RecyClass

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UPM Raflatac

RECYCLASS TECHNOLOGY APPROVAL

Brussels, 09 November 2022

DISCLAIMER

RecyClass recognition applies only to UPM Raflatac 'PP White / styrene block co-polymer rubber hotmelt' technology reported in Annex I. The recyclability assessment therefore does not refer to the testing of a specific packaging using this pressure sensitive label. Any specific packaging using this pressure sensitive label would need to be tested individually to demonstrate that the system of resin, adjuvants, label, closure, and printing conforms to the RecyClass Recyclability Evaluation Protocol for PP containers, and that it is sorted in the PP rigid 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 PP Technical Committee was requested to carry out an assessment of the technology *'PP WHITE / STYRENE BLOCK CO-POLYMER RUBBER HOTMELT'* by UPM Raflatac to verify its impact on the quality of recycled PP containers.

The technology is a white PP pressure sensitive label applied unprinted on a PP bottle, without cap. The pressure sensitive label is composed by a PP facestock and a multipurpose rubber based hotmelt adhesive. The adhesive represents less than 0.75% of the total weight of the tested bottle, whilst the PP facestock counts for less than 1.95 wt%.

According to the results that were obtained from the laboratory tests done by Plastics Forming Enterprises (PFE), carried out as per the Recyclability Evaluation Protocol for PP containers, *'PP WHITE / STYRENE BLOCK CO-POLYMER RUBBER HOTMELT'* technology is considered to be limited compatible with coloured PP recycling.

Based on these results, RecyClass acknowledges that UPM Raflatac *'PP WHITE / STYRENE BLOCK CO-POLYMER RUBBER HOTMELT'* technology will have a limited impact on the current European coloured PP containers recycling and provided that the full packaging using this pressure sensitive label is designed under the following conditions:

a) The packaging is made of PP;
b) The facestock of the pressure sensitive label applied on the packaging is made of clear or white PP;

c) The amount of multipurpose rubber based hotmelt adhesive represents 0.75% of the total weight of the packaging, or less;

d) The final density of the packaging is lower than 1 g/cm^3;

e) Any additional components, such as closure system are made of PP, preferably clear or white;

f) 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. printing is limited as much as possible, using preferably light colours.

RecyClass concludes that UPM Raflatac *'PP WHITE / STYRENE BLOCK CO-POLYMER RUBBER HOTMELT'* technology as per current market conditions and knowledge, is limited compatible with the existing European industrial recycling processes for coloured PP containers. Indeed, the recycled plastic generated after the recycling process was successfully tested in high-value application such as PP bottles up to 25% concentration[1].

In regard to RecyClass Recyclability Certification, the present limited compatibility with coloured PP containers recycling approval delivered to UPM Raflatac *'PP WHITE / STYRENE BLOCK CO-POLYMER RUBBER HOTMELT'* technology, means that a packaging containing the UPM Raflatac *'PP WHITE / STYRENE BLOCK CO-POLYMER RUBBER HOTMELT'* as mentioned in the aforementioned conditions will be penalised with one Recyclability Class deduction. Moreover, the amount of recyclable PP will impact the final Recyclability Class obtained during Recyclability Certification[2]. Also, it should be noteworthy that the presence of additional packaging features could impact the certification process.

It should be noteworthy that application of extensive printing on the non-separable pressure sensitive label reduces the quality of recycled plastic generated by the container, by limiting its compatibility with PP recycling. This approval is granted for a period of 2 years, during which the applicant will endeavour to improve the pressure sensitive label construction to allow its removal during the recycling process, based on RecyClass PP Technical Committee recommendation.

[1] Recyclability Evaluation Protocol for PP containers

[2] RecyClass Recyclability Certification

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About RecyClass

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

RecyClass – Plastic Future is Circular

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Annex I

Figure 1. PP WHITE / STYRENE BLOCK CO-POLYMER RUBBER HOTMELT by UPM Raflatac.

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