Recyclability – Introduction

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What topics did we have?

• Revision of INGEDE Method 11
• Updated INGEDE Deinkability Database
• Adhesive applications
  – Increased amount of stickers/coupons of German supermarkets and discounters
  – Exemption from testing of certain adhesives
Revision INGEDE Method 11

- Published in January 2018
- Adoption of pulping conditions based on fibre concentration (i.e. ash content)
- Insufficient pulping of printed paper products with high ash content is improved compared to fix stock concentration of former versions of the method
- INGEDE Project 151 16 compared the new procedure with the old one by various deinking tests at CTP Grenoble, PMV Darmstadt, and PTS Munich

INGEDE Deinkability Database

- Since 2005 over 770 printed products have been tested according to INGEDE Method 11
- Continuously updated with new samples
- Categories help to identify paper and ink combinations that are suitable or detrimental to the deinking process
Average Deinkability Results of all Printing Technologies

Summary on Deinkability

- **Most printed products** are sufficiently deinkable – standard offset, rotogravure, dry toner
- **Pigment based inkjet** – mostly **low brightness**, sometimes ok (also depending on paper)
- **Dye based inkjet** – mostly **low brightness** and often (green) **colour shade**
- **Liquid toner** – market leader insufficiently deinkable due to **dirt specks**
- **UV cured systems** – mostly problematic due to **dirt specks**
Stickers/Coupons

- Frequent spreading of coupons of super markets and discounters in Germany since autumn 2017

- Some member mills reported issues with stickies, and investigations brought up such A4 sheets of stickers on release paper in the PfR

- Working group shared mill experience, initiated discussions, tests, and possible actions

- Different label stocks showed different recyclability behaviour tested with Method 12

- Discussions with parties involved are ongoing
EPRC Scorecard for the Removability of Adhesive Applications

• Based on test results and discussions with experts and associations an exemption list for testing has been agreed upon, approval by EPRC pending

• The following adhesive applications are categorized as uncritical for the recycling loop:
  – Hotmelt adhesives insoluble in water
    Minimum film thickness 120 µm and 1.6 mm circle equivalent diameter of application, R&B temperature above 68 °C
  – Reactive hotmelts
    Minimum film thickness 60 µm

Today’s Presentations

• Ecolabels: Soft Legislation to Educate Printers and Print Customers – Andrea Rimkus, RAL Environment, Bonn

• INGEDE Project 153 17: Deinkability Survey – Hans-Joachim Putz, PMV, Darmstadt

• Coffee Break

• History of Inkjet Printing and New, Better Deinkable Inkjet Processes – David Croll, Océ Printing Systems, Poing

• UV Inks and Varnishes – Opportunities, Markets, Technology, and Deinkability – Roland Schröder, hubergroup, and Axel Fischer, INGEDE, Munich