



Deinkable Inkjet Samples and a Variation of INGEDE Method 11

8th Meeting of the Digital Round Table in La Hulpe

Impressive taxi flat rates to and from the secluded hotel were one of the travel concomitants of the last Digital Round Table in La Hulpe, Belgium, inks on a coated inkjet paper, showed good deinkability. It is one of the currently few paper-inkjet ink combinations that result in a good



La Hulpe train station , photo: Wouter Hagens

that otherwise turned out to be quite varied: New participants from chemical suppliers, research and paper mills broadened the picture and provided interesting presentations. Kodak Graphic Communications in La Hulpe, Belgium hosted the meeting and provided an interesting demonstration of the latest NexPress printer. Probably the most interesting contribution came from Nico Päuser of Mitsubishi Paper in Bielefeld. He reported about deinking tests performed by Voith's labs with commercial inkjet

deinkability score. Kathariina Nyman of VTT in Helsinki presented her Master's thesis on enzyme-aided deinking of inkjet paper. According to her research, the enzyme laccase, which is derived from fungi and has lignin as a natural substrate, can also decolorize inkjet dyes, especially when supported by a mediator compound. This effect was not only seen in lab solutions but also with coated fine paper samples. No effect of laccase was seen in deinking trials with newspapers. Here lignin might be the preferred substrate.

Mike Murcia of Nalco, USA reported about deinking trials using TOFA (tall oil fatty acid) to improve the performance in deinking waterbased inks. Tea Hanuksela of Kemira in Germany talked about low-alkali deinking conditions. Gregg Lane (HP Inkjet, USA) concluded on observations about the pH influence on the deinkability of inkjet inks.

The fact that pulping some fine papers according to ...

continued on page 2



photos: Nico Päuser, Mitsubishi Paper

print samples. These samples, printed with a Kodak Versamark inkjet printer with pigmented waterbased

CALENDAR OF EVENTS

10 Feb 2010

INGEDE General Assembly
- members only -
HbW, Munich, Germany

10 Feb 2010

INGEDE Communication Platform
- members only -
part of General Assembly
HbW, Munich, Germany

11 Feb 2010

INGEDE Symposium
HbW, Munich, Germany



We wish all our readers a Merry Christmas and a prosperous and Happy New Year!

In this issue:

Printing Future Days in Chemnitz page 2



INGEDE Method 11 might lead to high pH values which do not reflect actual process conditions that have already been discussed within INGEDE. Andreas Faul presented a new possible variation of INGEDE Method 11 that could take these effects into account. He suggested to check the pH after pulping and repeat the test with a new sample if the pH is too high (outside a corridor yet to be decided).

No agreement was achieved on the

DPDA's request of a detailed questionnaire providing relevant process data of deinking plants. Andreas Faul's suggestion of a set of relevant parameters was refused by HP. The paper industry sees no meaning in providing detailed data that might vary from mill to mill depending on the respective conditions, without being able to make sure that the context is taken into account. Also, data in the way that DPDA demands them, are not shared by many

mills due to possible competition concerns.

With a participation of 28 representatives of printer manufacturers, paper mills and research institutes, the meeting has reached a limit. For the next meeting it has been suggested to split between a general part with scientific presentations and a second part with discussions of current issues between paper and printer industries.

Axel Fischer

Printing future days 2009—Chemnitz

Students from all over the world learn about printing – and deinking. For the third time, in November students of print and media technologies came together in Chemnitz to exchange their own projects and hear presentations of a few experts in the field. The annual conference is hosted by the Institute for Print and Media Technology



of Chemnitz University of Technology with Professor Reinhard Baumann. He gave a presentation about the "Internet of things" and the future role of the printing industry at this. He showed which components en-

able the communication between items and gave an overview over the actual contributions of his group. Among this, printed antennas for the transfer of information and printed batteries providing the necessary energy.

Detlef Schulze-Hagenest (Kodak) showed that particularly the field of digital printing exhibits great potential. Both, inkjet printing as well as electrophotography were addressed. Thomas Walther (Steinemann Technology AG) showed ways to overcome the actual crisis in the printing market. This could be done by exploiting new markets, but especially by the simplification of existing complex and costly technologies associated with reducing of costs. As example he showed interesting and already used

applications of the pretreatment of substrates.

On the third day materials of the printing industry were focused – the inks and substrates. Erich Frank (Flint Group) gave an insight into the development of the market of several printing technologies of the last years and showed the complexity of creating new inks. Axel Fischer (INGEDE) spoke about the challenge of the deinking of paper in the recycling process. The students were surprised to learn that digital printed mass products might lead to problems in the deinking process and eagerly dis-

cussed possible solutions.

Link: www.printingfuturedays.com



Axel Fischer—INGEDE

cussed possible solutions.

Link: www.printingfuturedays.com

Axel Fischer/Frank Siegel (pmTUC)



Detlef Schulze-Hagenest—Kodak