

# FPPA 12<sup>th</sup> Annual Convention



# Kodak

02 March 2009

Dr. John Anderson

# Welcome & Introduction

- Swansea University – Mech. Eng., Metal Casting, Screen Printing, Digital Printing → EFTA UK
- Consultant For Print Simulation Training → FTA
- Joined Kodak Packaging Team In November 2007
  - Global Product Marketing Manager Flexo



**Kodak**

# Contents

- Kodak Packaging Overview
- What's new in Flexo at Kodak ?
  - Kodak Flexcel** NX Digital Flexographic System
  - Kodak** Washout Solutions and Recycling Systems
  - Kodak** DITR Film – thermal imaged film
- A few words about sustainability
- Conclusions
- Questions & Answers
- Close & Contact Details

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The Kodak logo is displayed in red text. It is preceded by a thick yellow horizontal line that extends across the width of the slide and ends in a stylized, folded ribbon-like shape on the right side.

# Kodak Packaging Overview

## Kodak is the World Leader in Imaging

Every day Kodak touches the lives of more than a half billion people



About 70 million pictures are captured daily with **Kodak** Digital Cameras or Film

Kodak Products touch about 40% of the world's commercially printed pages



90,000+ **Kodak** Photo Kiosks are installed worldwide

**Kodak** Gallery has 70 million members; manages more than four billion images



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The Kodak logo in red, with a yellow ribbon-like graphic element extending from the bottom left.

# Kodak Packaging Overview

Kodak is a leading innovator in the packaging market

- Continuous development and R&D investment
- Solutions to print every type of packaging
- Worldwide service and support

Flexible Packaging



Corrugated packaging



Folding cartons

Labels and tags

**Kodak**

# Kodak Packaging Overview

A complete range of integrated solutions

**Proofing**



**Security**



**Consumables**



**Workflow**



**Output**

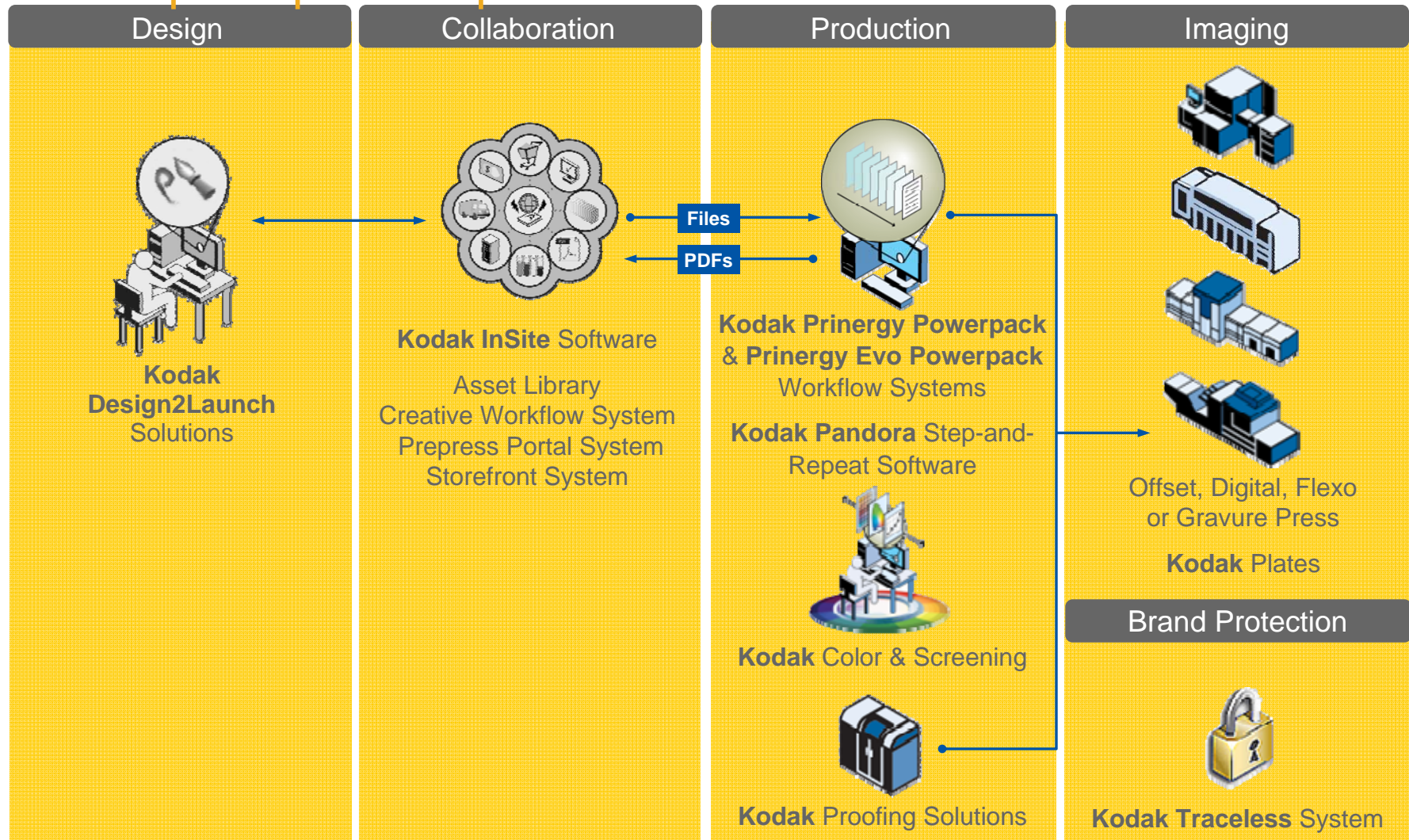


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# Kodak Packaging Overview

A complete product portfolio



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# What's new in Flexo at Kodak?

- Kodak is unique. We supply complete prepress and platemaking solutions to the flexo industry, including:

Workflow, Proofing, Imaging, Plates, and Platemaking Solutions

- Time today does not allow us to cover the complete portfolio
- So we will focus on developments in three areas

**Kodak Flexcel** NX System  
*remember*

*two key benefits to*

**Kodak** Washout Solutions  
and Recycling

*solvent processing,  
take the benefits. eliminate the*

**Kodak**



The **Flexcel** NX System . . .  
*two key benefits to remember*



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# Flexcel NX System Update

## Product overview reminder

- A new innovative digital Flexo plate system from Kodak
- Consists of the following components:
  - **Kodak Trendsetter NX Imager**
  - **Kodak Prinergy Workflow System**
  - **Kodak Flexcel NX Laminator**
  - **Kodak Flexcel NX Thermal Imaging Layer**
  - **Kodak Flexcel NXH Flexographic Plates**
    - 24" x 30" (610 x 762 mm)
    - 31.5" x 42" (800 x 1067 mm)



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# Flexcel NX System Update

Making a plate – 5 simple steps

1. Image the **Flexcel** NX Thermal Imaging Layer in the **Trendsetter** NX Thermal Imager
2. Laminate the imaged layer to the **Flexcel** NXH Plate



3. Expose the back and face side of the layer and plate
4. Simple removal of the **Flexcel** NXH plate from the layer
5. Standard solvent processing

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# Flexcel NX System Update

Two key benefits to remember

- **Flexcel** NX System achieves stable flat top dot structure

Consistent structure → ***predictability and repeatability on press***

Even impression → ***faster to color***

Resistant to wear → ***longer plate life***

- **Flexcel** NX System enables 1:1:1 reproduction in platemaking

Bitmap to plate 1:1 → ***no more guess work***

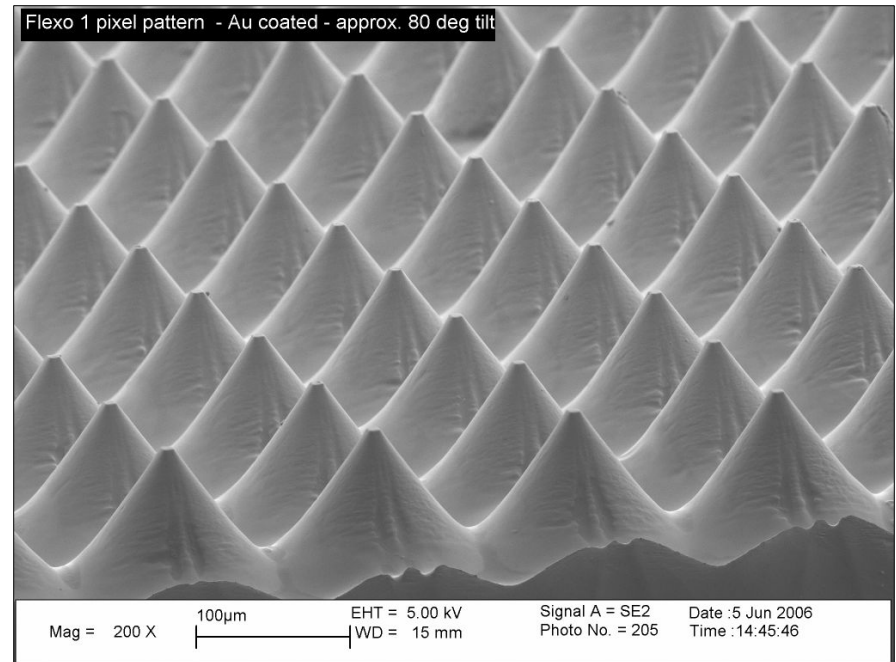
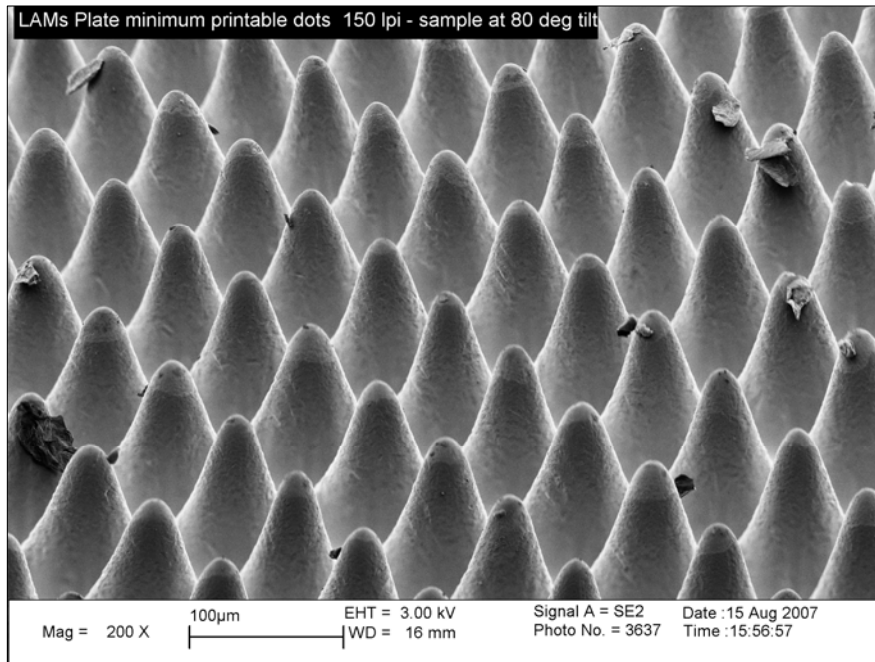


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# Flexcel NX System Update

## Stable Flat Top Dot Structure

### Traditional Digital Plate vs Flexcel NX Plate



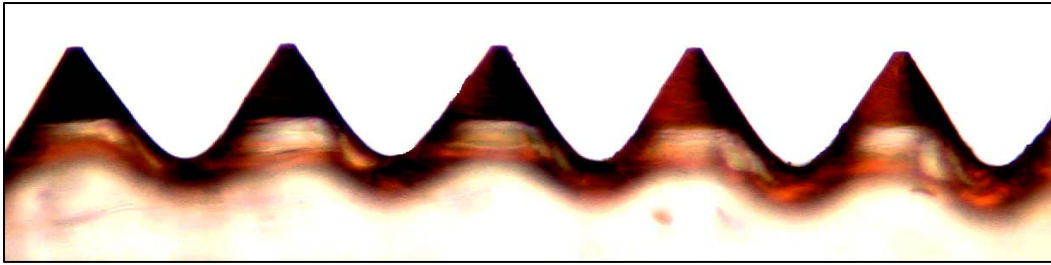
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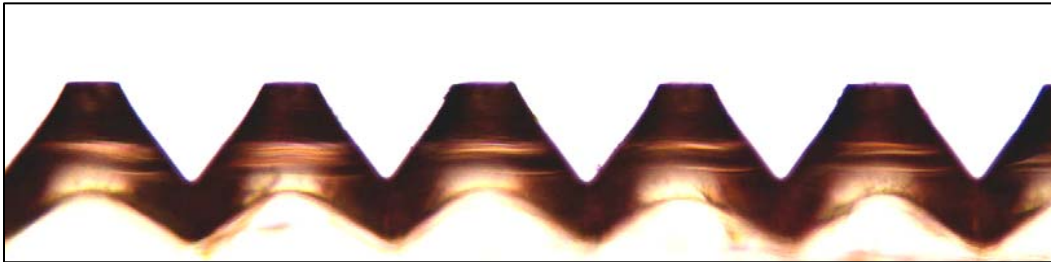
# Flexcel NX System Update

## Stable Flat Top Dot Structure

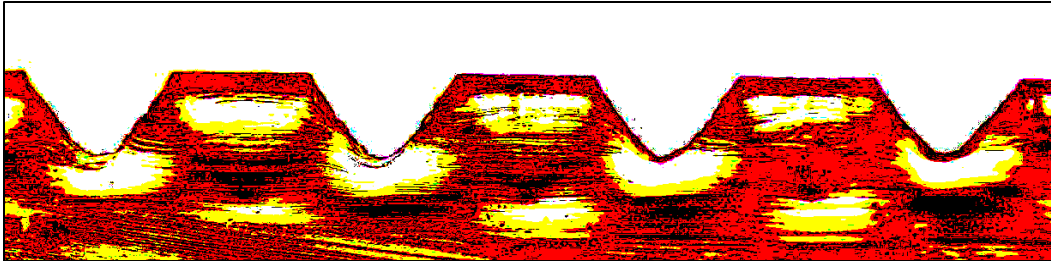
0.4%



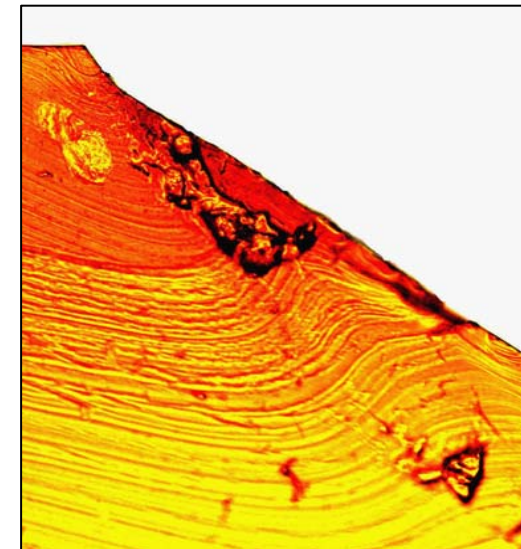
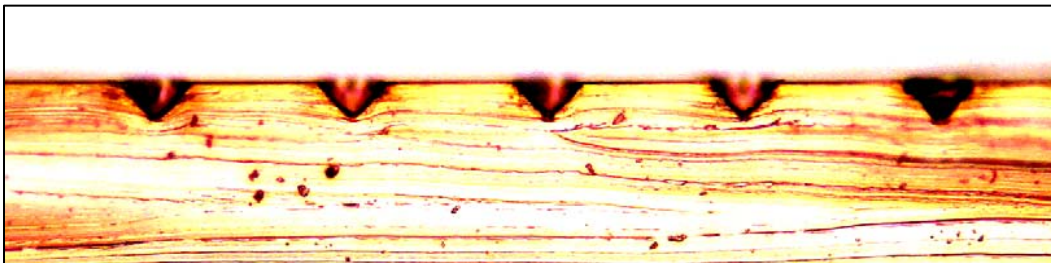
10%



50%



90%



Ramp shoulder  
close-up

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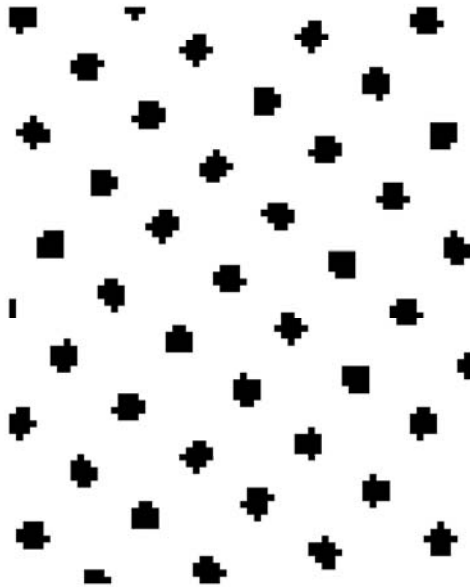


# Flexcel NX System Update

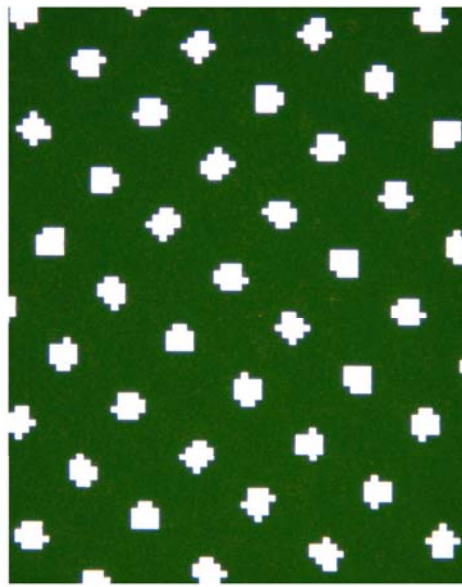
## 1:1:1 reproduction in platemaking

10% dots, 200 LPI, 52 deg

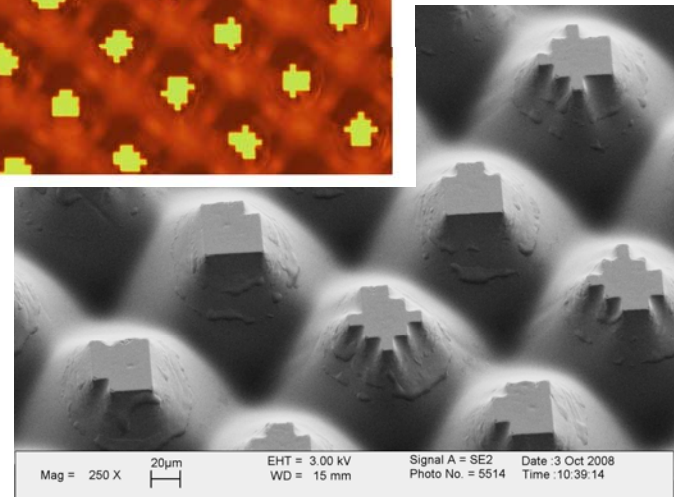
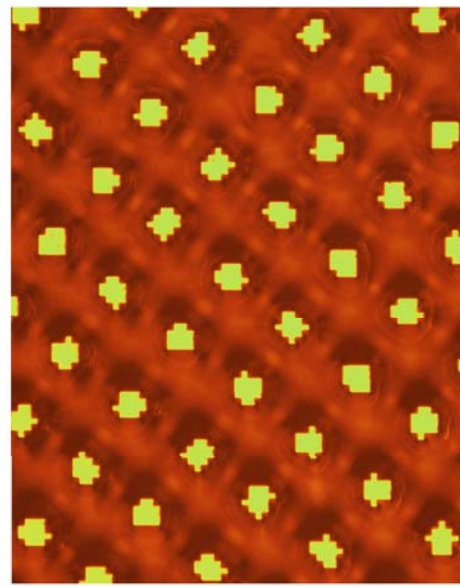
File BITMAP



TIL Mask



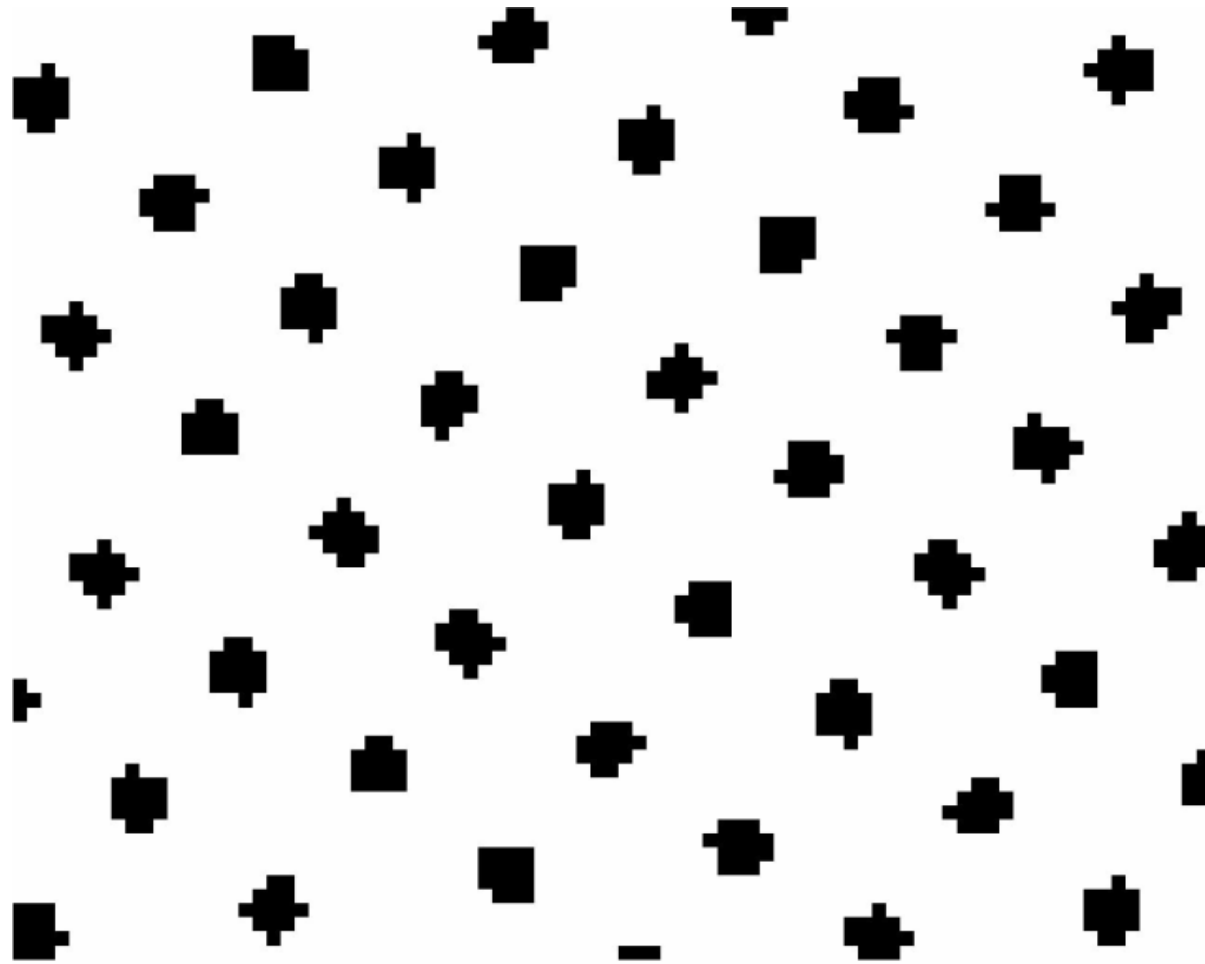
Flexcel NXH Plate



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# Flexcel NX System Update

1:1:1 reproduction in platemaking

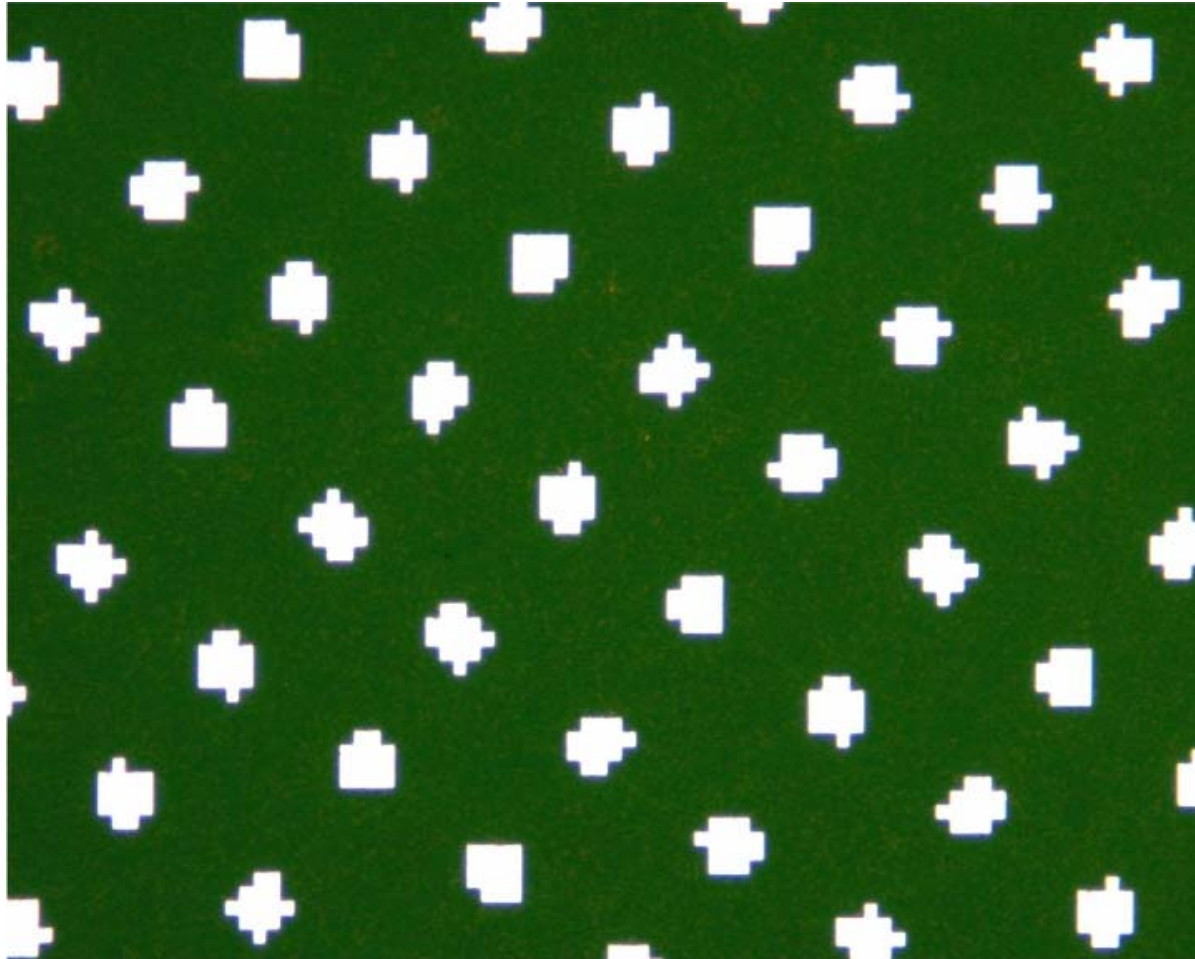


Digital File

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# Flexcel NX System Update

1:1:1 reproduction in platemaking

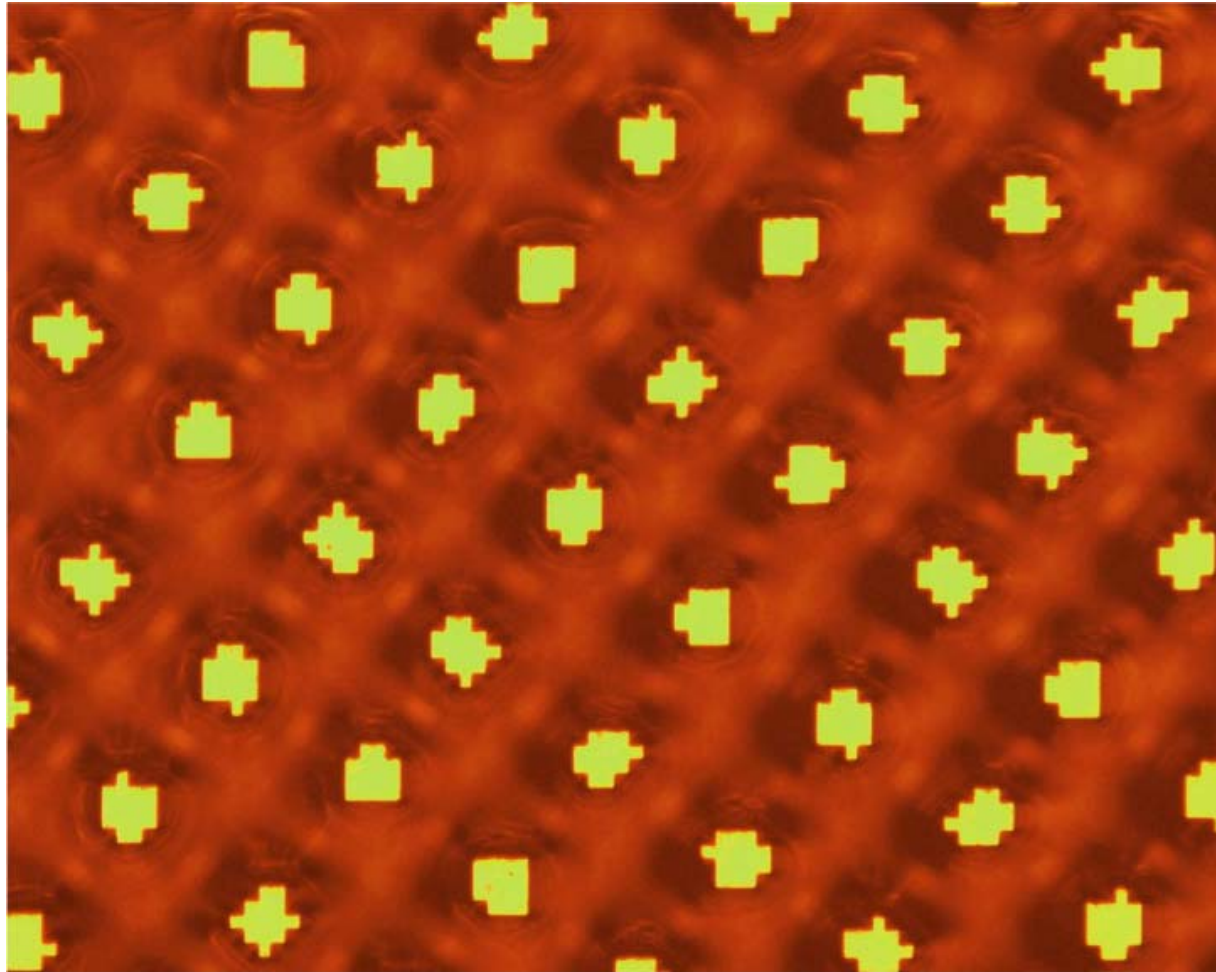


Flexcel NX Thermal Imaging Layer

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# Flexcel NX System Update

1:1:1 reproduction in platemaking



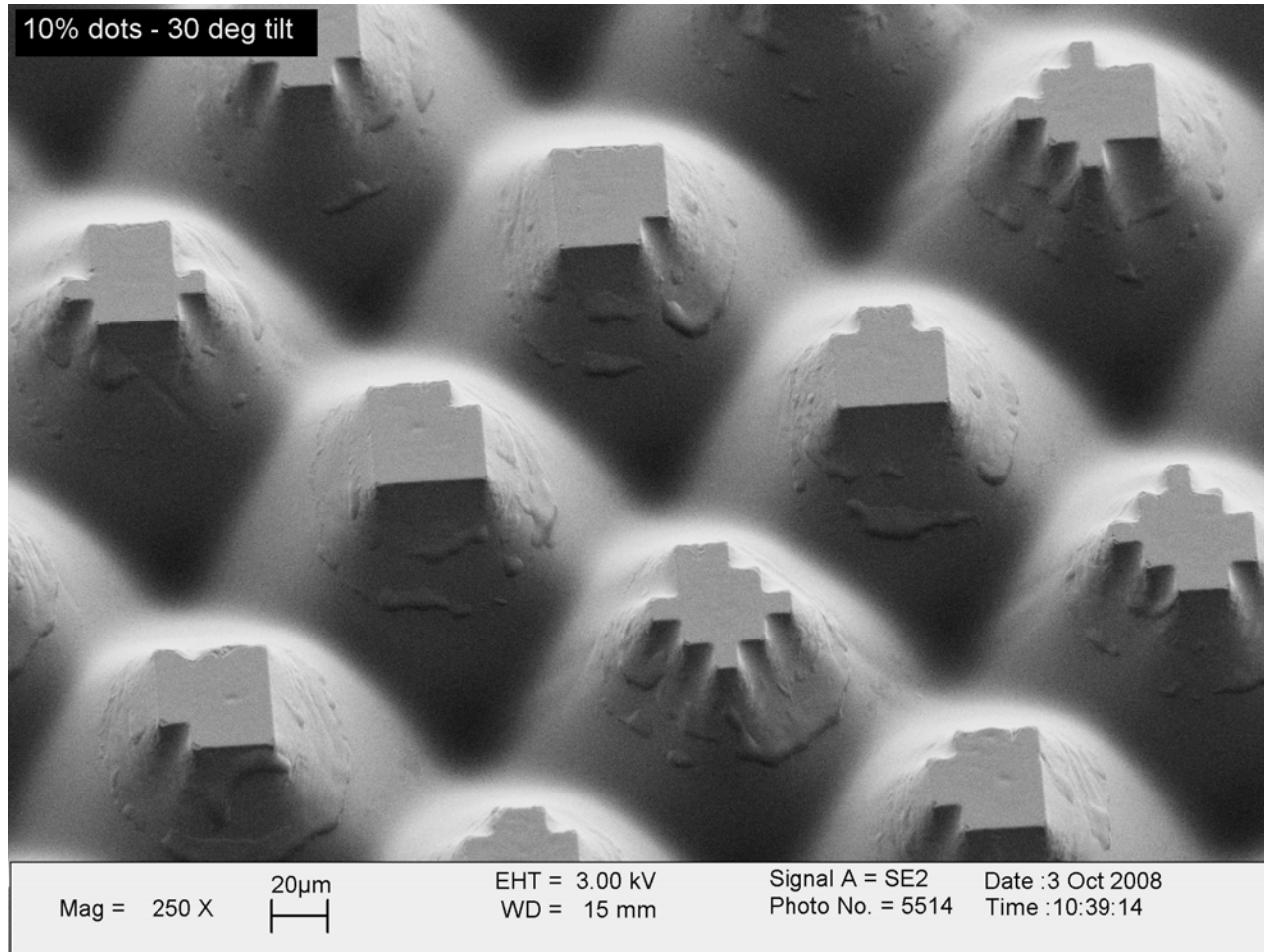
**Flexcel NXH Plate**

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# Flexcel NX System Update

## 1:1:1 reproduction in platemaking



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# Flexcel NX System Update

Two key benefits to remember

- **Flexcel** NX System achieves stable flat top dot structure

Consistent structure → *predictability and repeatability on press*

Even impression → *faster to color*

Resistant to wear → *longer plate life*

- **Flexcel** NX System enables 1:1:1 reproduction in platemaking

Bitmap to plate 1:1 → *no more guess work*



**Outstanding quality; Improved efficiency**

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**Kodak**



## Kodak Washout Solutions and Recycling . . .

*solvent processing; take the  
benefits, eliminate the concerns*



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A decorative graphic at the bottom of the slide consisting of several horizontal yellow lines of varying lengths and thicknesses, some of which are slightly offset or layered.

# Kodak Washout Solutions and Recycling

## Solvent processing. Take the benefits, eliminate the concerns

- Today's dilemma: Which plate processing technology to choose?  
Solvent, water wash, thermal ?
- What do we want?  
The performance of solvent processed plates without the nasty smelly solvents and the headaches and hassle of distillation

- ***Kodak's answer:***

**Flexcel NX:** *A solvent processed plate solution that gives outstanding quality and drives efficiencies*

**Kodak Washout Solutions:** *Modern, safe and innovative flexographic washout solutions – a new wave in solvent processing*

**Kodak Flexcel CRS System:** *An innovative, cold recycling system for flexographic washout chemistry, that provides a safer, lower maintenance, cost-effective alternative to distillation.*



**Kodak**



# Kodak Washout Solutions and Recycling

Solvent processing. Take the benefits, eliminate the concerns

- **Kodak Flexcel** Washout Solutions offer significant technological advantage over traditional washout solvents
  - low natural odor
  - work at ambient temperatures
  - clean working
  - rapid processing
  - improved drying
  - minimal swell
  - reduced VOC content

Brand new products that bear no resemblance to the solvents of yesterday



**Kodak**

# Kodak Washout Solutions and Recycling

Solvent processing. Take the benefits, eliminate the concerns

Sneak Preview  
Launching very soon.....

## Kodak Flexcel CRS System



Product Representation

The **Kodak Flexcel** CRS System is an innovative, cold recycling system for flexographic washout chemistry that provides a safer, lower maintenance, cost-effective alternative to distillation.

The CRS uses proprietary Kodak technology to recycle washout chemistry **without the use of heat or a distillation process.**

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# Kodak Washout Solutions and Recycling

Solvent processing. Take the benefits, eliminate the concerns

## Kodak Flexcel CRS System - Features and benefits

- |                                   |   |
|-----------------------------------|---|
| - Safe                            | no heat, no distillation  |
| - Space Saving                    | no explosion proof room required, compact   |
| - Cost Effective                  | reduce recycling running costs by up to 95%   |
| - Convenient                      | inline, on demand process, automated  |
| - Low Maintenance                 | simple self clean, no kettle scraping   |
| - Expandable                      | modular design, expands with your needs   |
| - Better for the Environment      | less power, emissions and consumables   |
| - Process Control in Plate Making | processor can run virtually fresh at all times<br>more consistent predictable plates<br>more consistent predictable printing<br>.....coming very soon |



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Kodak DITR Film . . .

*say goodbye to silver halide*

A graphic element consisting of two parallel yellow lines that converge towards the right, ending under the word 'Kodak'.

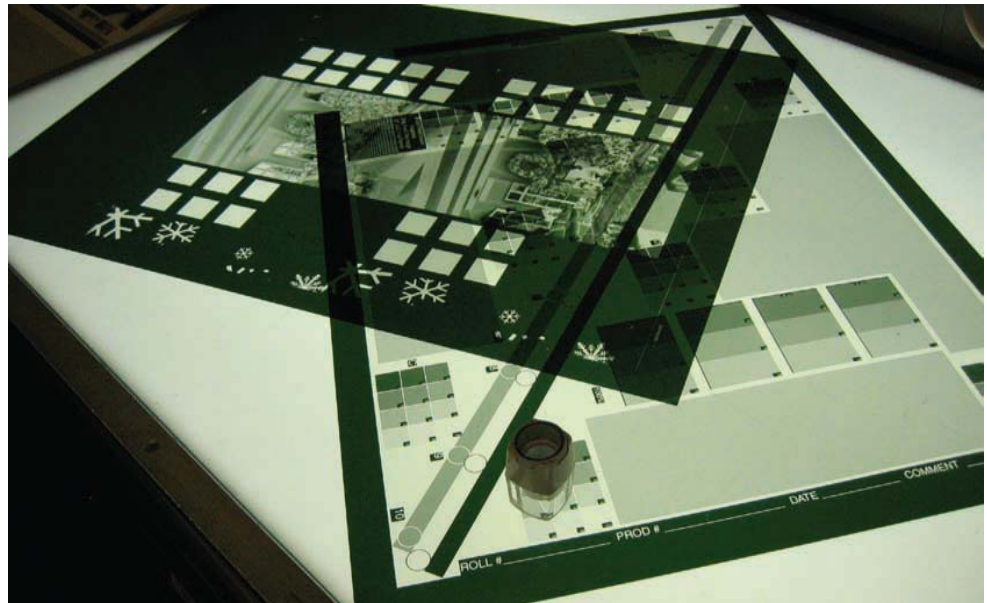
**Kodak**



# Kodak DITR 2401 Film

Say goodbye to silver halide

- Thermal ablative film
- Alternative to chemical wet process films
- No chemicals involved in the process
- No need for film processor
- Imaging onto **Thermoflex** at 830 nm
  - **Trendsetter** NX in future
- High quality on film



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# Kodak DITR 2401 Film

## Working with DITR film

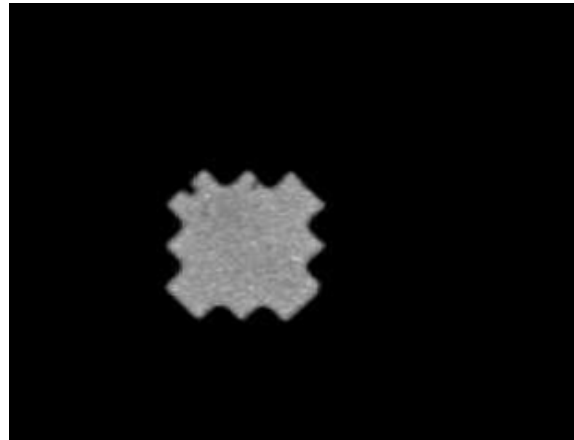
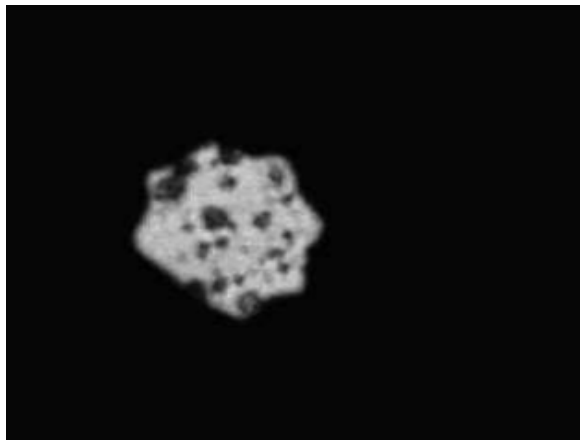
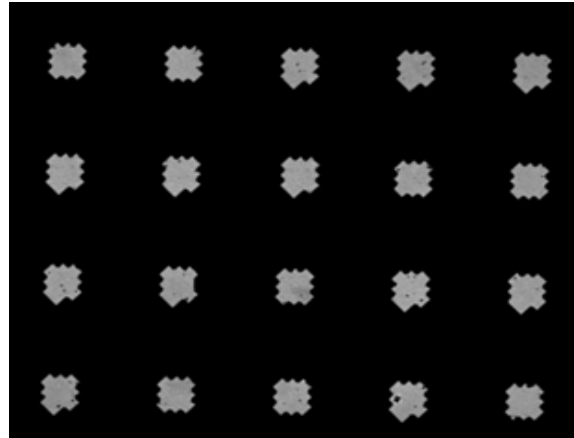
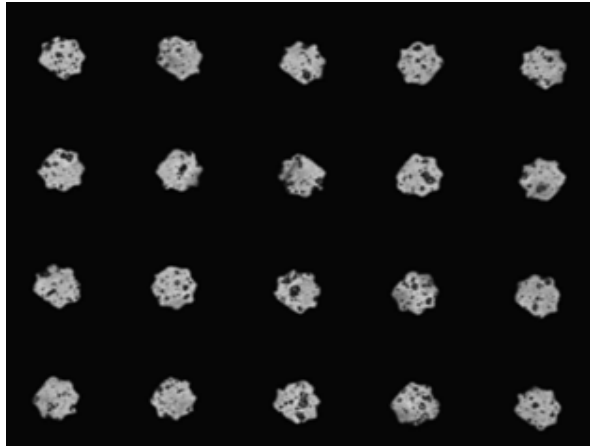
- Available sizes:
  - Rolls 50" (1270 mm) x 45 m
  - Sheets 760 x 760 mm
- Thickness: 0.0065" (0.165 mm)
- Resolution up to 200 lpi
- Tonal Range 1% - 99%
- Allows use of screening technologies
- It's gloss surface makes DITR 2401 ideal for liquid photopolymer processing



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# Kodak DITR 2401 Film

10% screen Silver Halide vs **DITR** 2401

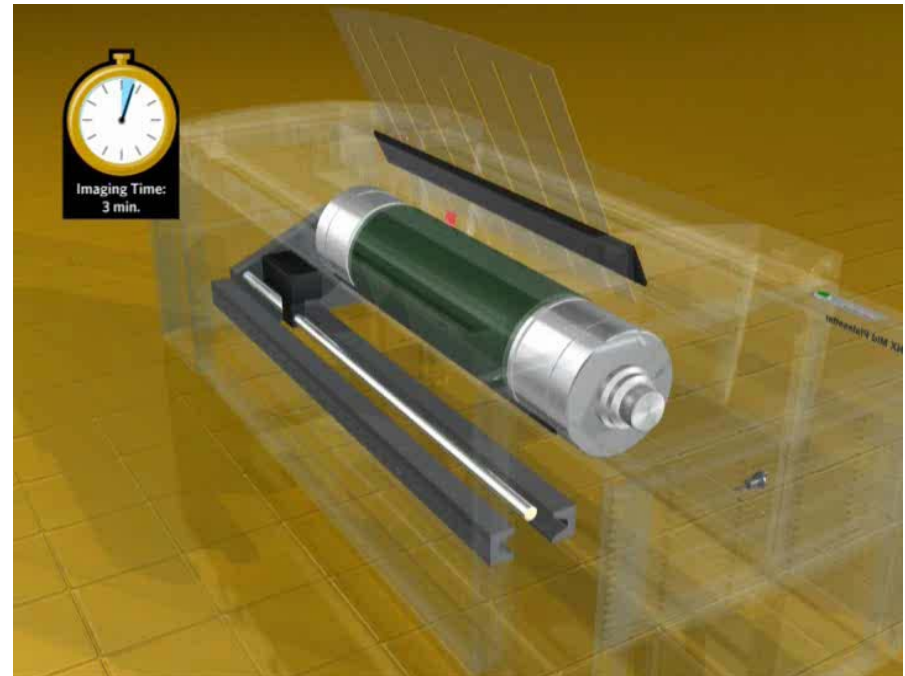


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# Kodak DITR 2401 Film

## Unmatched features

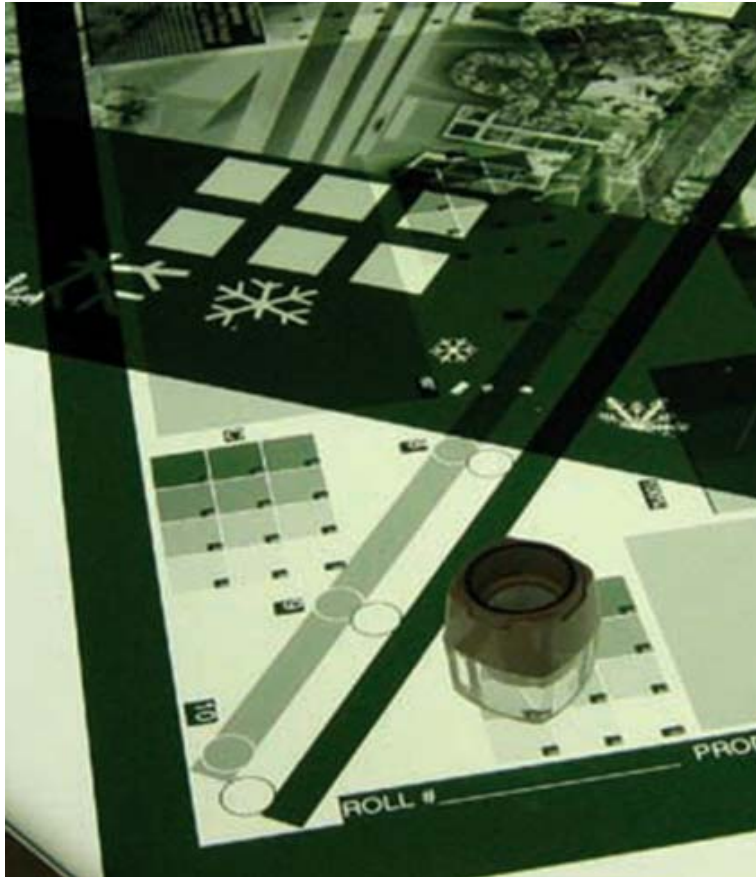
- Imaging speed up to 60% faster vs traditional digital flexo plate.
- After imaging the film is ready for use
- No debris or ablation residues on the product
- No further cleaning is necessary



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# Kodak DITR 2401 Film

Green by fact



- No chemical products for developing and fixing
- No liquid waste to be disposed
- Chemically inert
- Debris residues in filters and media after usage can be disposed as normal office waste

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# Kodak DITR 2401 Film

## Advantages not to be overlooked

- Get rid of filmsetter imaging device
- Get rid of film processor and its chemicals
- Better use of your ThermoFlex system
- More productivity
- Better quality

... and a logical follow on will be

- a matt surface version: DITR 4401
- Digital negative films for conventional platemaking:
  - Flexo plates (no bump required)
  - Letterpress plates
  - Coating plates
  - Silkscreen frames
  - Soon on your plates!



**Kodak**



Sustainability . . .  
*taking care of the future*



**Kodak**

# A Few Words about Sustainability

## Making a flexo plate choice

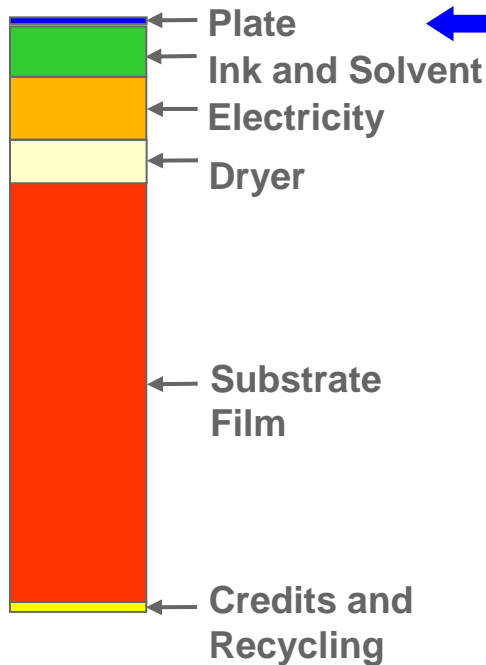
- We read a lot about flexo plate choice and sustainability these days
- Should you go thermal? Or water wash? Or solvent processed?
- Actually, you should be asking yourself a different question
- To look at the true sustainability benefits of a particular plate choice you must look beyond the plate making and plate processing and look at the whole Flexographic printing picture.
- You need to take a look at the impact your plate has on *“the big picture”*



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# A Few Words about Sustainability

## Let's Consider the Whole Flexographic Printing Process



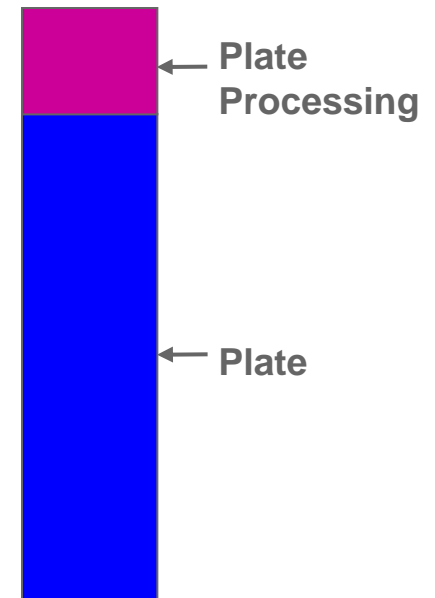
Recently publically published independent studies demonstrate that although the flexo printing plates have a significant impact on quality and end result for the customer..... they only represent a very small part of the overall non-renewable energy consumption utilized in the flexographic printing process.

**Reduction in substrate waste has a significant positive impact on sustainability.**

If we consider the plate component, independent studies once again agree.

The plate itself contributes significantly more to the non-renewable energy consumption than the plate processing component.

**Reduction in plates produced has a significant positive impact on sustainability.**



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# A Few Words about Sustainability

## Flexcel NX as your plate of choice

- The **Flexcel** NX System was designed to produce plates with predictable flat top dots, deep relief and strong shoulder angles.
- This means plates that are fast to color, resistant to changes in impression, resistant to substrate wear and require less cleaning.
- And faster make ready times, fewer cleaning stoppages and fewer plate changes.

***The result is a significant reduction in ink and substrate waste . . .  
better for you, better for the environment.***

- The **Flexcel** NX System's 1:1:1 imaging process means predictable plate making – **less wasted plates and remakes.**
- Predictable flat top dots, deep relief and strong shoulder angles mean plates that last significantly longer on press – **fewer sets of plates required.**
- Superior highlight and shadow performance reduces need for spot colors, you can 'do more with four' – **less spot colors, less plates.**

***The result is a significant reduction in plates made  
better for you, better for the environment.***



**Kodak**

# Summary & Conclusions

- **Kodak** is more than the world leader in imaging
- **Kodak** has the broadest offerings in the packaging industry and is here to stay
- **Kodak** delivers innovative solutions designed to sustain and grow flexo printing
- **Flexcel NX** Outstanding quality: improved efficiency  
**Flexcel CRS System** Innovative solutions for solvent processing  
**Kodak DITR Film** The silver halide alternative
- When choosing a flexo plate solution with sustainability in mind, choose one that will significantly:
  - reduce your substrate waste
  - reduce the number of plates you use
  - .....and deliver you the quality you need to grow your business

## ▪ Pushing the Boundaries of Flexo Printing



**Kodak**

# Questions & Answers



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**Kodak**

# Close & Contact Details

- Dr John Anderson
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- Cell: +1 412 266 6995
- Email: [john.anderson3@kodak.com](mailto:john.anderson3@kodak.com)
- [www.kodak.com/go/flexo](http://www.kodak.com/go/flexo)



**Kodak**

The Kodak logo is positioned at the bottom right of the slide. It consists of the word "Kodak" in a bold, red, sans-serif font. Below the text, there is a stylized yellow graphic element that resembles a horizontal line with a small, upward-pointing arrow or tab on the right side.