

Growth of pharmaceutical blister packs enables new flexibility in marking solutions

By Nicola Rapley



Nicola Rapley, Global **Marketing Manager for** Pharmaceutical and **Medical Devices at Videojet Technologies**, looks at the growth in blister packaging and the coding and marking opportunities it brings to manufacturers.

Blister packs have already grown to become the second leading packaging format and are currently growing at a faster pace than plastic bottles, the current number one format.

One reason for recent gains in blister pack market share is the ability to improve patient safety and security by protecting drugs from RH, O2 and other contaminants. So no wonder a recent survey of pharmaceutical industry professionals by Pharmaceutical Online showed that 44.7% of respondents always or frequently chose blister packs over bottles while only 29.1% said they never or rarely choose blister over bottles.

The trend towards blister packs has significantly impacted one of the pharmaceutical industry's main challenges, complying with Track and Trace regulations designed to ensure traceability of pharmaceutical products throughout the supply chain.

As a case in point, EU Directive 2011/62/EU requires that all pharmaceutical products distributed within the EU have a serialization number or unique code printed onto each package that allows products to be tracked throughout the supply chain and traced back to their origins.



The growth of blister packs is opening up significant opportunities in selecting coding and marking solutions that reduce the overall cost of complying with Track and Trace regulations while delivering high quality codes and requiring less maintenance.



Traditional HDPE plastic pill bottles are normally coded with continuous inkjet (CIJ) printing technology. CIJ is able to mark on a curved surface, either on the label after it is applied to the bottle or on the neck of the bottle itself.

The move to blister packs makes it ideal to use thermal inkjet (TIJ) technology with the latest inks, which typically offer a better quality, high resolution code. New solvent inks make it possible to achieve the code quality and ink adhesion required for metal foils, even when coded prior to the heat sealing process, which can cause ink to lift. TIJ is also generally considered to be cleaner and easier to maintain than CIJ, both of which are valuable features in the pharmaceutical environment.

Marking challenges are increased for blister pack applications that choose to go beyond the usual approach of marking the expiration date and batch number one time on the foil pack. In light of an ever-increasing regulatory landscape, manufacturers are anticipating what the market might demand in the future, including single-dose marking of each blister pack pocket.

Marking every pocket is becoming increasingly common for drugs that are dispensed in hospitals or skilled nursing facilities, as it makes it possible to cut or separate drugs during dispensing without losing code information. This increasingly popular practice creates a challenge in that all of the individual pockets must be marked within the cycle time of the packaging line. The latest generation of TIJ printers designed for pharmaceutical packaging applications addresses these challenges by delivering low cost of ownership, high quality and low maintenance. They also provide the speed needed to mark each pocket within a typical machine cycle.

Marking across a web to print multiple codes in a single pass can be achieved with advanced TIJ printers as they have the ability to connect up to six printheads, while printing with any four simultaneously. In addition, the Wolke m600 oem TIJ printer offers a range of features that make it especially suitable for Track and Trace applications.

These features include powerful new processing hardware, a large data buffer for serialized record management, remote commands and data handling protocols, Unicode TrueType[®] fonts for global projects and innovative asynchronous communications capabilities. Its print speed of 300 meters per minute (784 feet per minute) is suitable for most applications that require marking individual pockets.

By utilizing this state-of-the-art TIJ printing solution, pharmaceutical companies and suppliers can take full advantage of the many benefits of blister packs while reducing coding and marking costs.

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