

# Facts about Paper Recycling

Press Release 3/2008



## ***Dry toners far better deinkable than liquid toner***

### ***Incorrect claims in HP brochure at “drupa”***

HP at drupa distributes a brochure ("Environmental FAQ") stating that "De-inking tests of HP ElectroInk 4.0 results were in the same range as dry toner". There is no deinkability test available that supports these claims.

For INGEDE, different research institutes have tested samples of digital prints since 2001. From the beginning of these tests it became clear that inkjet inks and liquid toner for different reasons create problems in the deinking process, a key step in the recycling of graphic paper in Europe. Dry toners on the other hand showed no problems; in many cases the deinkability parameters are even better than for offset prints.

In an earlier brochure HP admits problems in recycling HP Indigo's ElectroInk 4.0; now, without noticeable changes in the ink, HP claims that the deinkability is comparable to dry toner.

**INGEDE does not know of any test** supporting this claim. No matter how dry toner and liquid toner were compared – there has been a factor of 100 or more in terms of dirt specks in between. This is the relevant deinking parameter for toners.

HP Indigo seems to misinterpret results from a process simulation that INGEDE had initiated last year. HP Indigo prints were chosen for that simulation because they are difficult to deink – it was expected that even after maximum treatment, there would still be remaining dirt specks so this allows tracking the efficiency of the different steps as well as the accuracy of the lab simulation. Liquid toner is currently one of the most intensive sources for dirt specks, **requiring additional effort in the paper mill in terms of energy, chemicals and fibre losses** and thus having a much bigger "carbon footprint" than dry toners. For dry toner prints in this kind of simulation, the resulting dirt speck area can be expected to be zero.

The **simulation is not a test method** for deinkability, the results for this reason cannot be compared with results from INGEDE Method 11 (a method for deinkability testing) at all. This has been discussed with HP, and HP repeatedly has been informed that the results are not comparable.

A recent technical paper by a "Technical Committee Deinking" of associations of the German paper chain organized by INGEDE recommends not to invest in liquid toner or inkjet

technologies for production printing unless the deinkability questions have been solved.

The paper industry is **open to all new developments** in the printing sector as paper will stay the most important medium to transport information and entertainment. For a sustainable development, for climate protection and reduction of the carbon footprint, **all aspects in the life cycle of a product** have to be considered. This requires increased cooperation of all members of the paper chain and increased sensitivity to each others' problems.

Already when designing a print product, a publisher or marketing agent has to take recycling into concern. Only a joint development will persist in the long run. The paper industry invites everybody for new ideas to improve the interaction of paper and ink – of ink going on as well as off the paper. **Recovered paper is a major resource** for the paper industry – INGEDE wants recovered paper to stay recyclable with economically and ecologically reasonable effort.

**INGEDE** is an association of leading European paper manufacturers founded in 1989. INGEDE aims at promoting utilisation of recovered graphic paper (newsprint, magazines and office paper) and improving the conditions for an extended use of recovered paper for the production of graphic and hygiene papers.

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This press release can also be found in the internet: **[www.ingede.com](http://www.ingede.com)**.  
More information about the deinking of digital prints is available there.