

## INGEDE welcomes necessary research activities towards deinkability of inkjet printed paper

Good recyclability is a crucial feature for the sustainability of the graphic paper loop. Using actual offset and roto-gravure paper printing processes in combination with modern recycling technology based on flotation deinking, the paper fibres can be used more than five times for production.

**Separating** the paper coming from household collections into fractions of different printing technologies like offset and rotogravure from flexo, dye based inkjet, and pigment based inkjet inks to treat them separately seems **no feasible option**. Therefore one optimised recycling process for **joint deinking** of the printed paper mix has been developed in many years of scientific and mill based work.

**Flotation deinking is the key process step** to produce bright papers in modern paper recycling plants. **INGEDE Method 11** simulates the flotation deinking behaviour of typical industrial deinking plants. **Bleaching** the deinked pulp with peroxide or dithionite **is not a standard process** for standard newsprint paper, but is used for pulps with higher brightness for improved paper grades.

**Contrary to DPDA's last press releases**, the deinkability of production inkjet printed paper products still needs a lot of improvement in order to ensure sustainable recycling not only of these papers but of the whole paper mixture. DPDA claims encouraging results from a first study with dithionite bleaching though **water soluble dyes cannot be removed** in the flotation deinking process at all.

### Many open questions remain

- A **bleaching** step necessary for a small amount of inkjet printed papers within the mixture would be an **additional step** to the existing newsprint deinking process, resulting in **additional costs and environmental impact by additional chemicals**.
- The result of additional process steps like bleaching is that also **higher targets** than the ERPC Deinking Score-

card have to be fulfilled. Else the quality requirements of paper grades better than standard news cannot be achieved in the mills.

- The preliminary research gives **no evidence** whether the dyes tested are just decolourised or irreversibly chemically decomposed. It has to be proven that the bleaching effect is **irreversible** and the **colour will not reappear** with time; not under the oxidative pulping condition or later paper storage.
- Also the **relevance** of the alleged results is open – which dyes are currently used in inkjet, and which share of them is bleachable? How do pigment based inkjet inks behave in the reductive bleaching step?

The DPDA's experiments have been done with bright wood-free papers. But for newspapers which are a major expected growth sector for inkjet, usually wood-containing grades are used. The question remains what the results would be with the wide range of the paper grades on the market? Also downcycling higher grades to newsprint standards would not comply with the efforts of the European Union to promote the utilisation of recovered paper in higher grades.

INGEDE disagrees with DPDA's statement that INGEDE Method 11 does not match for water soluble inks\*. The fact is that **water soluble inks do not match with flotation deinking**. INGEDE Method 11 does nothing else than simulating the key process conditions of typical deinking plants. Negative ERPC Deinking Scorecard deinking results for paper printed with water soluble inks indicate that these inks will not float in industrial deinking plants and therefore will have a **negative impact on the recycling process**.

INGEDE invites DPDA for a **genuine scientific cooperation** to develop a sustainable inkjet printing business that covers **all environmental aspects** from printing to recycling.

Axel Fischer

\*More information at: [www.ingede.org](http://www.ingede.org)

## CALENDAR OF EVENTS

31 Aug 2010

**INGEDE Project 129 09**  
"Adhesive Applications"  
PMV Darmstadt, Germany

7–9 Sept 2010

**INGEDE Working Group**  
"DIP Quality Management"  
Maxau, Germany

16–17 Sept 2010

**European Adhesives & Sealants Conference 2010**  
FEICA, Helsinki, Finland

30 Sept 2010

**INGEDE Project 132 10**  
"Deinking potential of recovered paper depending on water circuit quality"  
CTP/PMV/PTS  
Darmstadt, Germany

6–7 Oct 2010

**INGEDE Working Group**  
"Recovered Paper Quality"  
Hamburg, Germany

18–21 Oct 2010

**Research Forum on Recycling**  
Norfolk, Virginia, USA

27 Oct 2010

**INGEDE Seminar**  
"Rezyklierbarkeit von Druckprodukten"  
Berlin, Germany

16–18 Nov 2010

**European Paper Week**  
Brussels, Belgium

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## Focus: Events in fall 2010



### RWM at the NEC in Birmingham 14 to 16 September

Join your peers at the RWM to find out **how to make waste work better for you**. Whether you work within the recycling and waste management, retail or construction industries or you are a senior decision maker within a local authority, RWM 2010 has been designed to incorporate new features and seminars focussed on your needs.

[www.//rwmexhibition.com](http://www.rwmexhibition.com)

source: RWM



### FEICA European Adhesives and Sealants Conference 2010

16 to 17 Sept 2010  
in Helsinki,

Finland, venue is the Scandic Marina Congress Center

[www.feica-conferences.com](http://www.feica-conferences.com)

source: Feica



### IFRA Expo 2010 4 to 6 Oct in Hamburg

The leading event of the newspaper and media industry docks in Hamburg with a cargo of innovations on board.

The 40th edition will present an abundance of innovations. The duration of this year's event will be shortened by one day, the opening hours have been extended: Monday, 4 October to Wednesday, 6 October 2010, from 9.30 to 18.00 h. The conferences program is planned until 7 October.

IFRA Expo will be held in three halls: hall A1 for digital technologies, systems and software, halls A3 and A4 for prepress, printing and finishing.

[www.ifraexpo.com](http://www.ifraexpo.com)

source: Ifra



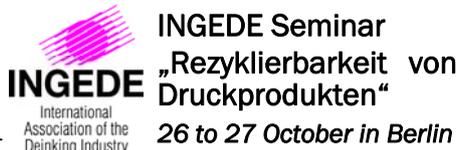
### 9th Annual Research Forum on Recycling

17–20 Oct in Norfolk, Virginia, USA

Jointly organized by TAPPI and PAPTAC, this technical forum presents a rare opportunity to learn about the latest research, ideas, methods and techniques in the production of recycled fiber from the world's experts. This year's Research Forum on Recycling program will address the challenges affecting recycling efficiency, such as changes in digital print media, contaminant removal and quantification. Speakers include respected engineers, scientists, and practitioners from around the world. Andreas Faul will give a presentation "The Challenge to Deink Inkjet Prints Together with Recovered Paper from Households"

[www.tappi.org](http://www.tappi.org)

source: Tappi



### INGEDE Seminar

"Rezyklierbarkeit von Druckprodukten"

26 to 27 October in Berlin

A seminar for the members of the paper chain (especially editors and printers). This year it will take place in Berlin at the hotel „Park Inn Berlin City West“. The seminar will be held in German language and speakers with different backgrounds will give presentations about the topics **Recovered Paper, Recyclability and Digital Printing**.

We are looking forward to welcome stakeholders of the paper value chain in Germany and German speaking neighbour countries and have a fruitful discussion.

Marion Klabunde

**2009 ERPC Monitoring Report** just published. It shows the latest world record recycling rate of 72.2% for Europe. You can already download the electronic version here:

<http://www.paperrecovery.org/files/>



### 2010 European Paper Recycling Conference

3–4 Nov 2010 in Frankfurt,

Germany at the Sheraton Conference Hotel

Conference Highlights are an informative program featuring sessions on trading, collection, processing and freight, extensive networking opportunities and an exhibit area featuring the latest product and service offerings.

[www.paperrecyclingeurope.com](http://www.paperrecyclingeurope.com)

source: Pira International



### INTERGRAF Annual meeting 8 to 9 Nov in Vizenca, Italy

Andreas Faul will give a presentation „Recyclability of Adhesive Applications“ in the frame of a programme featuring topics on adhesives and bookbinding. The programme contains also the visit of a leading bookbinding company.

[www.intergraf.eu](http://www.intergraf.eu)

source: Intergraf



### European Paper Week 16 to 18 Nov in Brussels, Belgium

This year, the European Paper Week will take place in a new venue: **The Crowne Plaza - Le Palace** situated on the famous Place Rogier in Brussels. It has developed a new meeting concept called 'Balanced Senses', a stimulation of the senses that makes you want to meet! The new superb location offers more networking possibilities and excellent sponsor opportunities. From **16-18 November 2010** you will have the possibility to discuss and debate latest key issues and challenges.

[www.cepi.org](http://www.cepi.org)

source: cepi