

## **Guidelines for mixing low migration printing inks for food packaging**

When mixing Flint Group low migration printing inks, either in a mixing station or manually, the following criteria should be considered and appropriate measures taken to ensure compliance with these guidelines:

### **Recipe**

- Only components and additives approved by Flint Group for low migration inks are permitted. Any potential for confusion with other products should be eliminated.

### **Production**

- For each batch produced, a recipe for that production order must exist, in which the materials used (base inks, thinner) with quantity, as well as the tools used have to be listed. Further special instructions for example „use only clean mixing buckets“ have to be listed.
- To ensure contamination free production, appropriate measures for avoiding contamination by other printing inks/additives have to be defined and followed.
- A low migration mixing station standing separately from a standard inks mixing station would be ideal. If this is not possible, a distinct separation between the production area for standard inks and the low migration inks must be clearly recognisable. Further suitable measures have to be taken, to avoid using standard components (base inks, additives) by mistake. If for both systems the same style of production containers is used, the production containers for low migration inks have to be specially and clearly labelled. To avoid cross contamination any tools that come into direct contact with the low migration inks should only be used for that purpose and not for mixing standard inks. When mixing in tins the tin must be labelled before weighing the individual components to avoid mistakes. Recipes for low migration inks have to be specially marked, for which coloured marking is recommended.
- Used devices and tools should be cleaned with suitable agents. Contamination from detergents must be avoided. For cleaning purposes the use of Novasens PREMIUM Reducer is recommended.

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- Mixed low migration inks have to be clearly labelled. In addition to the colour name all mixes should be given a reference relating to colour number as well as batch number. For tracing batches of mixed recipes batch numbers have to be created, and the recipes including the batch numbers of the recipe components have to be recorded. The use of suitable data banks will be very helpful for this purpose.
- Before filling the tins they should be tested regarding impurities or dirt.

## Quality management

- A quality management system must exist.
- The ink has to be specified on the recipe/production order. This specification in mixing stations can only be an indication of the colour space. The process for checking the specification must be defined and fixed.
- Adherence to the specification must be checked and documented.
- A procedure for adjustment of the ink, in case of non-fulfilment or inaccuracy of the specification must exist.

## Receiving inspection

- Before using components for the production of low migration inks supplied by Flint Group, their identity should be checked by careful checking of the labels.
- It should be ensured that the first delivered base inks are used first. (FIFO)

## Personnel and Training

- It should be ensured that only well trained personnel are appointed for the production of low migration inks. Training material is available from Flint Group.
- Completed training courses regarding participants, contents and training duration have to be documented.

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