



Brussels, June 22<sup>th</sup>, 2015

The Technical Committee of the European PET Bottle Platform (EPBP) was requested to assess the effect of Sleever International - LDPET<sup>®</sup> low density PET film for shrink sleeve label application on the quality of recycled PET.

Sleever International - LDPET<sup>®</sup> shrink sleeves are designed to shrink to the bottle without the need for glues. During the recycling process they separate from the bottle after grinding and are removed from the recycled PET flakes by sink/float separation and elutriation.

Data supplied from tests carried out according to the EPBP testing protocol demonstrated that the removal of the label during the washing process had no negative impact on the colour and processing performance of the resulting recycled PET, given the specific film Sleever International - LDPET<sup>®</sup> and ink combination tested.

Based on the EPBP assessment's outcome and current market's knowledge in 2016, the European PET Bottle Platform (EPBP) concludes that Sleever International - LDPET<sup>®</sup> will not have a negative impact on current European PET recycling provided it is used only under the following conditions:

- (a) The presence of labels and sleeves on PET bottles should not lead to errors in identification and separation by NIR and optical detectors currently used in plastic packaging waste sorting plants. For that reason, labels and sleeves should not cover more than 70% of the bottle surface for PET bottles of 500 ml and above; and not more than 50% for PET bottles smaller than 500 ml.
- (b) The density of the printed sleeve (label + ink + coating when applied) is below 1 g/cm<sup>3</sup>, taking shrinking during label application, further shrinking after grinding due to hot caustic washing and batch to batch tolerances into consideration.
- (c) Since the EPBP evaluation refers to a specific film and ink combination, while 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 the inks:
  - a. Are non bleeding;
  - b. Have high chemical resistance;
  - c. Have very low migration;
  - d. Comply with the European Legislation (e.g. Packaging and Packaging Waste Directive on the heavy metal concentration levels).
- (d) The concentration of shrink labelled bottles is limited to a max to 20% of the whole EU PET bottle market. This market penetration rate takes local accumulation effects into consideration.