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Speed delivers Flexibility

Siegwerk's innovative new electron beam curing (EB-curing) solutions for offset print purposes combine superb print quality with a high level of cost-effectiveness – especially if small print runs are involved.

There is a trend towards short print runs in many market segments. Brand owners in particular
are seeking to diversify their packaging, which is why print providers must deal with frequent print design changes and decreasing print-run sizes. "In the past a typical print run involving wraparound beverage labels, for example, ran to many thousands of square meters", Dr. Stefan Busse, Regional
Director Application Technology, Flexible Packaging EMEA at Siegwerk, explains. "Nowadays increasingly more print jobs are printed on wide-web presses using just a couple of thousand square meters." In future printers need to minimize their costs continuously to stay competitive.

Fast changeovers feasible

Offset printing with its high levels of heptachromic print reproducibility is likely to be of major interest to these print providers. They can switch quickly between different jobs and achieve very short set-up times. In combination with very low print plate costs, this makes offset printing a commercially attractive option. Several industrial-scale print trials on the Comexis CI8, a central-impression EB offset press, showed that Siegwerk's new EB technology, e.g. EB705 ink, delivers outstanding print results. That means that excellent results can be achieved at lower dot gain, lower water dosage and therefore greater permanence compared to emulsification and toning, as
well as at fast post-stoppage print plate idling. Market interest in such solutions continues to increase.

EB Flexo White sets standards

Siegwerk's white ink solutions compare very well to competing products. For example, EB 770 Flexo White delivers excellent printability and opacity values – more than 70 percent can be achieved, depending on the print plate used. This white performed well in comparable industrial tests, featuring few pinholes at supreme coating smoothness. As photoinitiators are not required in the EB curing method, migration risk is lower compared with the UV method. Siegwerk developed its new ink system in accordance with relevant product safety standards. All ingredients comply with the stringent Swiss Ordinance and in all probability they will conform to future printing ink regulations. Proprietary migration tests demonstrated this ink solution's low migration behavior, making it eminently suitable for food packaging use.

Other developments

Another topic is synthetic-film laminates, which in EB offset terms represent a real
challenge. Here too the development team is working hard on an enhancement

that has already achieved some initial success on, for example, coex. OPP and acrylate-coated PET. “Siegwerkers” are also working on single-component gold and silver special-effect inks.

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