

Flexo reaching new quality heights

Kodak's Flexcel NX flexographic plate technology has gained considerable attention since it was introduced as a concept product in the spring of 2007 at the annual FFTA Forum. Now commercially available, Autumn Graphics, London, Ontario and GMF Flexo Prepress Inc., Mississauga, Ontario have been leading the trials of the Flexcel NX plates in Canada.

The NX system's claim to fame is its 10 micron flat top dot. Post imaging, the Flexcel NX 830 thermal imaging layer is laminated to a Flexcel NX digital flexographic plate. The lamination ensures intimate contact between the layer and the plate, eliminating all oxygen and allowing full amplitude, flat top highlight dots to form during UV exposure. This is said to improve resolution with subtle gradations in the highlights and use of all levels of grey. The plate has wide substrate flexibility – paper, board, flexible film, foil and label stock.

Ellis Packaging Limited, Pickering, Ontario trialed the Flexcel NX plates provided by their prepress supplier Autumn Graphics on their Primographic printing press on carton stock, and Farnell Packaging Limited, Dartmouth, Nova Scotia printed a frozen seafood pouch on polyethylene substrate with plates provided by GMF Flexo Prepress Inc., Mississauga, Ontario.

Bill McKnight, director of the web flexo division at Ellis Packaging, was intrigued with the Flexcel NX plate technology when introduced at the FFTA Forum. He approached Autumn Graphics, telling them he would be interested in trying the plates when they became available.

"My expectations were the ability to print a higher line screen, and create cleaner and smaller dots throughout the process," he relates.

Ellis ran a series of trials at line screens from 150 to 240 on folding carton stock for a Proctor & Gamble product. McKnight

settled on the level that performed well on the press - in the 200 lpi range. "The Flexcel flat top dot means that the plates are not plugging up as quickly with ink. We are avoiding stoppages for cleaning which decreases our downtime. It also makes impression setting much easier, and we are experiencing longer plate life."

Halftones are clean throughout the production run, with impressive highlight areas, and dot gain is significantly reduced. "Although the quality of the ink and the substrate are also factors, if your processes are in control, the outcome is amazing."

Customers have also noticed a difference. "Following the initial trials, we decided to use 20 micron stochastic because it eliminated any hard lines you may typically get in the normal flexo process. Everything is smoothed out and you get a higher quality image at the end of the day. If your process is under control, you can print a job every bit as good as litho or gravure can produce, and in many instances, better."

Farnell Packaging Limited, Dartmouth, Nova Scotia was the first flexible package printer to run tests with the Flexcel NX plates on polyethylene substrate for a frozen seafood package of their customer Loblaw's. Danny Christianson, vice-president of operations, says the plates provided a noticeable difference over other plates the company has used ... with more subtle gradation in the halftones. "They pulled up to colour faster and stayed clean throughout the run. When we took them off the press, they were cleaner than normal, which has an impact on makeready and production costs."

Greg Platt, president of GMF Flexo Prepress Inc. showed the printed result to Loblaw's to gauge the reaction to the package printed at Farnell in comparison to those which were being run gravure.

