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Multi-Color Corporation
RECYCLASS TECHNOLOGY APPROVAL

Brussels, 13 January 2025

DISCLAIMER

RecyClass recognition applies only to MCC Label 'SealPPeel' technology reported in Annex I. The recyclability assessment therefore does not refer to the testing of a specific packaging using this technology. Any specific packaging using this technology 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 'SealPPeel' by MCC Label to verify its impact on the quality of recycled PP containers.

The technology is a 3-layer PP heatseal lid applied on a PP tub (as reported in Annex I). The thickness of the tested lid is $110 \, \mu m$ representing less than $7.2 \, wt\%$ of the total weight of the packaging. The lid has been printed, including both inks and lacquer, totally counting for less than $0.2 \, wt\%$ of the total weight of the packaging.

According to the results that were obtained from the laboratory tests done by the Institut für Kunststofftechnologie und -recycling (IKTR), carried out as per the Recyclability Evaluation Protocol for PP containers (version 5.0), 'SealPPeel' technology is <u>fully compatible with PP white and coloured recycling.</u> Additionally, the sortability of the packaging has been successfully tested by Circpack following the RecyClass Sorting Protocol¹. The samples were sorted as PP rigids with an efficiency of 81 %.

Based on these results, RecyClass certifies that MCC Label 'SealPPeel' technology will have no impact on the current European PP white and coloured containers recycling and provided that the full packaging is designed under the following conditions:

- a) The container is preferably made of white PP;
- b) Any additional packaging component is made of PP;
- c) The density of the final packaging is lower than 1 g/cm³;

¹ Sorting Evaluation Protocol for Plastic Packaging

d) The lid represents 7.2 wt% of the total weight of the packaging, or less;

e) The thickness of the lid is 110 μm, or less;

f) Inks and lacquers on the lid represent 0.2 wt% of the total weight of the packaging, or less;

g) Any additional component or features (e.g., inks, adhesives, etc.) of the packaging must be

compliant with the corresponding RecyClass Design for Recycling Guidelines².

RecyClass concludes that MCC Label 'SealPPeel' technology as per current market conditions and

knowledge, is fully compatible with the existing European industrial recycling processes for PP white

and coloured containers. Indeed, the recycled plastic generated after the recycling process was

successfully tested in injection moulding applications up to a concentration of 100 % innovation³.

In regard to RecyClass Recyclability Certification, the present full compatibility with PP white and

coloured containers recycling delivered to MCC Label, 'SealPPeel' technology, means that a packaging

containing this technology, as mentioned in the aforementioned conditions will not be penalised with

any recyclability class deduction. Nevertheless, the amount of recyclable PP will impact the final

recyclability class obtained during Recyclability Certification and should be kept above 95 % or 90 % in

the final packaging to maximise chances to get a Recyclability Certificate with a Class A or B,

respectively⁴. Also, it is noteworthy that the presence of additional packaging features, like label,

adhesive, or barrier material, could 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 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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² Design for Recycling Guidelines - RecyClass

³ Recyclability Evaluation Protocol for PP containers

⁴ RecyClass Recyclability Certification



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Annex I



Figure 1. 'SealPPeel' technology by MCC Label.

