

Recyclability

Databases, Scorecards, Standards

Andreas Faul
International Association of the Deinking Industry
(INGEDE)

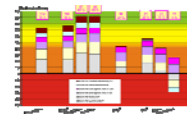
26th INGEDE Symposium

8 February 2017
Munich, Germany

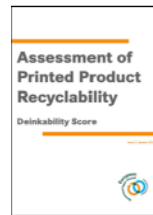


Tools and Activities

- Databases
 - Deinkability test results – about 750 entries
 - Removability of adhesive applications – about 140 entries
- Scorecards
 - Deinkability
 - Removability of adhesive applications
 - Used by four ecolabels in Europe
- ISO Standards (in progress)
 - ISO 21993 Deinkability test (based on INGEDE Method 11)
 - ISO 21331 Assessment guidelines



Deinking Scorecard



New release January 2017

- Contains an annex which exempts good deinkable products from testing
 - Offset heatset on coated paper and with standard inks
 - Rotogravure on uncoated and coated paper, printed with inks without soluble dyes
- Editorial update

The ERPC Deinking Scorecard refers to INGEDE Method 11

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Removal Scorecard



Current version May 2011

- Limited to assessment of macrostickies
- Efforts underway to extend the assessment also to microstickies / redispersible adhesive applications

IVK (German association “Industrieverband Klebstoffe”) is also interested in an exemption from testing for uncritical applications

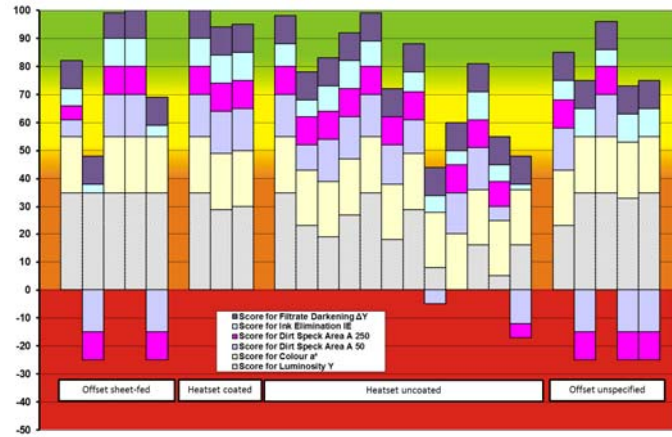
- Ideas: Application must have a film thickness above xx μm and adhesive must have a softening temperature above yy $^{\circ}\text{C}$
- Last meeting with IVK on 5 Dec 2016

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Deinkability Test Database Offset (new entries 2015/2016)

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Paper for Recycling
Deinking Process



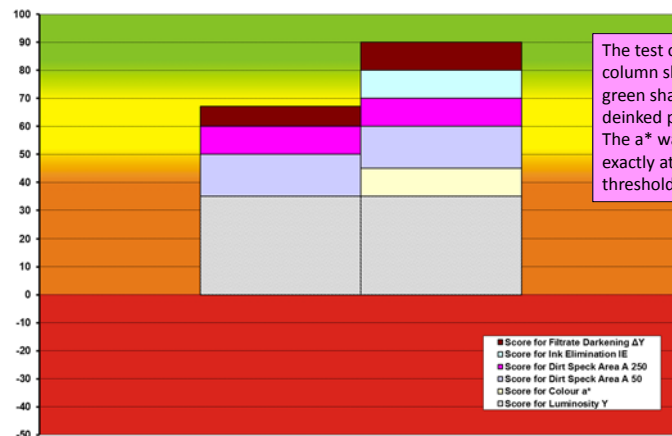
There are 12 tests with mineral oil free inks (represented in all four groups). 7 passed, 5 failed.

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Deinkability Test Database Rotogravure (new entries 2015/2016)

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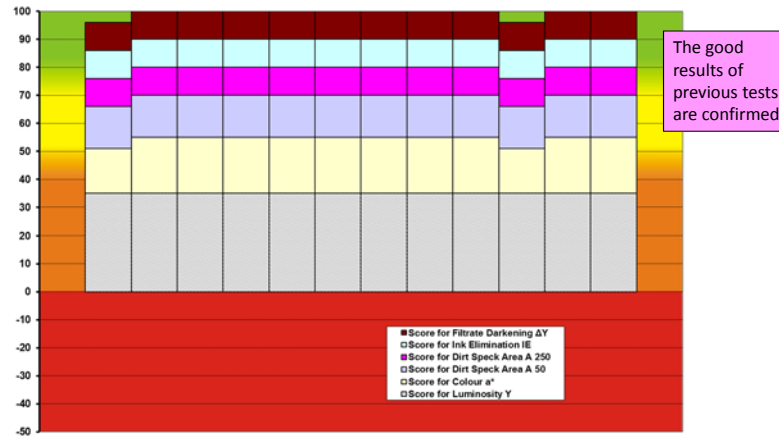
The test of the left column showed a green shade of the deinked pulp. The a^* was at -3,0, exactly at the threshold.

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Deinkability Test Database Toner Dry

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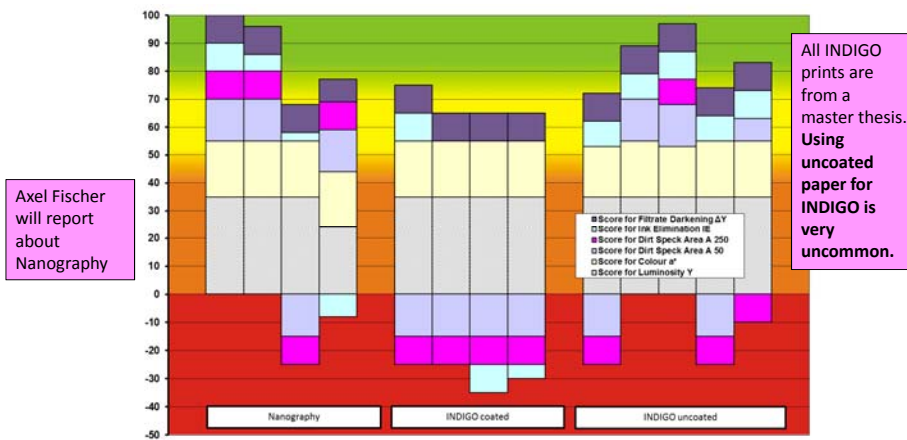


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Deinkability Test Database Liquid Toner (new entries 2015/2016)

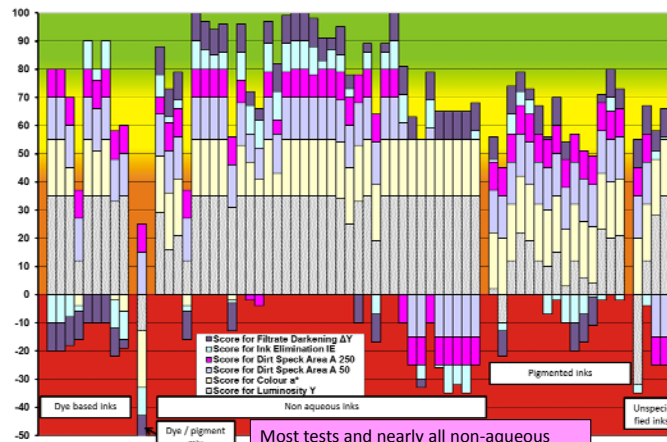
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Deinkability Test Database Inkjet (new entries 2015/2016)



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INGEDE Methods



- **INGEDE Method 11 – Deinkability test**
 - Last release July 2012, currently under revision
 - Auxiliary documents: INGEDE Methods 1 & 2
 - INGEDE Method 11 is linked to the ERPC Deinking Scorecard and is the base of DIN SPEC 55700 and ISO 21993
- **INGEDE Method 12 – Removability test**
 - Current release January 2013
 - Auxiliary document: INGEDE Method 4
 - INGEDE Method 12 is linked to the ERPC Removal Scorecard
- **INGEDE Method 13 – Macrosticky formation rate**
- **INGEDE Method 16 – Red colouration test**

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ISO Standardisation



- ISO 21331
 - Current title: **Assessment guidelines for the deinkability potential of printed matter**
 - Work item (WI) approved in April 2016
 - Discussion ongoing about the concept of the document
- ISO 21993
 - Title: **Deinkability test for printed paper products**
 - Document is based on INGEDE Method 11, DIN SPEC 55700
 - WI approved in December 2016, first meeting 31 Jan 2017
 - New ISO/TC 6 WG 14 “Recycling”, convenor: Andreas Faul

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INGEDE. We are the Deinkers.

INGEDE Office

Gerokstr. 40
74321 Bietigheim-Bissingen
Germany

Phone +49 7142 37522-21
Fax +49 7142 37522-20
Mail office@ingede.org

INGEDE Public Relations

Oetztaler Str. 5 B
81373 München
Germany

Phone +49 89 769-2332
Fax +49 89 769-2338
Mail info@ingede.org

www.ingede.org

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