RecyClass

c/o Plastics Recyclers Europe
Avenue de Broqueville 12
1150 Brussels, Brussels

Phone: +32 2 315 24 60
info@recyclass.eu
www.recyclass.eu

Procter & Gamble

RECYCLASS PRODUCT APPROVAL

Brussels, 23 June 2021

DISCLAIMER

RecyClass recognition applies only to Procter & Gamble 'Single Unit Dose laundry pouch pack' product reported in Annex I and Annex II. It, therefore, does not concern to a recyclability assessment of specific packaging using this pouch.
Any specific packaging using this pouch 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 PE films, and that it is sorted in the PE flexible 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 PO films Technical Committee was requested to carry out an assessment of the product 'Single Unit Dose laundry pouch pack' by Procter & Gamble to verify its impact on the quality of recycled PE flexible packaging.

The product is a laminated multilayer film, consisting of two PE layers. Laminating adhesive between the PE layers is PU-based solvent free and represents less that 2wt% of the total film structure. The product is fully decorated by reverse printing, and it is provided with a PP closing clip system.

According to the results that were obtained from the laboratory test by Proplast, carried out as per the Recyclability Evaluation Protocol for PE films, the 'Single Unit Dose laundry pouch pack' product is considered to be compatible with coloured PE flexibles 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 'Single Unit Dose laundry pouch pack' product will not have a negative impact on the current European coloured PE flexibles recycling provided the product is designed under the following conditions:

a) The density of the printed film is below 1 g/cm^3;
b) The laminating adhesive is PU-based solvent free and represents less than 2wt% of the total structure;
c) The PP closing clip system represents 4wt%, or less, of the total structure;

d) The weight of applied inks counts for 3wt%, or less, of the total structure;

e) 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. direct printing is limited as much as possible (see Annex I);

RecyClass concludes that Procter & Gamble 'Single Unit Dose laundry pouch pack' product as per current market conditions and knowledge, is compatible with the existing European industrial recycling processes for coloured PE flexibles.

The plastic generated by the recycling process may be used in high quality applications such as PE blown films up to 25%[1], and providing that the package does not exceed 10% of the whole European LDPE flexible film market share[2].

Following the Recyclability Methodology[3] developed by RecyClass, 'Single Unit Dose laundry pouch pack' product corresponds to a class ranking C. The packaging is indeed penalized by both the introduction of polypropylene into the PE recycling stream and the direct printing covering (> 50% surface). However, this letter is not a certification and does not allow the use of the class ranking logo. Therefore, Procter & Gamble is invited to contact one of the recognized Certification Bodies to get 'Single Unit Dose laundry pouch pack' product certified.

Similar executions of 'Single Unit Dose laundry pouch pack' product with the only modification of artworks and/or modification of the pouch sizes would not have to be tested again as long as the ink amount and the components proportion remain the same.

[1] Product tested according to the RecyClass Recyclability Evaluation Protocol for PE films

[2] The market penetration is not specific to the brands, but is related to the overall PE laminated pouches market: $Market\ penetration = \frac{\sum_{vol} PE\ laminated\ pouches}{\sum_{vol} PE\ flexible\ packaging\ EU\ market}$

[3] Recyclability Methoodology of RecyClass

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AMENDMENT I:

Next to the RecyClass product approval on 'Single Unit Dose laundry pouch pack', P&G informed RecyClass that – based on RecyClass initial feedback on 'Single Unit Dose laundry pouch pack' – the closure system of the pouch has been improved by removing the PP content. In the pouch version tested by RecyClass, the closing system was indeed composed by a PE zipper and a PP slider representing around 4% of the total packaging.

In EU, 'Single Unit Dose laundry pouch pack' product will be launched instead with an improved version of the closure system: 100% LDPE press-to-close zipper (see Annex II). This improvement falls into the requirements of the approval letter (*cf*: bullet point c). Moreover it has been tested that this new zipper does not impact the sorting behaviour of the pouch. Therefore, the RecyClass PO films Technical Committee extends the approval to this revised product.

Following the Recyclability Methodology developed by RecyClass, 'Single Unit Dose laundry pouch pack' revised product corresponds to a class ranking B, reflecting the Design-for-Recyclability improvements of the pouch structure (PE content > 95%wt).

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Annex I : original approved version

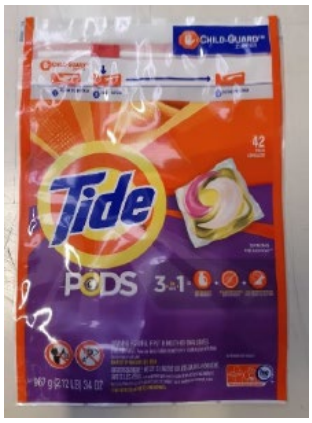

Figure 1 Single Unit Dose laundry pouch pack *product by P&G*

Annex II: improved version of the closing system

Modification of the closure system: move from child impeding mixed plastic slider (11%PP) – zipper (89%PE) to a child impeding mono material press to close zipper (100%PE), enhancing recyclability with eliminating PP contamination.

Figure 2: Original closure system made of mixed plastic (0.8g PP and 3.6g PE)

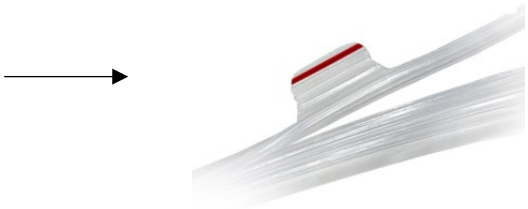

Figure 3: New closure system made of mono material plastic (2.5g LDPE)

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