

RecyClass through its PP Technical Committee investigated the impact of cardboard self-separable sleeve on the sorting and recycling of plastic containers. This test campaign focused on the technology 'K3[®] r100 - self separating packaging' by Greiner Packaging.

The technology consists in a plastic cup decorated with a cardboard sleeve. The tested cup is made from clear PP and the outer sleeve is made from cardboard fully printed. Plastic/cardboard ratio represents up to 70:30 depending on cup size and materials. The cardboard sleeve is designed to be self-detachable during the waste collection process due to the mechanical stress, based on the presence of perforations and absence of glue between the plastic cup and the cardboard sleeve.

Sorting trials were performed by both Suez.Circpack and the National Test Centre Circular Plastics (NTCP), following the RecyClass Sorting Evaluation Protocol for plastic packaging¹. In both cases, a sleeve removal efficiency in a range between 87 and 90% was recorded before optical sorting. It was proven that most of the cardboard sleeves are ending up in the cardboard stream and that none of them (even if still attached to the cup) are sorted in a plastic stream.

According to the results that were obtained from the sorting trials, the 'K3[®] r100 - self separating packaging' technology is evaluated as not affecting the sortability of the plastic container and is therefore considered to be **fully compatible with sorting of rigid plastic packaging**.

Based on these results, RecyClass certifies that Greiner Packaging 'K3[®] r100 - self separating packaging' will have no negative impact on the current European sorting. Assessment of equivalent plastic and cardboard sleeves combination that could be self-separated under mechanical stress will require a sorting test following the RecyClass Sorting Evaluation Protocol for plastic packaging.

About

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.

Contact: Alice.Wallon@plasticsrecyclers.eu, www.recyclclass.eu

¹ [RecyClass Sorting Evaluation Protocol for plastic packaging](#)

Annex I



Figure 1: K3[®] r100 - self separating packaging technology by Greiner Packaging