High-precision coding for flexible packaging

Manufacturers have a constant battle to meet the high demands required for coding and marking packaging while maintaining operational costs.

Ideal for flexible packaging, thermal transfer overprinting (TTO) is a digital printing process that has largely replaced hot stamping and other more traditional analogue printing techniques, largely because of its cost reduction.

Thermal transfer overprinting works by creating high-quality and high-definition marks, codes and images through a transfer of ink onto a flexible substrate from a coated ribbon. This ribbon is covered with a wax-resin compound, or just resin, depending on the coding requirements.

TTO printheads have small resistors that swiftly and accurately heat the print area, transferring the relevant colour to the surface of the substrate. The fast on/off action is precise, ensuring that the heat causes no damage to the substrate.

"Thermal transfer printers can be used for continuous or intermittent printing, making this technology suitable for an array of challenging applications including prices, date and time codes, barcodes, QR codes, logos, and ingredient or other mandatory information," explains Pyrotec PackMark's General Manager, Brandon Pearce.

SmartDate X60 delivers ultrafast speeds

Designed for the most demanding, high-volume applications, Markem-Imaje's SmartDate X60 from Pyrotec PackMark delivers high-resolution thermal transfer printing at ultrafast speeds.

Its long-life thermal printhead can print 300dpi codes on flexible packaging film at more than 350 packs/minute.

Additional benefits of the SmartDate X60 include excellent quality printing using full resin ribbons up to 600mm/s and improved quality on difficult applications, long-life thermal printhead, and its Digital Ribbon Save Print Mode that reduces ribbon consumption by 20%.

The standard 1 100m ribbon reduces changeovers and improves cost per print, while an image adjustment feature allows images to be adjusted on the user interface without the need of a laptop.

The SmartDate X60 has power saving features that reduce power consumption by up to 50%, and an IP protection kit for the installed SmartDate X60.

Cost-effective, efficient coding

"The benefits of TTO include extremely high-resolution print quality, the ability to code fast-moving products in real time, and optimum water fastness that is ideal for industrial label printing and coding. Additionally, wax-resin compounds and full resins can be used on materials such as polypropylene to increase durability. TTO offers solvent-free printing, and its low cost of ownership thanks to optimal ribbon use make this a cost-effective and efficient option for coding on flexible

packaging," Brandon concludes.

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Pyrotec

Pyrotec is a proudly South African company with its focus aimed firmly on the future. Its five brands - Pyrotec PackMark, Pyrotec PackMedia, Pyrotec PackLink, Pyrotec PackWorx and Pyrotec Finance - make this an industry-leading company that specialises in a comprehensive range of coding and labelling equipment, on-pack informational and promotional devices, merchandising solutions, development and manufacturing of automated systems for the packaging and manufacturing industry and making finance options available to customers. Pyrotec's software offering ensures product integrity, optimises coding activities, and helps secure centralised data management systems and label tracking systems.

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