

Penn Color

RECYCLASS/EPBP TECHNOLOGY APPROVAL

Brussels, 11 October 2023

DISCLAIMER

RecyClass and EPBP recognition applies only to Penn Color '66UV11964' technology reported in Annex I. The recyclability assessment therefore does not refer to the testing of a specific packaging using this UV additive. Any specific packaging using this UV additive would need to be tested individually to demonstrate that the system of resin, adjuvants, label, closure, and printing conforms to the Recyclability Evaluation Protocol and Quick Tests for PET bottles, and that it is sorted in the PET bottle 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 PET Technical Committee (TC) and EPBP TC were requested to carry out an assessment of the technology '66UV11964' by Penn Color to verify its impact on the quality of recycled PET bottles.

The technology is a UV stabiliser blended in a clear transparent PET bottle. The amount of UV stabiliser represents about 0.6 wt% of the total weight of the packaging. The PET bottle tested was not decorated nor printed. The bottle presented a light blue tint.

According to the results that were obtained from the laboratory test performed by Plastic Forming Enterprises (PFE), carried out as per the Recyclability Evaluation Protocol for PET bottles^[1], the UV additive technology '66UV11964' is considered to have limited compatibility with the recycling of clear transparent PET bottles.

Based on these results, RecyClass and EPBP acknowledge that Penn Color '66UV11964' will have a limited impact on the current European clear transparent PET bottles recycling and provided that the packaging is designed under the following conditions:

- a) The bottle is made of PET;
- b) The UV additive '66UV11964' represents 0.6 % of the total weight of the packaging, or less;
- c) The UV additive '66UV11964' is used as blended in the PET matrix;
- d) Any additional component or features (inks, adhesives, ...) of the packaging must be compliant with the corresponding RecyClass and EPBP Design for Recycling Guidelines.

[1] [Recyclability Evaluation Protocol for PET bottles](#)

RecyClass and EPBP conclude that Penn Color '66UV11964' as per current market conditions and knowledge, has limited compatibility with the existing European industrial recycling processes for clear transparent PET bottles.

EPBP will continue to monitor any effect of the resins listed above on European recycling streams. All ingredients used in these formulations must be compliant with regulation 10/2011 and its subsequent amendments and any rPET used must comply with EFSA or DG Santé requirements.

In regard to RecyClass Recyclability Certification, "limited compatibility with the recycling of clear transparent PET bottles" means that a clear transparent PET bottle containing the Penn Color '66UV11964' under the aforementioned conditions, will be downgraded by one level on the Recyclability Class scale, due to the light blue tint of the bottle produced using this technology. Also, it should be noteworthy that the Recyclability Class obtained during Recyclability Certification², can be impacted by the presence of additional packaging features, as well as the amount of PET and POs"

RecyClass PET TC and EPBP TC clarified that the light blue tint of the initial bottle produced using this technology was the main limiting factor to deliver a full compatibility approval for the transparent clear PET bottle stream.

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](#)

Follow the latest news on RecyClass channels: [LinkedIn](#) | [Twitter](#) | [YouTube](#)

Contact : Jean-Emile.Potaufeux@plasticsrecyclers.eu, www.recyclass.eu

About EPBP

EPBP is a Platform that consists of technical experts in the field of PET production, design and recycling, whose only objective is the evaluation of new technologies and providing an independent and confidential assessment of their impact on the PET recycling processes across Europe. EPBP has established several test procedures in order to assess the impact on recycling of new packaging technologies. Products that pass the tests should not cause any problems during recycling.

www.epbp.org:

Contact : argiris.dabanlis@petcore-europe.org

Annex I



Figure 1. '66UV11964' developed by Penn Color