



Hot new digital
flexo technology

Kodak
Flexcel NX
Digital Flexographic System

Print quality that rivals offset, plus super

With the **Kodak Flexcel NX** Digital Flexographic System, the same high-quality image that was printed offset on a folding carton can be printed on a flexible pouch, box, or label, tying together product campaigns and providing a consistent brand experience for consumers.

The **Flexcel NX** System produces exceptional high-quality and high-resolution flexographic printing, overcoming many of the limitations of both analog and existing digital flexographic plate technologies. Capable of generating consistent dots

as small as 10 microns, the **Flexcel NX** System facilitates more accurate rendition of many designs that are simply not possible with other flexographic systems.

Offset class print quality

The **Flexcel NX** System uses a unique, specially-formulated thermal imaging layer in conjunction with **Kodak Flexcel** Flexographic Plates. **Flexcel** Plates are available in different durometers for printing on a variety of substrates, including paper, flexible film, foil, paperboard and label stock.

Maximum productivity

The **Kodak Trendsetter NX** Imager exposes the **Kodak Flexcel NX** Thermal Imaging Layer at a productivity range of up to 9.5 square meters per hour, or in about half the time it takes to image a digital flexo plate with a laser ablative mask. Loading and unloading are also faster, because no taping or clamping is required. Following exposure, the imaging layer is then laminated to the **Flexcel** Flexographic Plate—a process that takes about two minutes.

Completely integrated turnkey solution

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 Prinergy Workflow System

The **Prinergy** Workflow System for packaging is a powerful, highly automated workflow management system that delivers outstanding performance and reliability for the packaging industry.

Kodak Trendsetter NX Imagers

Kodak Trendsetter NX Mid and Narrow Imagers provide exceptional image quality through **Kodak SQUAREspot** Imaging Technology.



Kodak Flexcel NX Laminators

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

Kodak Flexcel Flexographic Plates

Once the **Flexcel NX** Thermal Imaging Layer is imaged on the **Trendsetter NX** Imager, it is laminated to a **Flexcel** Flexographic Plate. **Kodak Flexcel NX** Flexographic Plates are reliable, high-quality flexographic plates designed to print on a wide range of substrates. Excellent ink transfer, smooth solids, uniform lay down, robust on-press performance, and excellent ozone resistance are features that make these plates ideal for the **Flexcel NX** System.



Superior productivity

Breaking the limits of flexo printing

Smaller highlight dots

Analog and digital laser ablative mask flexographic technology can only reliably produce dots as small as 20 - 30 microns. Because of the printing limitations of flexo, many times a “bump curve” is used to establish the minimum printing dot, reducing printable levels of grey.

The **Flexcel NX** System allows for imaging of all grey levels, increasing the resolution in the highlight and shadow ends of the scale. No need for “bump curves” with less drastic dot gain corrections. The result is much closer to litho-like curves and considerable time savings in file preparation. The **Flexcel NX** System prints dots as small as 10 microns, allowing even subtle gradations in the highlights and the use of all grey levels.

Impression stability

Digital flexo plates are very sensitive to variations in pressure, which leads to inconsistent printing. The rounded, bullet-shaped dots result in larger printed dots with increased pressure. However, the dots produced by the **Flexcel NX** Digital Flexographic System are flat on top, so the dot gain remains more consistent with over impression.

In addition, full-amplitude, flat-top dots mean that plates won't plug with ink as quickly, avoiding press stoppages for cleaning, which increase downtime and often destroy highlight dots.



Original image as intended by the designer.



To retain some highlight detail and a smooth gradation throughout the image, a “bump curve” is applied. This can result in a flat, muddy-looking image with limited tonal range.

No “oxygen attack” during exposure

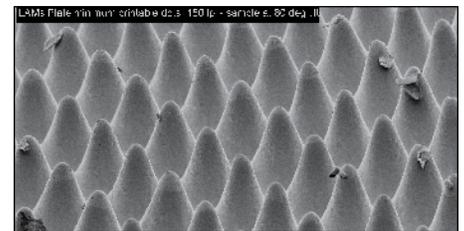
The imaged **Flexcel NX** Thermal Imaging Layer is laminated directly to the flexographic plate. The intimate contact blocks the oxygen that would typically attack the plate and cause recessed, bullet-shaped highlight dots. With the **Flexcel NX** System, dot shoulders are optimized with full-amplitude, flat top dots, reducing dot gain on press while providing consistent repeatability because of wider latitude.



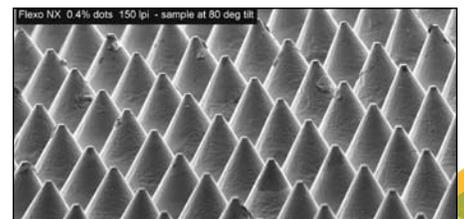
Normal flexo plates cannot resolve very small highlight dots, so an uncorrected plate would show significant highlight loss and shadow blocking.



The **Flexcel NX** System can print normal highlights without the need for a bump curve, achieving offset-like quality that is not possible with traditional flexo methods.



LAMS highlight dots



Flexcel NX System highlight dots

2008
INTERTECH
TECHNOLOGY
AWARDS



FOR INNOVATIVE EXCELLENCE™

Kodak Flexcel NX
Digital Flexographic System

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.

A world-class partner

From packaging concept to creation, no other partner brings a more complete solution to printer-converters, 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 solutions from Kodak:

Visit graphics.kodak.com
Or in North America, call +1-866-563-2533

Produced using Kodak Technology.

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