RecyClass[™]

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Procter & Gamble RECYCLASS PRODUCT APPROVAL

Brussels, 19th August 2020

The RecyClass HDPE Technical Committee was requested to carry out an assessment of the product 'Mr Propre Ultra Power' fully sleeved bottle with trigger by Procter & Gamble to verify its impact on the quality of recycled HDPE containers.

The innovative packaging is a HDPE bottle with a decorated full body PET-g sleeve for a multi-purposes cleaner and it is provided with a trigger made of 90% PP and 10%PE.

According to the results that were obtained from the laboratory test by the Institut für Kunststofftechnologie und -recycling (IKTR), carried out as per the Recyclability Evaluation Protocol for HDPE containers, 'Mr Propre Ultra Power' with this specific trigger is considered to be compatible with HDPE recycling. Also the sortability of the packaging has been successfully tested by Suez.Circpack[®] following the RecyClass sorting protocol.

Based on these results, RecyClass certifies that Procter & Gamble 'Mr Propre Ultra Power' full body sleeve bottle with trigger will not have a negative impact on the current European HDPE containers recycling provided the full packaging using this bottle as body is designed under the following conditions:

- a) The body is made of clear/natural HDPE;
- b) No functional barriers are included in the body (i.e. EVOH, PA, PVDC);
- c) The density of the finished bottle is lower than 1g/cm³;
- d) The sleeve is made by PET-g, applied without any adhesive and its thickness and colour don't hinder the HDPE bottle to be detected by NIR devices;
- e) The PP concentration doesn't exceed 38% of the total weight of the full packaging;
- f) The PE/PP trigger, tested successfully without any additional component, is preferentially colorless or light coloured;
- g) The inks are not bleeding and comply with the European Legislation (e.g. Packaging and Packaging Waste Directive on the heavy metal concentration levels);

RecyClass concludes that Procter & Gamble 'Mr Propre Ultra Power' bottle with trigger product as per current market conditions and knowledge, is compatible with the existing European industrial recycling processes for HDPE containers (resulting in a C RecyClass score). The plastic generated by the recycling process may be used in high quality applications such as HDPE bottles, providing that the trigger will not contain higher concentration of PP and the full package market penetration is limited to 25% maximum of the HDPE market.

Outside of above 2 conditions, the package may not allow to reach high recycling quality standards and will be assessed with a lower rating than C class by the RecyClass recyclability Methodology. RecyClass recommends to reduce the concentration of PP in the trigger to further improve recycling and make "Mr. Propre Ultra Power" bottles fully compatible.

RecyClass recognition applies only to Procter & Gamble 'Mr Propre Ultra Power' bottle with trigger reported in Annex I and not to any specific bottle as each packaging would need to be tested individually to demonstrate the system of resin, adjuvants, label, and closure conformed to the RecyClass Recyclability Evaluation Protocol for HDPE containers.

Any change on the formulation of the product must be communicated to the Technical Committee which will reassess the approval of the product.

About



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RecyClass is a comprehensive cross-industry initiative that works to advance plastic packaging recyclability within Europe. RecyClass assesses recyclability and provides specific recommendations on how to improve packaging design to fit current recycling technologies. Activities within RecyClass include the development of Recyclability Evaluation Protocols and testing of innovative materials. Findings are used to update the RecyClass Design for Recycling guidelines and the online free tool.

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<u>Annex I</u>



Figure 1 Mr Propre Ultra power full sleeved bottle by Procter & Gamble