Brussels, 3 June 2015

The Technical Committee of the European PET Bottle Platform (EBPB) was requested to assess the effect of Klöckner Pentaplast - Pentalabel Polyolefin film LF-TC8CF03 low density polyolefin film for shrink sleeve label application on the quality of recycled PET. The application refers to low density polyolefin film for shrink sleeve label applications without printing.

Pentalabel Polyolefin film LF-TC8CF03 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 rPET flakes by sink/float separation and elutriation.

Data supplied from tests carried out according to the EPBP testing protocol demonstrated removal of the label during the washing process and no negative impact on the colour and processing performance of the resulting rPET as far as the unprinted film is considered.

Based on the EPBP assessment's outcome and current market's knowledge in 2015, the European PET Bottle Platform (EPBP) concludes that Pentalabel Polyolefin film LF-TC8CF03 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^3, 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 the unprinted film and 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.