



Bruxelles, August 31, 2017

The Technical Committee of the European PET Bottle Platform (EPBP) was requested to evaluate the effect of direct printed PET bottles produced by the Direct Print Powered by KHS™ machine in combination with Direct Print ink on the quality of recycled PET. The Direct Print Powered by KHS™ machine is designed to be run using specifically developed Direct Print inks that are low migration, UV-curable and compliant with all European guidelines.

Data supplied from recycling tests carried out conforming to the EPBP testing protocol and migration tests according to Fraunhofer IVV method 1.334 demonstrated minimal impact on the colour and properties of the resulting rPET.

Printed ink is designed to be removed during friction washing and to separate from PET flakes during the recycling process. However, it has not been possible to assess the long-term effect of the released ink particles in the recyclers' wash lines and consequently on rPET quality.

Based on the assessment's outcome but taking into account the variable performance of European recyclers, the novelty of this packaging solution and its potential market penetration, **EPBP has awarded interim approval to Direct Print Powered by KHS™ machine in combination with Direct Print inks supplied via NMP Systems GmbH** in a test market (up to four industrial machines) and for an interim period, expiring 31 August 2019. The interim approval is awarded under the following conditions:

- The four Direct Print Powered by KHS™ machines, with a maximum combined annual capacity of 250 million bottles, to be installed in different European countries
- EPBP to be informed in advance regarding countries and products, in order to allow to understand the risk with the recycling value chain
- Only the specific (low migration, UV-curable and compliant with all European guidelines) inks developed and supplied by NMP Systems GmbH to be used in the Direct Print Powered by KHS™ machine(s)
- Users of the Direct Print Powered by KHS™ machine(s) must strictly follow the operating instructions and conditions laid down by KHS GmbH and NMP Systems GmbH
- KHS GmbH and NMP Systems GmbH will continue to cooperate with EPBP in order to carry out additional tests that will allow long-term effects assessment, to be conclusive to decide if the approval can become permanent
- **The word "interim" is quoted in any reference to the EPBP approval**

This period will be used to run trials that will allow recyclers to be given recommendations on how directly printed PET bottles brought on the market with should be handled.