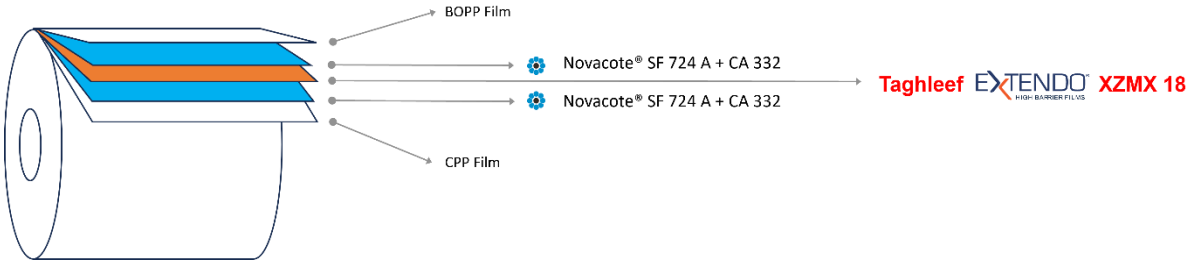

Figure 1. Combination of Taghleef Industries 'EXTENDO® XZMX 18' and C.O.I.M. 'Novacote® SF 724 A + CA 332' technologies.