

Xeikon White Paper on BRAND PROTECTION PRINTING



Content

INTRODUCTION TO BRAND PROTECTION FROM MIKE FAIRLEY

HOW DRY TONER DIGITAL PRINTING CAN HELP BRAND OWNERS COUNTER...COUNTERFEITING!

AN OVERVIEW OF ANTI-COUNTERFEITING TECHNIQUES

Microtext

Guilloches

XEIKON TONER: A MULTITUDE OF BRAND PROTECTION FEATURES

Clear toner

Proprietary brand color toner

Use of taggants inside the toner

Raised images /illustrations

VARIABILIZATION

Images and illustrations

Sequential numbering reversed out of color backgrounds

Bar codes

IMAGE MANIPULATION

SECURITY SUBSTRATES

Introduction to brand protection from Mike Fairley

Brand protection challenges and solutions

While there can be little doubt that the trend towards increased global manufacturing and sourcing in recent years has had many positive impacts for both consumers and brand owners in terms of the availability and affordability of products, it has also perhaps had some unintended side effects for those same brand owners – and their international label and pack suppliers. In particular, the issues of counterfeiting, product diversion, look-a-like goods (passing-off) and even unsafe imitations.

Originally a problem related to items such as currency, passports, identity documents and payment cards, counterfeiting, diversion and passing-off have now extended into the illegal copying and selling of all kinds of branded goods – clothing, sportswear, shoes, watches, toys, computer software and games, designer goods, music, videos, DVDs, mobile phones and accessories, perfume and cosmetics, drugs, car parts, electrical goods, and much more – together with all the associated labeling and packaging of those goods so as to make the goods appear as if they were genuinely produced by the legal trade mark or brand owner. Counterfeiting of packaging and labeling has also become far easier to perpetuate in recent years. Relatively inexpensive computers, software, scanners and table-top color printers – as well as digital cameras – have made it far easier to attempt to reproduce a brand owner's original labels or packs. The bigger and better known the brand, and the more the promotion



A global problem

and marketing of it, so the possibility of it being counterfeited generally grows.

Quite simply, counterfeiters – who are often found to be organized crime gangs, terrorist groups, money launderers or drug smugglers set out to make money by illegally copying or duplicating a reputable manufacturer's products so as to fund other illegal trading activities, such as dealing in drugs, guns or pornography, but without having all the normal brand and trade mark registration procedures, without having to invest in expensive capital equipment, without participating in the extensive brand marketing and global promotion, or having to develop comprehensive brand protection procedures.

A global problem

Put all this together and it is estimated that global lost revenues through counterfeiting are now said to be close to \$1.5 billion a year – or about 7 - 8% of world trade. More than 200,000 jobs are also estimated to be lost worldwide each because of counterfeiting, and literally hundreds of people die, suffer health problems or are injured each year through ineffective or faulty counterfeited goods, such as drugs and electrical products, ineffectual automotive after-care components (fake brake linings that deteriorate rapidly, for example), through to household chemicals and cosmetics products that are harmful to the skin. Indeed the list of dangerous counterfeit goods is almost endless. Add to that the losses occur through tampering, diversion, the gray market and retail theft, and it means that brand owners have a major global problem.

While many counterfeit products only damage a person's finances by obtaining cheap or inferior goods under a brand name, there are many well-documented cases of counterfeit goods causing health and safety problems, which, in some cases, have led to serious injury and/or death – particularly of young children. Indeed, the list of counterfeited goods that

have, or may, cause health and safety issues for the, often unsuspecting, consumer can extend far beyond drugs and electrical goods to cigarettes and tobacco, spectacles and sun glasses, sun block cream, fireworks, oil heaters, some food products, household chemicals, and the like - this list can be almost endless.

At the end of the day, any highly visible, well-promoted, branded product is a possible source of attack for the counterfeiter – and it is not necessarily always very expensive or highly coveted items. It may simply be everyday quite mundane products that are being counterfeited, such as paper clips, ball point pens, disposable lighters, instant coffee, plastic garbage bags, washing powder, copier paper or blank labels.

Although the initial cost of such day-to-day products is quite small – and the return for counterfeiters is low per item – the sheer volumes that come onto the market make them legitimate targets for the counterfeiter. Enforcement expenditures and/or the legal penalties on those caught producing or selling this type of product may also be minimal, making them low risk targets for the counterfeiter. Having said that, it is generally court cases involving well-known brand name products that are often the most likely to be the ones that reach the headlines.

In looking to reduce or eliminate the problems of counterfeiting it can be worth looking at how the counterfeiter actually works to defraud manufacturers of genuine goods and deceive the purchaser or general public at large? Certainly, the

routes that these professional criminals take to make money from counterfeit goods are today quite extensive. They include counterfeiting the entire product and its packaging and labeling, or the re-use of genuine packs and labels with counterfeit products. It might be taking out-of-date or reject products and re-packaging them in fake packaging to pass them off as good, or it might be the use of unauthorized or look-alike or registered brand names used with a counterfeit product. With some products the counterfeiters also counterfeit ownership documents, guarantees and certificates of warranty to pass off fake goods as genuine.

What all this means is that genuine brand owners – and their label and pack suppliers – have a real challenge on their hands when looking to beat the well-organized counterfeiting gangs that fake their products. There is little point in adding one anti-counterfeit technology onto a pack or label as an afterthought. The counterfeiters probably already know how to counterfeit the anti-counterfeit features and can have 'genuine-looking' fake goods on sale within days.

No, the answer is for the brand owner and converter/printer to work together right from the very beginning to build one or more counterfeit deterrence, product authentication and brand protection technologies into the original design of the label or pack and, where possible, to combine a number of different anti-counterfeit technologies so as to provide the most effective overall solution. Additionally, each label or pack should ideally be unique, such as through sequential coding, numbering or unique marking – something which is now becoming easier to achieve with technologies such

as digital printing, DNA marking or laser encryption. Whatever technologies are used, they probably need to be changed on a frequent basis by batch, daily, monthly even each individual unit if digital printing is utilized, so as to keep ahead of the counterfeiters.

Design brand protection in from the beginning

While it might be said that adding brand protection technologies into or on packaging and labels is a significant additional on-cost to the brand owner and the printer and it undoubtedly can be if it is done as an afterthought and additional features are added after the pack has been designed it should be remembered that the pack or label has to be designed from the very beginning of the packaging process: the design may have background colors, tints or images on it; it will probably contain lines or logos and maybe photographs; and incorporate various sizes of text or graphics.

In simple terms, providing a solution or solutions against counterfeiting involves the implementation of various strategies and solutions designed to reduce the risks and liabilities that may arise from counterfeiting, product diversion, tampering or theft so that the brand integrity is maintained and remains both valued and valuable. Effectively, protection or authentication of a brand may involve one or more counterfeit detection technologies – security substrates, inks, backgrounds, holograms, etc – anti-tamper or tamper-evident technologies, anti-theft or electronic article surveillance tags or labels, sequential coding or numbering, etc, or various combinations of these technologies. Digital printing is adding even newer solutions to these traditional technologies. Key brand protection or authentication technologies available to the brand owner and printer today can be seen in the following diagram (page 7).

For example, if the right security design or software package is used in the design and origination of a label or pack it is

**Design brand
protection
in from the
beginning**

Working together to deter the counterfeiter

today possible to incorporate various security background designs, micro-texts, hidden images, etc, which are extremely difficult or impossible for the counterfeiter to copy or scan. In the same way, labels and packs need to be printed, which means using inks, toners and varnishes. Again, there are a range of security-type inks, varnishes and coatings that can be used during the printing process to discourage or combat counterfeiting or to provide pack authentication; inks that fluoresce or glow under certain lighting conditions; inks that change color in special light, heat or pressure situations; inks that provide extra thick, raised images; inks that can be rubbed off to reveal hidden images. There are a variety of solutions that the printer can use – even biometric and optically variable inks.

In terms of packaging materials and label substrates, then leading industry suppliers today have developed a range of possible brand protection and authentication solutions. Paper and board containing watermarks, special colored security flecks or fibers; DNA impregnated materials; holographic image films, etc, while for labels there are also a range of VOID or tamper-evident materials.

On the printing and product converting line other security related features can be incorporated into packaging and labels. Embossed images, perforated images, spot, matt or gloss varnish areas, rainbow colors using a split duct, security cuts, micro-perforating. On a label converting line it is also possible to produce security foiling solutions, on-sert holographic images, and much more.

Bar coding and numbering, date and batch coding, etc, have long been used as part of today's packaging and labeling, yet the package printer could offer much more to help protect and authenticate packs. Special codes that carry much more data than an ordinary bar code, the

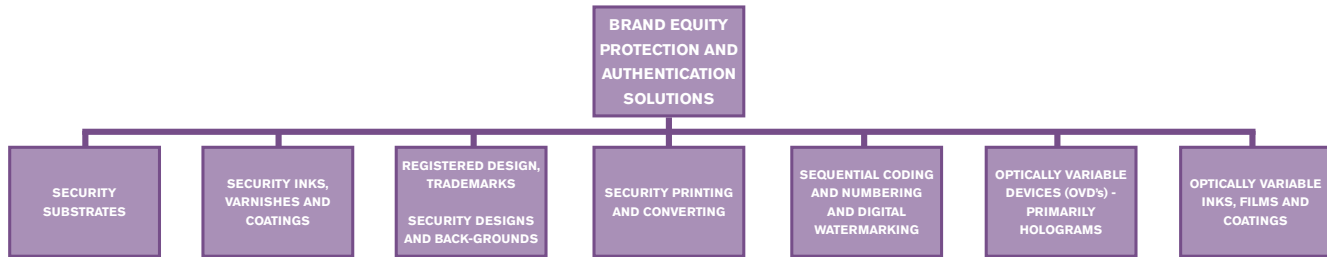
use of sequential numbers and codes, optical and magnetic encoding, invisible codes, Datamatrix and QR codes – there are many such options, including RFID.

In total, there are today many hundreds of brand protection and security solutions available to brand owners through their packaging, label and technology suppliers. Yet few printers and converters make use of even a small part of this arsenal of technology solutions. Yes, they can add cost to packaging, but if they are designed in from the very beginning and not developed as added cost extras at a later stage, the cost can at least be minimized.

Working together to deter the counterfeiter

What is needed is for the brand equity owner, the designer, the repro house, the press manufacturer, the pack and label printer, the materials suppliers, etc, to all work closely together in creating suitable packaging and labels to deter the counterfeiter. Key steps to be taken can be summarized as follows:

- Build counterfeit deterrence, product authentication and brand protection technologies into the design of the label or pack from the very beginning whenever possible.
- Examine how to best combine such technologies so as to provide the most effective overall brand protection solution.
- Try and make each individual pack or label unique. This might be through digital printing, sequential



coding, marking or numbering for example.

- Aim to keep ahead of the counterfeiter by changing the solutions used on a frequent basis – by batch, daily, monthly – even each individual unit if digital printing is utilized.

Key brand protection and authentication technologies available to brand owners and printers

The real challenges for pack and label printers are to be proactive with their customers in suggesting brand protection solutions, in developing unique security applications, in helping to track-and-trace or monitor goods in transit, in assisting with authentication devices. The earlier this is planned and implemented in the packaging and label process the better and more cost-effective the result.

Mike Fairley has been writing and talking about labels, packaging and product security technologies for over 30 years and, today, is best known as director strategic development for the Labels and Packaging Group, Tarsus plc, organizer of the worldwide Labelexpo shows.

He is the author of the 'Encyclopedia of Labels and Label Technology', contributing author to the 'Encyclopedia of Packing Technology' and co-author of the first ever 'Encyclopedia of Brand Protection and Security Printing Technology'.

Key brand protection and authentication technologies available to brand owners and printers

How dry toner digital printing can help brand owners counter... counterfeiting!

It is a fact that owners and producers of both luxury brands and highly popular goods fight a constant battle against counterfeiting. Whether it is in perfumes, pharmaceutical products, high quality brands or game cards, lottery and entry tickets... counterfeiting has become a billion dollar/euro business.

Most products in our everyday professional and personal life come in some form of packaging. How else would one present, transport, protect, preserve or promote the products from the production site all the way to the store shelf and into the customers' hands? For very many products it is the only medium to inform, communicate... and sell. Without print, packages would be nameless containers for unknown contents of unspecific characteristics and unreliable quality. Print is an absolute necessity for distribution, conveying information and tracing quality and reliability. Print, if well used, can also be a strong weapon against counterfeiting, a major headache for brand owners.

Brand owners not only use a range of overt (visible) and covert (hidden) techniques to track and trace their products from the production site onwards. They also do

whatever they can to reduce liabilities, prevent severe harm to their brand reputation, and ... stop losing millions in unsold products. They absolutely need integrated solutions designed to protect against counterfeiting, fraudulent import (gray market), product-tampering, etc.

This Xeikon White Paper briefly describes how the use of several anti-counterfeiting techniques can be combined with digital printing. Main reason for doing so is the low cost, since most of these techniques are part of the production printing process, without requiring too many extra investments or special expensive fraud detection systems. And by combining several protection features, counterfeiting will face ever higher technical thresholds and become more expensive... hence be less prone to happen.

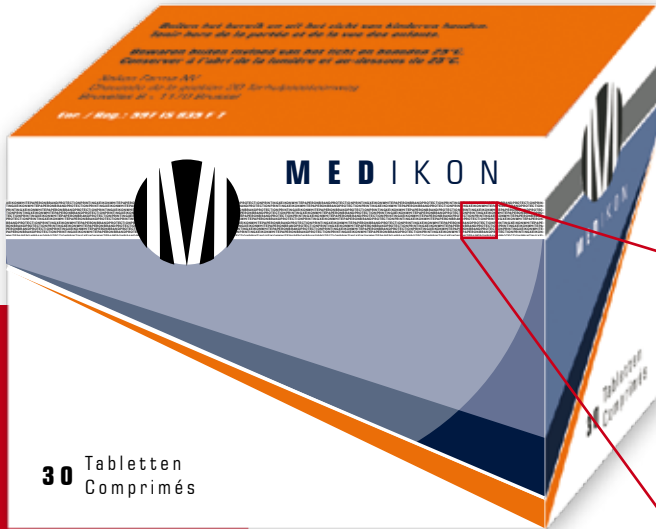
“Brand owners and companies all over the world use these characteristics - often in a mixed combination - to fight counterfeiting... with expert printing!”

Take the Xeikon print technology itself...

The Xeikon digital printing presses typically are characterized by:

- One-Pass printing
- Use of up to 5 print station (colors)
- Perfect print registration
- Use of advanced, specialized dry toner
- Handling of a wide range of non-pretreated substrates
- High quality printing in 1200 dpi resolution (4 bit per spot)
- Reliable conversion of data into printable files





An overview of anti-counterfeiting techniques

MICROTEXT

Microtext is standard text or coding but reduced in size so it becomes invisible to the naked eye.

This type of text is so small (down to 1point or 0,3528mm) that it is very hard to copy, duplicate or reproduce the specific hidden messages or codes introduced into the layout. The invisibility to the naked eye also makes it possible to introduce microtext in line-art (illustrations or even text) and other layout elements. In this way these covert messages carry the potential to authenticate the document or packaging by simple visual enlargement of the element.

The example on the left shows how microtext is a covert part of the layout. (Or go to [HYPERLINK "http://www.xeikon.com/microtext"](http://www.xeikon.com/microtext) www.xeikon.com/microtext to get your sample of the entire Bible printed in microtext on ONE 50cmx70cm page.)

It is the 1200dpi resolution (4bit per spot) of the Xeikon press that allows successful use of microtext. 1200dpi means that the LED array used in the Xeikon presses holds 1200 LEDs over a distance of one inch or 2,54cm, resulting in toner dots of 21 micron.(The human eye cannot discriminate dots smaller than 30 micron!) Hence the sharpness of text and lines.

Conserver à l'abri de la lumière et au-dessous de 25°C.

Xeikon Farma NV
Chaussée de la gestion 20 Terhulpssteenweg
Bruxelles B - 1170 Brussel

Enr. / Reg.: 597 IS 835 F 7

M E D I K O N

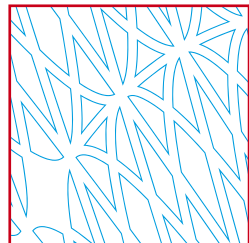


30 Tabletten
Comprimés

Formula:
watervijf citroenzuur — natriumbicarbonaat
watervijf natriumcarbonaat — Sorbitol — Natriumdocusaat
Povidone — Natriumsaccharine — Natriumbenzoaat.



0 123456 789012



30 Tabletten
Comprimés

M E D I K O N



30 Tabletten
Comprimés

M E D I K O N



30 Tabletten
Comprimés

M E D I K O N



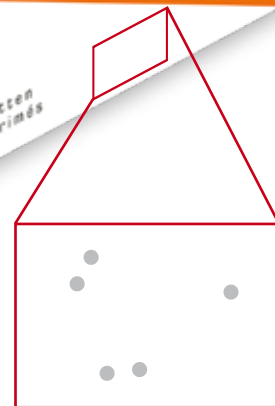
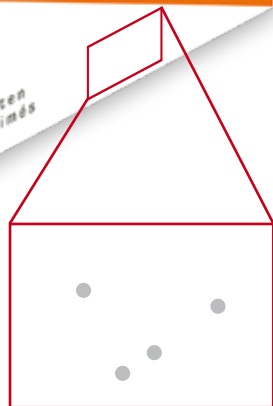
GUILLOCHES

Guilloches are very special line drawing designs in highly irregular and complex patterns to protect against counterfeiting and fraud of all kinds of documents. If they are printed in a spot color, color copiers for instance have to reproduce them in CMYK which almost immediately introduces easy to spot visible inaccuracies.

The example on the left shows the use of guilloches in the background of a package design.

Again it is the 1200 dpi resolution that makes the Xeikon presses perfectly capable of using this anti-counterfeiting technique.





IMAGES AND ILLUSTRATIONS

Varying images and/or illustrations throughout the production run is another example of variabilization. Think of varying different pictures of people in an identity card or drivers license.

A keen application is the use of scattered dots graphics or cryptoglyphs as shown on the left. A series of printed dots is randomly placed on the package forming a shape that can only be recognized or authenticated by using a digital scanner and specific software.

A cryptoglyph is a field of micro-dots of about 20 micron, invisible to the naked eye. The designer incorporates the cryptoglyph pattern in to his artwork file. The micro-dots are overlaid on the package design with light toner which makes them seamlessly integrate into the package

design. When the final package is scanned using a flatbed scanner, digital camera, or cell phone camera, the image is sent for processing to servers where the verification software is running.

It is the 1200 dpi resolution of the Xeikon presses that results in toner dots of 21 micron. Perfectly fit for cryptoglyphs!



53905-123

Conserver à l'abri de la lumière et au-dessous de 25°C.

Xeikon Farma NV
Chaussée de la gestion 20 Terhulpssesteenweg
Bruxelles B - 1170 Brussel

Enr. / Reg.: 597 IS 835 F 7

M E D I K O N



30 Tabletten
Comprimés

Formula:

watervrij citroenzuur — natriumbicarbonaat
watervrij natriumcarbonaat — Sorbitol — Natriumdocusaat
Povidone — Natriumsaccharine — Natriumbenzoaat.



0 123456 789012



30 Tabletten
Comprimés

M E D I K O N



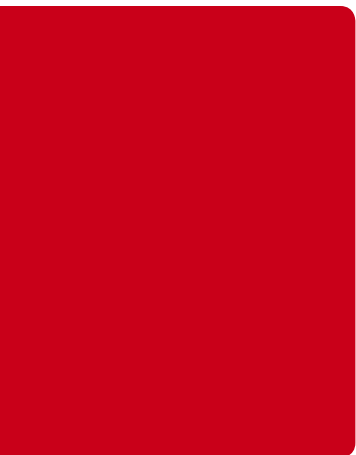
30 Tabletten
Comprimés

M E D I K O N



30 Tabletten
Comprimés

M E D I K O N



RAISED IMAGES/ILLUSTRATIONS

The feel of printed documents can also be introduced as a security and brand protection element. Printing specific images or illustrations in black with 4 toners on top of each other, inside a black field in one black layer, creates a distinct tactile difference. The easy to feel height difference can therefore be used to authenticate the document. This technique is also used in printing money for instance.

The black logo illustration inside a black field on the left allows you to feel the difference.

The Xeikon digital presses offer the required combination of resolution, precise pixel placement and toner handling to realize these security elements in a reliable way.



BLEACH



PRINTED FIBRE



SECURITY SUBSTRATES

Fluorescent and microprinted fibres, thermo- and UV-sensitive substrates, reactive anti-fraud chemicals , generic or customized watermarks, embedded threads, holograms or foils, a series of chemical and physical taggants...a whole range of different security elements linked to the substrate that can be added to your label or package. And these substrates, like the ones from sappi (www.sappi-securitypapers.com), can be perfectly printed on Xeikon presses, with room to add further security elements.

Sappi (www.sappi.com), with their security papers & packaging products, is one of our members in the Aura Partner Network, a robust and fully-encompassing partner-network that brings together information on all Xeikon partners and their integrated solutions in one central location as a professional networking source. Thorough testing of machine/toner/substrate/ software combinations is the basis of successful cooperation to supply printers exactly with the product solutions they require.

This part of the Xeikon brand protection booklet is printed on Sappi 95g/m² security substrate, with no optical brighteners.



Xeikon toner: a multitude of brand protection features

CLEAR TONER

Some Xeikon customers use the Xeikon clear toner to add invisible text, codes or shapes to printed results. These are hardly visible unless under a UV light source or a black light emitting in the 350nm-385nm light range, when they will turn blue. The use of clear toner is not easy to copy at all! For that one needs to use substrate that holds no optical brighteners so the effect of the clear toner under UV light is obvious. Holding a print sample under a light source is an uncomplicated, low cost way of immediately checking the authenticity of labeled or packaged goods. Use UV light to see the Xeikon logo as well as specific image parts light up on the left page.

Xeikon developed its clear toner on specific customer requests. This part of the Xeikon brand protection booklet is printed on Sappi 95g/m² security substrate with no optical brighteners.

Xeikon toner lends itself very well to different types of brand protection applications. The toner can be treated in a specific art and manner for specific usage.

Take MICR (Magnetic Ink Character Recognition), a technique with which characters are printed in special typefaces with a magnetic ink or, in Xeikon's case, magnetic toner. The MICR reading head translates the unique magnetic waveform into readable text. Not protection but very fast and reliable reading of the text is the goal, even if signatures, stamps or dirt covers it. Think of bank cheques. This is only one example of very specific toner developed on demand by Xeikon.

3306-123

Conserver à l'abri de la lumière et au-dessous de 25°C.

Xeikon Farma NV
Chaussée de la gestion 20 Terhulpsesteeweg
Bruxelles B - 1170 Brussel

Enr. / Reg.: 597 IS 835 F 7

M E D I K O N

30 Tabletten
Comprimés

Formula:
waterrijv citroenzuur — natriumbicarbonaat
waterrijv natriumcarbonaat — Sorbitol — Natriumdocusaat
Povidone — Natriumsaccharine — Natriumbenzoaat.



0 123456 789012



30 Tabletten
Comprimés

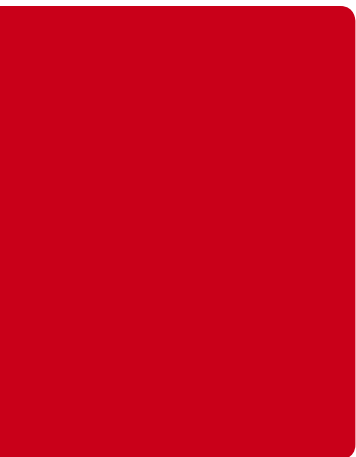
30 Tabletten
Comprimés

30 Tabletten
Comprimés

M E D I K O N

M E D I K O N

M E D I K O N



PROPRIETARY BRAND COLOR TONER

Certain brand owners may want to have Xeikon develop their own proprietary brand color toner, again as a measure to, amongst others, make unlawful reproduction even harder.

By lack of the specific PMS color toner, counterfeiters will try to print the spot color with CMYK toners or inks. The visible screening of that combination—due to the overlay of different color screens—already shows counterfeiting. Printing items like guilloches in the specific fifth PMS color also make fraude a lot more difficult.

The orange spot color used in the box on the left clearly differs from the orange CMYK representation. The naked eye and/or a simple loupe will immediately show the

difference. Adding specific orange, green or blue spot color toners to the standard CMYK selection not only creates a wider color gamut, but is also a potential security and brand protection element.





USE OF TAGGANTS INSIDE THE TONER

Another approach is at the high level of security efforts. It consists of adding one or more taggants or chemical or physical markers to materials like the substrate or the toner itself, to allow various forms of verification. Apart from banknotes and value papers, taggants are already used for tobacco products, alcohol, pharmaceutical, and even specific Fast Moving Consumer goods.

Taggants bring truly unique benefits. They are invisible to the naked eye. They are permanently present and not removable from the toner or the substrate used. They are very difficult to reverse engineer. You can only detect them with special equipment. The taggant reader on the left is developed by Brandwatch Technologies.

(Image use courtesy of Brandwatch, www.brandwatchtech.com)





Variabilization

SEQUENTIAL NUMBERING REVERSED OUT OF COLOR BACKGROUNDS

For product tracking, inventory control and enhanced authentication, brand owners often use sequential numbering. As said already: one can use a standard or a single specific toner to represent the numbering, but it becomes all the more difficult when multiple colors are used in such a way that every printed copy changes in all of these colors.

The application on the left shows this variabilization with data reversed out of the 4 CMYK colors, strongly enhancing the threshold to counterfeit. Imagine adding the fifth color inside the Xeikon press to enhance the production threshold even further!

The well-known Xeikon technology advantages such as resolution, registration, precise pixel placement, and professional toner handling, all come in to play here.

Variable data printing will continue to be one of the most important Unique Selling Propositions for digital presses. Using specific, personalized and relevant information creates increased appeal to and intimacy with the end user, reflected in higher response, loyalty and sales rates. It is of course also much more difficult to counterfeit.

Variabilization today is no longer just adding a personal name and address. Virtually any element from the printed piece can vary. Serialized data and sequential numbering is a widely used technique, for both tracking and authentication purposes. Here are three samples of variabilization, enhanced with other protection elements.



BAR CODES

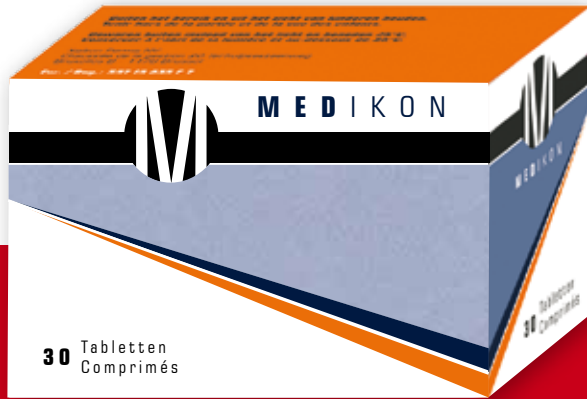
Bar codes, typically 2D barcodes and QR codes, are used for all types of authentication and track & trace applications. The use of bar codes is a standard procedure in packaging in almost any industry, for product authentication.

More and more, protection focused brand owners combine the above elements. In this way, variabilization increases the difficulty to counterfeit and supplies specific tools to control further steps in the production and coding processes.

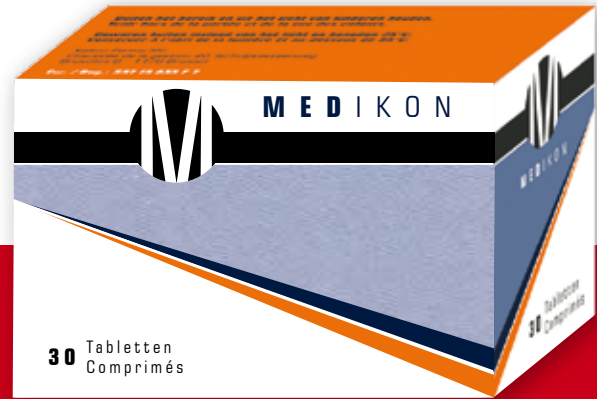
Xeikon digital presses provide the exact level of dimensional accuracy and consistency needed to print professional bar codes.

The high 1200dpi resolution with 4bit depth per spot and the built-in sensor based registration tools comes in handy to reach those quality levels. The Xeikon X-800 digital front-end software excels at using all of these brand protection elements in a thorough, reliable, and professional way.





HSI-1



HSI-2

Please use one of the keys inside the plastic key holder pocket on page 35.

HIDDEN SCREENING IMAGES

Hiding covert images into the artwork of the protected item is what this is all about. These hidden images only become visible by using special verification keys, typically comprising a film or plastic lens. The keys can be image specific or client specific.

The verification keys are typically only available for inspectors or trained staff.

As part of the artwork creation, the use of hidden images does not influence the cost of production. Several images can be combined into the same or into different parts of the design. They can be revealed by either the same or different keys.

Typical use is in tickets, packages, wine and luxury product labels, clothes and textile labels, hang tags.

In the example shown on the left, the Xeikon and BSS logos will appear when applying the lens/key, enclosed in the back cover of this booklet. Just do the verification yourself!

Xeikon works closely with companies like BSS GmbH in Germany ([HYPERLINK "http://www.brand-security.de"](http://www.brand-security.de) www.brand-security.de) to refine the use of hidden screen images. Its high quality 1200dpi- 4bit/spot resolution is indispensable to reach professional results.



Conserver à l'abri de la lumière et au-dessous de 25°C.

Xeikon Farma NV
Chaussée de la gestion 20 Terhulpssteenweg
Bruxelles B - 1170 Brussel

Enr. / Reg.: 597 IS 835 F 7

M E D I K O N

60 Tabletten
Comprimés

Formula:

watervrij citroenzuur — natriumbicarbonaat
watervrij natriumcarbonaat — Sorbitol — Natriumdocusaat
Povidone — Natriumsaccharine — Natriumbenzoaat.



0 123456 789012



60 Tabletten
Comprimés

60 Tabletten
Comprimés

60 Tabletten
Comprimés

M E D I K O N

M E D I K O N

M E D I K O N



ANTI COPY PRINTING

Counterfeiters will try to copy artwork or printed items, sometimes using a copying device. Anti-counterfeiting efforts can include the use of specific software on image parts inside the package design.

This results in warning messages appearing automatically in the treated areas when one tries to copy the image. Try it out for yourself: put this page on your copying machine or scanner and you will get a result that looks like the image on the right. Again a low cost way of fraude prevention, as part of the prepress activities before the actual printing process starts.

The software used to achieve this effect on this page is from our partner BSS GmbH in Germany (HYPERLINK "<http://www.brand-security.de>" www.brand-security.de).





Please use one of the keys inside this plastic key holder pocket.

Put one of the keys flat on top of the printed image on page 30 and rotate it on its axis. You will see the hidden images appear to authenticate the document.

Keys courtesy of Brand Security Systems GmbH in Germany (www.brand-security.de).



© 2011 Xeikon International BV. All rights reserved.
All trademarks are property of their respective owners.
No parts of this brochure may be reproduced, copied,
adapted, translated or transmitted in any form or by any
means, without prior written permission from Xeikon.
The material in this brochure is for informational purposes
only and is subject to change without prior notice.
No responsibility or liability is assumed by Xeikon for
any errors, which may appear in this brochure.

WhitePaper_BrandProtection_IND_EN_sep2011

Xeikon International BV
T. +32 (0)3 443 13 11 - F. +32 (0)3 443 13 09
www.xeikon.com - info@xeikon.com



Printed on Xeikon equipment