



# Counterfeiting of medicinal products

## an increasing threat to public health and safety



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## How to protect products and brands against fraud?

The fraud of medicinal products has always been a serious problem, not only because it has been bringing losses to the pharma business, but more so because it poses a serious threat to patients' health. The scale of the problem is increasing alarmingly: according to EU statistics, 2, 711 410 fake drugs were seized by European customs in 2006, which is 384% more than in 2005. And this figure is expected to rise even further in the years to come.

To prevent further damage, the European Commission has introduced a regulation program to establish tighter and more effective control. It involves security measures which are designed to make packaging tampering and - consequently drug fraud - impossible.

In this respect, holograms, Data Matrix codes, product tracing in supply chains and mass serialization are solutions worth mentioning.

Faubel is well positioned to meet forthcoming requirements in this field: as a manufacturer of self-adhesive labels, Faubel has already completed several projects involving security seals.

Holograms are being increasingly used as reliable security marks on products or as seals applied on packages. Self-adhesive holograms have also proved their worth in labeling.

Faubel also completed the installation of a new machine capable of printing Data Matrix codes with a variable data option which we believe will be the preferred solution when it comes to security issues.

### Optimizing safety

To ensure adequate and optimal product safety, we offer a comprehensive range of security elements. However, optimal protection is mostly achieved by combining various state-of-the-art techniques such as special papers, modern printing methods, special security colors, hidden information and diffractive security features.

Diffractive product authentication features of the TRU-STSEAL® type meet high functional security requirements. Once applied on the product, on the packaging or as sealing elements, optical security features can also include



an optional self-destruct mode to defeat tampering. As attractive eye catchers, OVD's (optically variable devices) are easy to recognize and remember. The high recognition value and the striking appearance of OVD's are achieved through extreme brilliance and dynamic design elements.

### TRUSTSEAL® technology

Even though holography is already an effective counterfeit deterrent, it cannot always defeat experienced forgers. However, the patented TRUSTSEAL®-solution represents a technological advance that cannot be easily caught up. The diffractive optical structures of the extremely hard-to-copy TRUSTSEAL® are computer-generated and replicated in a sheet polymer structure. These striking structures can be easily recognized even under unfavorable lighting conditions such as twilight or scattered light. Additional security elements, such as hidden images or information that can only be read with a special reading device or the so-called 'nanotext' (a microscopic text inserted in graphic elements, which is only legible if extremely magnified) can effectively enhance the level of protection against fraud. TRUSTSEAL®-technology can also be used to implement diffractive bar codes, thereby allowing automated authenticity verification. Thanks to the microscopic structures of the bar code generated by TRUSTSEAL®-technology (in nano-range) any kind of holographic forgery would be easily detectable.



### 2D-DataMatrix Code

The 2D-DataMatrix Code is gaining momentum as a real alternative. Thanks to this new device, it is possible to store large amounts of data on minimum space and personalization is feasible, too.



2D codes can store thousands of alphanumeric signs and not just the manufacturer's name or batch numbers. Indeed, they can reveal the entire supply chain of a particular drug.

It is essential to be able to trace back a supply chain with an "easy-to-read" solution: once a counterfeit pro-

duct has entered the original supply chain, it gets "laundered" and is no longer traceable.

With 2D-DataMatrix codes, it is possible to store vital information as a kind of manufacturer's seal.

In practice, mass serialization implies that every item, e.g. a label featuring a 2D code, has an individual mark, e.g. a number stored in the code, which makes every package and product unique. This is indeed a new approach to security and product distribution.

### New machinery for printing and checking variable data

Having switched from thermal transfer to inkjet printing, Faubel is now able to print variable, customized data and codes on labels in a quicker, cleaner and safer way. Thanks



to this new technology, Faubel is now able to print variable data on the top side of booklet labels containing as many as 81 pages.

Inkjet printing is – by industrial standards – a key technology which serves our purpose, i.e. printing labels and even those with special coating on their surfaces. DataMatrix,

bar codes, graphics and texts are reproduced in a perfectly legible manner. In terms of product safety and protection against counterfeiting, Faubel's printing systems offer a variety of new options. Customization and personalization techniques will make your products safer and unmistakable.

All in all, the best protection against product counterfeiting is always to be one step ahead of potential forgers from a technological point of view.

