Recycling inkjet printed paper

The growth of high coverage inkjet printing is causing problems in the paper recycling process. MBA is taking a lead on this important environmental issue.

Why is inkjet printing a problem now?

Inkjet printing was developed in the 1950s and became popular with the growth of personalised direct mail. Separating the ink from the paper has always been a problem, but the recycling process could cope with small quantities of inkjet ink, e.g. over-printing of address details on envelopes.

It's the rise of full colour, high coverage inkjet printing that is causing headaches for the paper recycling industry.

The most popular method of paper recycling is the floatation system, but inkjet particles are too large to be separated from paper using this system. As a result, the ink particles stay in the paper and affect the whiteness and construction of recycled material.

Lower whiteness means more bleaching, and poor construction leads to problems in paper manufacture and printing.

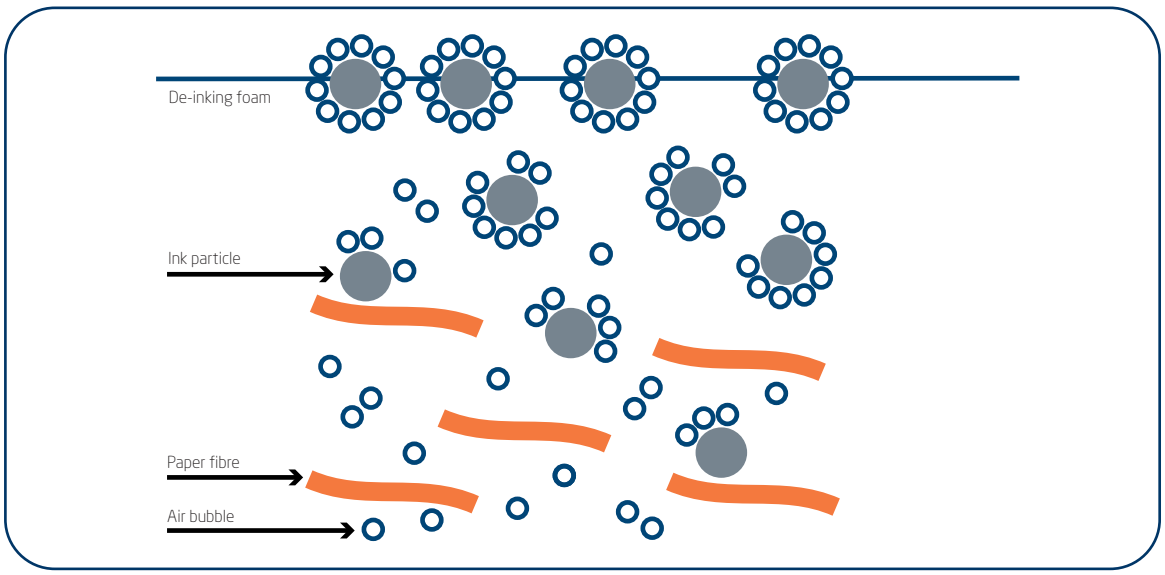
How does the floatation system work?

The printed paper is emersed in water and air bubbles are passed through the mixture. The ink particles are normally separated from the paper fibre and transported to the surface by the bubbles.

The ink particles are skimmed off the surface of the water and the paper fibres eventually sink to the bottom. The paper fibres are recovered and processed to produce recycled paper.

However, inkjet, conventional flexo, UV and liquid toner inks cannot be separated from paper using this method.

Diagram A: De-inking Floatation System



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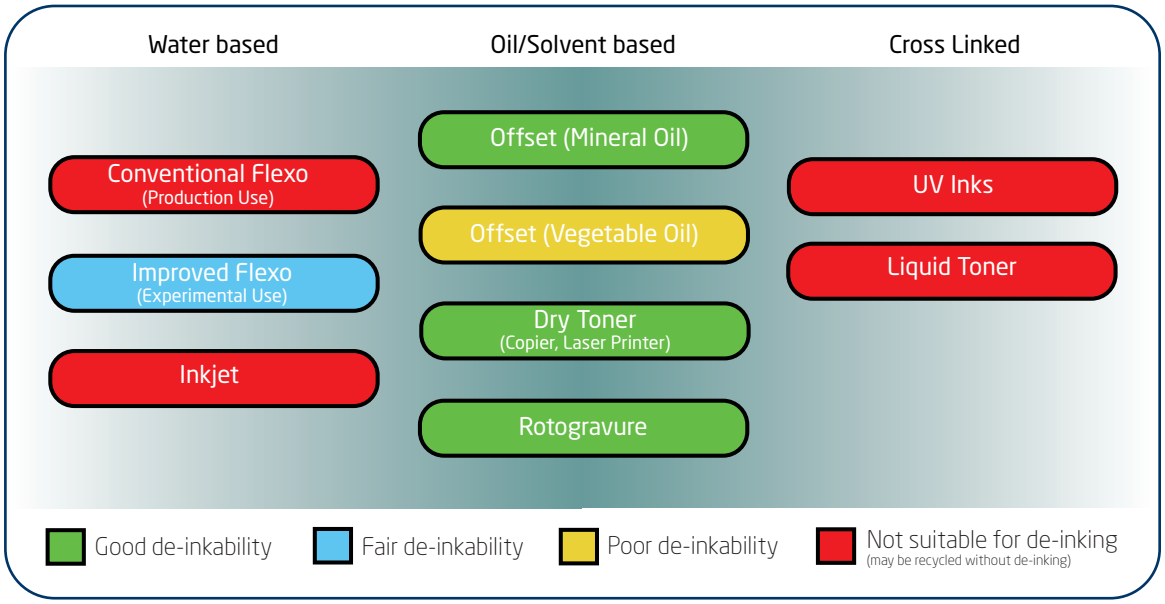
What is MBA doing about inkjet printed paper?

MBA has made a commitment to use oil and solvent based inks for the bulk of their printing, these can be de-inked as shown by the Diagram B. If inkjet inks are required we use them in limited areas, such as address lines on envelopes. This low coverage use of mono inkjet ink does not cause a problem in the recycling process.

Diagram B: Ink Suitability for Floatation De-inking



In addition, MBA is campaigning for the European Parliament to generate greater awareness of the issue, introduce self-regulation for inkjet printing and support alternative technology.

> Marina Yannakoudakis, MEP, and Graham Smith, Marketing Manager, review print samples using dry toner from the Xerox 980 presses.

Marina Yannakoudakis, MEP for London, recently visited MBA as part of a fact finding tour. Following her visit, she raised the issue in the European Parliament and called for EU support to help fund economically viable and more environmentally friendly alternatives.

Speaking to the President of the European Parliament in Strasbourg, Mrs Yannakoudakis said, "We all know the importance of recycling and it's a given fact that we would expect paper to be recycled once used. I recently visited a printing company, MBA, in my constituency of London, where I found out more about inkjet printing.

"The complicated process used to recycle inkjet paper makes it an expensive process, and the use of additional bleach means it is not environmentally friendly. Companies such as MBA, who use other forms of printing which are environmentally friendly need to be encouraged and incentives offered to make the process economically more even handed."

MBA will continue to take an active role on all environmental issues as part of our ISO14001 accreditation and commitment to corporate social responsibility.

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