

Kodak Flexcel NX
Digital Flexographic System

Anything
is possible



A wide range of applications

Pushing the boundaries of flexo printing, the **Kodak Flexcel NX System** allows you to "Do More with Flexo" in a wide range of applications.

A flexographic solution that truly matches the strengths of gravure printing for flexible packaging, the **Flexcel NX System** enables flexo printing with high line screens (175 lpi+), high print densities and reliable, consistent quality. Furthermore mid- and wide-web flexible packaging printers can benefit from switching existing flexo jobs to **Flexcel NX Plates** and enjoy improved quality at current print conditions, as well as cost benefits from faster set up times, plates that last longer and the ability to print outstanding quality with fewer colors.

Kodak Flexcel NX Plates enable label printers to take quality and efficiency to the next level. Enjoy outstanding print quality at line screens in excess of 200 lpi on a wide variety of paper and film substrates, with fine detail, high contrast, and an image depth that makes product photography appear to jump off the label. The solution is also ideal for the growing shrink sleeve label market, producing gravure-like quality in both UV and solvent ink applications.

Producers of high-value folding cartons can enjoy print quality comparable to offset and all the cost benefits that flexo brings for in-line decoration. Take advantage of working with offset separations, offset angles, even stochastic screening to produce high impact cartons with photorealistic images and decorative features.

Capabilities that push the boundaries of traditional flexo printing open doors for brand new flexographic applications. Use the high resolution capabilities of the **Flexcel NX System** to incorporate microtext into a label or carton design to provide a cost effective overt security feature, or leverage superior accuracy to consider production of roll to roll lenticular labels for shelf impact that will wow consumers.



Raising the bar for flexo

Take flexographic printing to a whole new level with the **Kodak Flexcel NX** Digital Flexographic System, a complete solution for the production of flexographic plates that elevates print quality and revolutionizes print stability. Setting a new standard for digital flexo, the **Flexcel NX** System is designed for a wide range of mainstream packaging applications and uses unique technology to deliver results that surpass those achievable with traditional digital flexographic plate technology, finally bringing design freedom, predictability and consistency to flexography.

Do More with Flexo

The fine image reproduction and high print densities delivered by the **Kodak Flexcel NX** System allow trade shops and printers to compete for business traditionally outside the capabilities of flexo, enabling print buyers to take advantage of the flexibility and cost-effectiveness of flexography without having to compromise the level of print quality they would normally expect from gravure, offset or digital printing.

Reduce production costs

A printing plate has the power to drive significant cost savings on press, and the **Kodak Flexcel NX** System was designed with just that in mind. The high resolution, flat-top dots for which **Kodak Flexcel NX** Plates have become well known, deliver wide impression latitude, fast set-ups and long plate life. As a result users find that makeready wastage costs can decline 25%, and their plates are capable of run lengths two to four times greater than traditional digital flexo plates.

COMPLETELY INTEGRATED TURNKEY SOLUTION

Kodak Flexcel NX Imagers

Kodak Flexcel NX Mid and Narrow Imagers utilize **Kodak SQUAREspot** Imaging Technology to provide exceptional image quality on the **Kodak Flexcel NX** Thermal Imaging Layer. The device can also be used to image materials used in the **Kodak Flexcel SRX** System, and an optional hybrid upgrade enables the imaging of digital offset plates.



Kodak TIFF Front End Software

Powerful **Kodak** TIFF Front End Software drives the **Kodak Flexcel NX** Imager and allows operators to preview and inspect files for accuracy before imaging, and optimize media usage by arranging multiple separations on a single plate. The result is outstanding device control and job management, fast processing speeds and simplicity of operation.

Kodak DigiCap NX Screening

Kodak DigiCap NX Screening is implemented in the **Kodak** TIFF Front End and utilizes the high resolution capabilities of the **Flexcel NX** System to create a micro texturization pattern on the surface of all plate elements, significantly boosting ink transfer efficiency.

Kodak Flexcel NX Laminator

The **Kodak Flexcel NX** Laminator is used to laminate the Thermal Imaging Layer to the **Flexcel NX** Plate prior to exposure and processing. While quick and simple, the lamination stage is critical because it removes all oxygen between the imaged layer and the plate, allowing the creation of full-amplitude, robust, flat-top dots.



Kodak Flexcel NX Thermal Imaging Layer

The unique formulation of the **Flexcel NX** Thermal Imaging Layer allows high resolution and fast imaging, and intimate optical contact with the plate during UV exposure.

Kodak Flexcel NX Digital Flexographic Plates

Kodak Flexcel NX Digital Flexographic Plates are reliable, high quality flexographic plates designed to print on a wide variety of substrates. They offer superior ink transfer, smooth solids, uniform laydown, robust on-press performance and excellent ozone resistance.



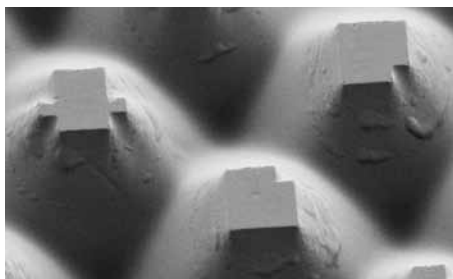
COMING SOON: Kodak Flexcel NX Wide System

INNOVATION THAT DELIVERS

The **Flexcel NX** System uses unique technology to deliver print quality and print performance that is a significant step ahead of traditional digital flexo. It combines high-resolution imaging with materials science and software expertise to produce printing forms that are an identical reproduction of the original digital file with an optimized dot structure for printing.

Flat-top dots

Unlike traditional digital flexo plate making where oxygen inhibition during UV exposure causes the dot profile to become rounded, especially in highlight areas, the **Flexcel NX** System eliminates all oxygen during UV exposure to produce full amplitude flat-top dots with sturdy bases and strong shoulders. This dot structure is the key to superior on-press performance, delivering a consistent, repeatable printing form that is resistant to changes in impression and wear from substrate or cleaning.



One-to-one image reproduction

Not only is the production of **Flexcel NX** Plates consistent and repeatable, it is highly predictable. The **Flexcel NX** System is the only flexographic system that enables true one-to-one reproduction of the image from file to plate. The combination of **Kodak SQUAREspot** imaging, the fidelity of the Thermal Imaging Layer and the process of exposure in the absence of oxygen mean that the image in the digital file is faithfully reproduced pixel for pixel on the printing plate, taking the guesswork out of plate making and bringing total predictability to the process.

High resolution imaging

The third piece in the puzzle is high resolution imaging to ensure maximum tonal range and fine image reproduction. The **Kodak Flexcel NX** Imagers use **SQUAREspot** imaging at an effective resolution of 10,000 dpi to enable printing dots as small as 10 microns, allowing subtle highlight detail, vignettes that fade to zero and use of all available grey levels—and because of the one-to-one image reproduction and the flat-top dots, none of that detail is lost from the beginning to the end of a print run.

Superior ink transfer

Effective ink transfer has a tremendous impact on both visual appearance and print production efficiency. **Flexcel NX** Plates, with their flat-top dot structure and resistance to impression, enable higher print densities and smoother solids. A significant boost to ink transfer, in those print applications that have struggled in the past, can also be achieved through the use of **Kodak DigiCap NX** Screening, which applies a micro fine surface texturization pattern to the printing surface of the **Flexcel NX** Plate.

DigiCap NX Screening

DigiCap NX Screening is a software-based feature for the **Flexcel NX** System that enables a major step forward in ink transfer efficiency through the application of a micro surface texturization pattern to the surface of all elements on the **Flexcel NX** Plate. Print applications that traditionally struggle with efficient ink transfer can now enjoy higher print densities, smooth solid area ink coverage and expanded color gamut with process printing.

The innovative solution uses the high resolution, 1:1 reproduction capabilities of the **Flexcel NX** System to image a superfine micro pattern across the entire imaged areas of the plate. Pattern elements are only 5 by 10 microns in size and are distributed in an even pattern across all plate elements, both solids and tones. Any **Flexcel NX** System can be upgraded to include **DigiCap NX** Screening. Prior to imaging the operator simply chooses to have **DigiCap NX** Screening applied or not.

The repeatability and fineness of the surface texturization pattern has to be seen to be believed. It is these characteristics that effect the significant improvement in ink transfer.

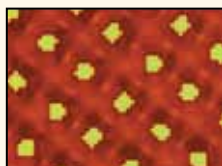
10% dots, 200 LPI, 52 deg



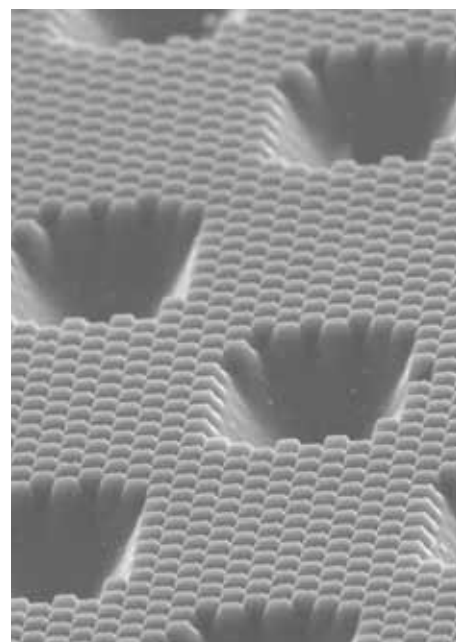
File BITMAP



TIL Mask



Flexcel NXH Plate



Sustainability

There is no doubt that the issue of sustainability is important to all of us as we make purchasing and production choices. Selecting a flexographic plate for printing is no different, and we believe that you shouldn't have to compromise on cost or performance to be sustainable.

When Kodak considers the sustainability impact of our flexographic plates, we look at the big picture. We look at the impact that our products can have on the entire production process and design them to:

- have maximum sustainability impact
- minimize production costs
- deliver outstanding performance

The **Kodak Flexcel NX** Digital Flexographic System is designed to produce plates that reduce the amount of substrate waste generated on press, and reduce the total number of plates used in production. **Flexcel NX** Digital Flexographic Plates deliver faster makeready times, fewer cleaning stoppages and fewer plate changes. Customers that print with **Flexcel NX** Plates report on average a 20% reduction in substrate waste and an overall decrease in the number of plates required due to longer run lengths and the ability to use fewer special colors, making a significant contribution to their overall sustainability goals.

PRINT BETTER

- ▶ High densities
- ▶ High contrast
- ▶ Fine detail
- ▶ Clean tones

PRINT SMARTER

- ▶ Stable, consistent, robust printing
- ▶ Fewer special colors
- ▶ Reduced waste
- ▶ Use less plates



Global service and support organization

Kodak Solutions for the packaging market are supported by a world-class team of dedicated sales, professional consulting and service staff. Our global service and support organization is fast, effective and targeted.

Leading flexographic solutions

Kodak delivers flexographic solutions designed to enable our customers to print better and print smarter. Our solutions drive business growth through increased shelf impact and production efficiencies, opening new doors for flexographic printers and service providers.

A world-class partner

From packaging concept to creation, no other partner brings a more complete solution to printer-converter, trade shops and the brand owners they serve than Kodak. Our strategic vision is to provide solutions for accurate color packaging, across any substrate, through any print process, worldwide.

To learn more about packaging solutions from Kodak:

Visit www.kodak.com/go/packaging

Produced using **Kodak** Technology.

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Kodak

It's time for you **AND** Kodak

2008
INTERTECH
TECHNOLOGY
AWARDS



Kodak Flexcel NX
Digital Flexographic System



2009
Technical Innovation Award

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