



LEARN.  
CONNECT.  
DISCOVER.

INSPIRING DIGITAL PRINTING APPLICATIONS

# Learn. Connect. Discover.

*—Xeikon is a pioneer and leading provider of digital printing solutions, supplying business professionals around the world with their ideal technology. We design, build and deliver complete solutions for labels & packaging, document & commercial and folding carton.*

With Xeikon Café we have found our way to connect with customers, partners, packaging converters and print service providers. Our intent is to provide an informal knowledge exchange platform covering the different aspects of digital print production while cutting through the information overload. Through demonstrations, presentations, workshops and discussions, participants receive first-hand, actionable information and advice on industry innovations and trends.

Every chapter in our Xeikon Café journey results in new applications for digital production. This way we have probably built the biggest application database in the digital printing industry and we open to share it. This guide is a snapshot of the highlight applications of this Xeikon Café. By scanning the QR codes on the different pages you can dive into more detail about a specific one.

The complete overview can be found on [www.xeikoncafe.com](http://www.xeikoncafe.com).

If you are looking for more information or you want to submit your application to put in our database, do let us know! We're happy to inform and help you.

Team Xeikon

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# HEAT TRANSFER LABELLING INDUSTRIAL PRODUCTS



A decoration technology which enables decorating after the injection and/or blow moulding process. This allows for later stage decoration compared to injection and blow mould labeling but a similar look and feel, becoming an integral part of the container. Current technologies provide a solution for small plastic container up to large size containers. The simplicity of the process enables printers but also moulders to embrace this technology and bring this in-house, gaining on time to market.

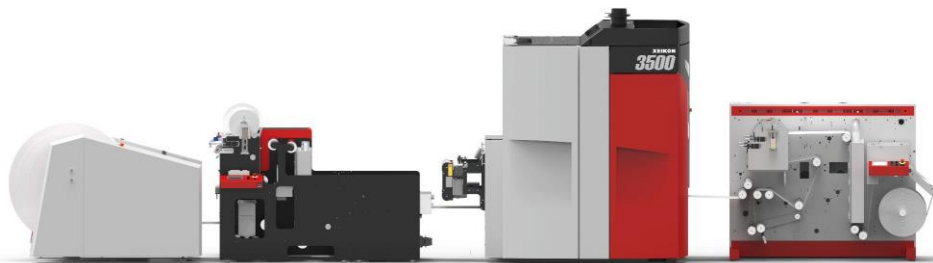


## What is the value of digital printing?

The conventional process for industrial products is conventional heat transfer labels produced on either gravure, flexo or offset rotary presses. With the corresponding dimension of these decorations start-up costs are relative high while run lengths are declining. On top of that these processes need to be very tightly controlled to guarantee the proper functioning of the labels in the decoration process. Dry toner digital technology solves this issue: (1) the dry toner process ensures a chemical stable end-result hence consistent functioning on the decorator (2) no start-up costs (3) gravure image quality (4) ability to provide faster turnaround time. This all helps build new revenue streams with higher profit margins, even on very small runs of different quantities of different sized labels. Furthermore, digital printing with Xeikon offers:

- an alternative to traditional gravure, offset or flexo printing
- a reliable print process: consistent color reproduction thanks to the closed eco system

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Job Optimizer, Brand Protection Features, Separator Sheets, Color Magic	Bomarko HTL150	ICE toner CMYK + clear Primer HTL011331 Adhesive HTL001236	Xeikon Ucoat Tronics Lake Image



## PARTNERS



# IN-MOULD LABELLING

## LARGE FORMAT LABELS



*In-mould labelling is the use of plastic labels during the manufacturing of containers by blow moulding (BML), injection moulding (IML), or thermoforming processes. The label serves as the integral part of the final product, which is delivered as pre-decorated item to the packaging filling line. In-mould labels are applied at high temperature with longer cycle times which comes with its challenges. Mainly BoPP films are being used which are printed, varnished and converted into a single label. These stacks are then used during the moulding process. The fact that the label is moulded inside the container provides a no label look, ensures brand integrity on a higher level and reduces complexity in the packaging line (no decoration process).*



### What is the value of digital printing?

In-mould labelling is a decoration technique with relatively high start-up costs and used early in the supply chain. Digital printing allows customer sampling for test marketing, resulting in higher success rates when the products hit the consumer market. In addition, digital production offers a lower cost solution for the large sized labels which have higher start-up printing cost. Furthermore, digital printing with Xeikon offers:

- undistinguishable quality from your flexo production and as such provide a complement to flexo
- a cross-over with offset of at least 2,100 linear meter (6,889 linear ft)
- exceptional label sizes thanks to Xeikon's full-rotary printing technology
- no start-up costs
- no job changeover costs on the same print media
- ability to print unlimited number versions in one go

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800 Separator Sheets	Treofan EUH70	ICE toner CMYK + Clear Primer Michelman Digiprime 4453 Varnish Actega Aquaprint 150	Xeikon Ucoat Lake Image



### PARTNERS



# BLOW-MOULD LABELLING INDUSTRIAL CONTAINERS



*In-mould labelling is the use of plastic labels during the manufacturing of containers by blow moulding (BML), injection moulding (IML), or thermoforming processes. The label serves as the integral part of the final product, which is delivered as pre-decorated item to the packaging filling line. In-mould labels are applied at high temperature with longer cycle times which comes with its challenges. Mainly BoPP films are being used which are printed, varnished and converted into a single label. These stacks are then used during the moulding process. The fact that the label is moulded inside the container provides a no label look, ensures brand integrity on a higher level and reduces complexity in the packaging line (no decoration process).*



## What is the value of digital printing?

Certain markets such as oils, household, chemicals, etc. undergo a larger diversification of the product range. This results in shorter run lengths which can be more economically produced when using digital printing. Furthermore, digital printing with Xeikon offers:

- undistinguishable quality from your flexo or offset production and as such the perfect complement to flexo or offset
- a cross-over with offset of at least 2,100 line meter (6,889 linear ft) or >70,000 labels
- no start-up costs
- no job changeover costs on the same print media
- ability to print unlimited number versions in one go

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Separator Labels, Job Optimizer	Yupo AISE 105	ICE toner CMYK Primer Michelman Digiprime 4453 Varnish Actega Aquaprint 150	Xeikon Ucoat Lake Image



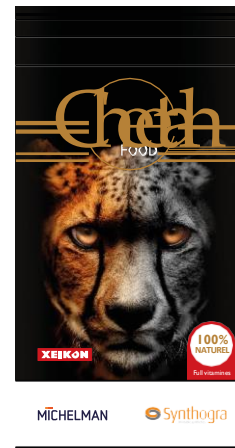
## PARTNERS



# FLEXIBLE PACKAGING POUCHES



A pouch is essentially a laminated bag which is made from several layers (plastic film, aluminum foil, and other materials). Marketers see a lot of value in this kind of packaging for a variety of reasons such as product presentation and functionality to the consumer but also sustainability: a pouch has a so-called “product-to-package” ratio of 35:1 which essentially means it can carry up to 35 times its own weight, resulting in less energy consumption to produce and transport. This is why a lot of brands are transitioning from rigid types of packaging to more flexible versions. Pouches can have a variety of different shapes depending on the needed size, end-use application and functionality. They are reasonable complex to manufacture as a pouch is a multi-layer product. Stand-up pouches are frequently called “bottom gusset” pouches. They can stand after being filled with a certain product. They are the perfect solution for “light weight” end-use applications and by “standing” they have a strong on-the-shelf presence.



## What is the value of digital printing?

More SKUs, shorter lead-times and the rising popularity of this packaging product drive the need for digital production. It allows for JIT production, versioning and quick language adaptations. Furthermore, digital printing with Xeikon offers:

- High print quality
- a cross-over with flexo of at least 4,000 linear meter
- no start-up costs
- no job changeover costs on the same print media
- ability to print unlimited number versions (SKUs) in one go
- ability to print single and full color variable information, integrated in the pouch

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Variable Data, Separator Labels	D&K ADB 1/2	Cheetah toner CMYK+White Coating Michelman Digiprime 4453	Xeikon Web Varnishing Module, Xeikon Print Medium Rewinder



## PARTNERS



# WRAP AROUND LABELS

## SOFT DRINK LABELS



Wraparound labelling is a decoration technique whereby labels are applied 360° around a bottle, used mostly for water or soft drinks. Mainly unsupported BoPP film is used to ensure the labels withstand the condense that might arise when the bottle is taken out of the fridge. BoPP also guarantees a good recycling process (bottle is PET, label BoPP) and allows to use transparent, white and metalized materials - the smooth surface of the BoPP ensures an impeccable quality. Wraparound labels are applied during the bottling process in a specific applicator.

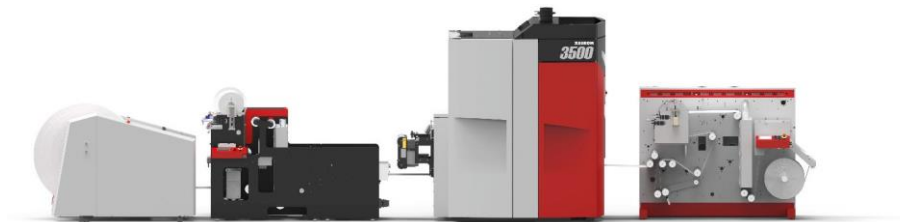


### What is the value of digital printing?

Digital printing enables shorter runs, faster turnaround times, customization and better economics to optimize your production. More demanding customers, shorter runs, multiple variety, full color graphics - the list of questions that challenge how you used to do business goes on and on. No one wants to compromise quality and you want to keep your business profitable and future-proof. Furthermore, digital printing with Xeikon offers:

- undistinguishable quality from your flexo production and as such provide a complement to flexo
- a cross-over with offset of at least 2,100 line meter (6,889 linear ft) or >70,000 labels
- no start-up costs
- no job changeover costs on the same print media
- ability to print unlimited number versions in one go

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Job Optimizer, Varilane, Separator Labels	Treofan EUH70	ICE toner CMYK Primer Michelman Digiprime 4453 Varnish Actega Aquaprint 150	Xeikon Ucoat Lake Image



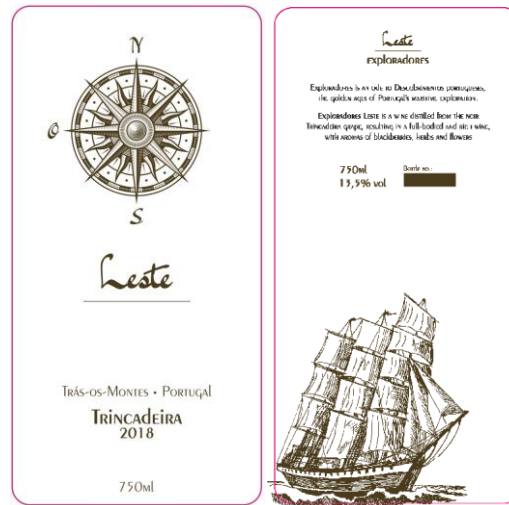
### PARTNERS



# SELF-ADHESIVE LABELLING EMBOSSSED WINE LABELS



Wine labels are mainly using uncoated, natural papers enriched with color print and embellishments. The producers have such pride in their products that they only want to have the best to decorate their hard work captured in the bottle. Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer of adhesive and the facestock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. A web-fed process brings a high label application speed on the packaging line and allows for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/container just by taking another glue.



## What is the value of digital printing?

There are various reasons why wine labels would be printed digitally. Firstly, front labels hold the year of production and come in different quantities per year as the harvest varies per year. Secondly, back labels need to carry the information of the importing company which could be more than one. This all leads to shorter runs of different kind of labels which are most cost-efficiently produced digital. Furthermore a growing trend of local vineyards and much more diversity in the wine market creates the need for shorter runs. Furthermore, digital printing with Xeikon offers:

- the highest quality with the 1200 dpi print resolution
- cost efficient run-lengths of 4,000 line meter (13,000 linear ft)
- no start-up costs
- instant job change-over without additional substrate waste
- ability to automate the manufacturing process (order intake, job preparation, ...)

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Vectorizer, Separator Labels, Labeltraxx	Avery Dennison GRAPE TOUCH FSC S2047N-BG45WHIMP	ICE toner	GM Spot varnish, foil, diecut, slitting



## PARTNERS

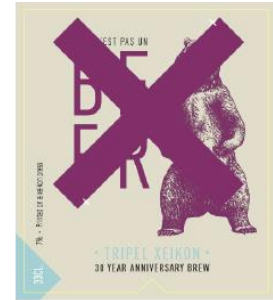




# SELF-ADHESIVE LABELLING CRAFT BEER LABELS



*This type of Craft beer labels prefer the use of paper based label substrate to mimic the wet-glue labels they replace. By going from wet-glue to self-adhesive you achieve first higher reliability in the label application process and second reduce change over times and enable new range of embellishments. Certain countries require the labels to be washed off during the recycling process. Specific glues have been developed by self-adhesive label substrate manufacturers. Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer or adhesive and the facestock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. A web-fed process brings a high label application speed on the packaging line and allows for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/container just by taking another glue.*



## What is the value of digital printing?

The growing trend of craft beers and more diversity in the beer market create a need for shorter runs. There are a large number of microbreweries across the globe which are bringing ever more specialized and seasonal beers to market. Digital printing offers them the ability to produce these shorter run lengths at an affordable price, and without compromising on their existing brand colors or quality since they need labels with eye-catching colors that stand out on the shelf. With digital, random variable image printing of multi-designs for premium labels, all in one run, is made possible. Furthermore, digital printing with Xeikon offers:

- a range of production solution with different capacities
- the ability to integrate the digital press in an existing workflow, reducing administration or even overhead cost
- higher cost efficiencies with run lengths of up to 4,000 line meter (13,000 linear ft)
- change SKU during printing without any additional printing cost

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Job optimizer, Labeltraxx	ARTISAN FSC S2030-BG45WH IMP	ICE toner CMYK + Clear	Xeikon Print Medium Rewinder



## PARTNERS



# SELF-ADHESIVE LABELLING

## PREMIUM BEER LABELS



This type of Premium beer labels prefer the use of clear-on-clear label to achieve the 'no-label look' on the glass bottles. Certain countries require the labels to be washed off during the recycling process. Specific glues have been developed by self-adhesive label substrate manufacturers. Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer of adhesive and the facestock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. A web-fed process brings a high label application speed on the packaging line and allows for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/container just by taking another glue.



### What is the value of digital printing?

There is growing trend of Premium beers diversifying their product or just their packaging (personal) to the consumers in response to the growing craft beer labels. The premium beers are not necessarily able to experiment as much as the small local breweries but through packaging they can still stand out. Not everybody is able to handle the clear-on-clear label materials on the applicators, which is a sought after appearance by the younger generation and used a lot by brand owners. Digital printing offers them the ability to produce shorter run lengths at an affordable price, and without compromising on their existing brand colors or quality since they need labels with eye-catching colors that stand out on the shelf. With digital, random variable image printing of multi-designs for premium labels, all in one run, is made possible. Furthermore, digital printing with Xeikon offers:

- application tuned digital printing technology and related consumables
- higher cost efficiencies with run lengths of up to 4,000 line meter (13,000 linear ft)
- design changeovers without extra costs reduction of start costs and waste drastically
- the ability to print the volume required by the market rather than the volume required to get the best label

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, OXO Job Optimizer	Avery Dennison PP50 TOP SIL-VER- S692N-BG40WH	PantherCure CMYK +white	Xeikon D-Coat



### PARTNERS



# SELF-ADHESIVE LABELLING HEALTH & BEAUTY LABELS



Health & beauty labels can of course commonly be found in humid environments, for example in bathrooms. As such these labels need to be water resistant. In addition, they are often applied on squeezable containers (like a shampoo bottle) which creates an additional requirement of deformability. Therefore either co-extruded or PE facestocks are used for this type of labels. Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer of adhesive and the facestock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. A web-fed process brings a high label application speed on the packaging line and allows for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/container just by taking another glue.



## What is the value of digital printing?

The number of different products and versions in health & beauty and toiletries are rising continuously. On top of that, retailers are sub-segmenting and pushing their own private (retail) brands in different ranges on the market (economical, high-end, family, etc.). As the consumer base in most economies is increasing, the run lengths per SKU is declining which creates the need to look for other printing methods that are more cost effective, such as digital. Furthermore, digital printing with Xeikon offers:

- a choice in print technology Panther (UVIJ) for tactile, glossy look and feel or Cheetah (Dry toner) for offset look and feel
- high opaque white on both Panther and Cheetah presses
- cost efficient run lengths up to 4,000 line meter (13,000 linear ft)

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Color Magic, Job optimizer, Xeikon Color Control	UPM PE Clear FTC 85 RP37 HD70	PantherCure CMYK +white	Xeikon D-Coat



## PARTNERS



# SELF-ADHESIVE LABELLING

## HIGH-QUALITY SOAP LABELS

Health & beauty labels are often to be found in humid environments, eg bathrooms. As such these labels need to be water resistant. In addition, they are often applied on squeezable containers (like a shampoo bottle) which creates an additional requirement of deformability and of course, the print on the label has to remain readable. As substrates, typically co-extruded or PE facestocks are used for this type of labels. Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer or adhesive and the facestock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. A web-fed process brings a high label application speed on the packaging line and allows for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/container just by taking another glue.



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- high opaque white on both Panther and Cheetah presses
- cost efficient run lengths up to 4,000 line meter (13,000 linear ft)

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Xeikon Color Control, CERM	Avery Dennison MC70 RECY- CLED FSC-S2000NG-BG30BR FSC	Cheetah toner CMYK	ABG spot varnish, hotfoil, diecut, slitting



### PARTNERS



# SELF-ADHESIVE LABELLING

## DURABLE PEEL & REVEAL



Peel & Reveal labels are a multilayered construction which can provide space for communication information on the different layers. The construction is mainly based upon BoPP based facestock which is either printed double side or where we print on top of the glue layer. This solution has been created to communicate large sum of information on a limited space and is used a lot in the chemical industry. Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer or adhesive and the facestock material. The laminate is printed, slit in the respective lanes corresponding with the dimension of the label. From the label(s) which will be placed on the base label (1) the glassine will be removed (2) through a cross-over bar placed on top of the base label and than die cut.



### What is the value of digital printing?

Ever changing legislation makes it a challenge for brand owners to add all the required information on the limited space available on a product container. A Peel & Reveal label addresses this need by creating several print areas in a layered structure. As such the label still maintains its esthetic appearance and holds all required info. Digital printing allows for last minute changes when needed, avoiding obsolete stocks and associated costs. Furthermore, digital printing with Xeikon offers:

- the ability to print multi-variants within the same dimensions drastically reducing start-up cost compared to conventional printing
- fast turnaround time
- reduction of complexity in production handling the data
- the possibility to add easily single or full color variable data with no extra cost

Workflow	Print Media	Consumables & tools	Equipment
XeikonX-800	UPM PP White FTC 60 / RP37 / HD70	Cheetah toner	Grafotronic Registered lamination, varnish, diecut, slitting



### PARTNERS



# SELF-ADHESIVE LABELLING INDUSTRIAL CHEMICAL LABELS



Chemical products (e.g. electronic cigarettes, chemicals, household chemicals, ...) due to growing legislation need more printable area on which the required info can be communicated. Chemical labels are operating in harsh environments which strongly increases expectations on the inks/toner being resistant against these chemicals.

Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer or adhesive and the facestock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. This web-fed decoration process allows for high labelling speeds on the packaging line, no label look feeling and enable the opportunity for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/container.



## What is the value of digital printing?

Every changing legislation makes it a challenge for brand owners to have a large stock of labels as they can become easily obsolete. This makes them switch to print-on-demand which allows for last minute changes when this would be needed while avoiding obsolete stock and waste costs. Newer emerging markets (for example electronic cigarettes) require also more flexibility in delivery pattern, varying quantities, etc.

Furthermore, digital printing with Xeikon offers:

- undistinguishable quality from your flexo production and as such provide a complement to flexo
- a cross-over with flexo of at least 4,000 line meter (13,000 linear ft) or >70,000 labels
- no start-up costs
- no job changeover costs on the same print media
- ability to print unlimited number versions (SKUs) in one go
- ability to print single and full color variable information, integrated in the label

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Variable Data, Separator Labels	Avery Dennison TRANSFER PET WH TOP - S8002-BG42WH	PantherCure CMYK	CARTES Laser Diecut



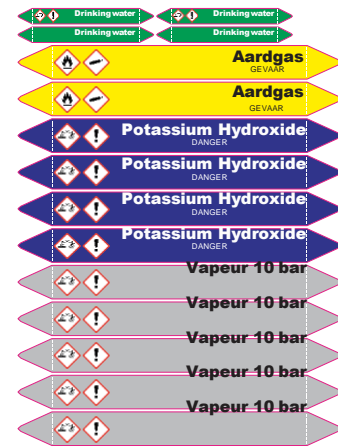
## PARTNERS



# SELF-ADHESIVE LABELLING DURABLE PIPE MARKING



*In a (chemical) manufacturing plant unmarked pipes are dangerous to both life and property. Numerous injuries have occurred due to ignorance of pipe contents, especially when external interventions are required in case of emergencies. Legislation such as ANSI/ASME try to maintain standards for this cross-industry. Many of these markings are unique to a certain production plant which makes this an interesting application for digital production. Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer of adhesive and the face-stock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. A web-fed process brings a high label application speed on the packaging line and allows for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/container just by taking another glue.*

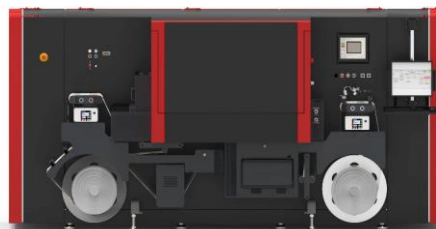


## What is the value of digital printing?

Ever changing legislation makes it a challenge for specialized label converters to maintain a large stock of labels as they can quickly become obsolete. This makes them switch to print-on-demand which allows for last minute changes when this would be needed while avoiding obsolete stock and waste costs. Pipe marking is an interesting application for digital production since it's the only process that allows to deliver a fully customized package for a specific environment. Furthermore, digital printing with Xeikon offers:

- exceptional label sizes thanks to Xeikon's full-rotary printing technology
- a cross-over with flexo of at least 4,000 line meter (13,000 linear ft)
- no start-up costs
- no job changeover costs on the same print media
- ability to print unlimited number versions (SKUs) in one go
- ability to print single and full color variable information, integrated in the label

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Vectorizer HYBRID	Avery Dennison TRANSFER PET WH TOP - S8002-BG42WH	PantherCure CMYK	SEI Laser Diecut



## PARTNERS



# SELF-ADHESIVE LABELLING

## SPIRIT LABELS



Spirit labels cover a broad range from Whiskey and Gin to Vodka. Hence there is a broad range of print media, embellishment and print used to decorate the bottles which hold the spirit. Self-adhesive labels as such (aka ‘pressure sensitive labels’ or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer of adhesive and the facestock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. A web-fed process brings a high label application speed on the packaging line and allows for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/container just by taking another glue.



### What is the value of digital printing?

As the market creates more versions of different spirits with different flavors, the large label runs are broken down into smaller ones which makes it more complex to print these cost-effectively on conventional printing presses. Top brands are experimenting with personalized versions which can only be done through digital printing. Furthermore, digital printing with Xeikon offers:

- a range of digital presses which fit with any type of print volume
- high quality level which can be tuned to expectation (flexo, offset or gravure look-a-like)
- an ink system without being not able to effect consumer experience

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Brand Protection Features, Track & Trace, CERM	Avery Dennison AR107 PP50 TOP CLEAR-S7000-rPET23	Cheetah toner	Xeikon Dcoat



### PARTNERS





# SELF-ADHESIVE LABELLING

## FOOD LABELS



Food labels are price sensitive due to the share of volume they represent in the market and short lifetimes. Hence a lot of paper based materials are used and they have a specific requirement to be food safe. No brand owner wants to take the risk of a product re-call which does not only represent a high cost but also damages the brand identity. Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer of adhesive and the facestock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. A web-fed process brings a high label application speed on the packaging line and allows for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/container just by taking another glue.



### What is the value of digital printing?

More varieties drive the run lengths down in the food industry and create a need for more cost-effective production methods. Furthermore, digital printing with Xeikon offers:

- the most food-safe solution in digital printing with its dry toner
- ability to match your color between digital and conventional with Xeikon color services
- inline varnish solution to verify if tcolor (brand colors) match the expectation of the customer

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Job Optimizer, Separator Labels	UPM RAFLAGLOSS PEFC / RP51 / HONEY GLASSINE 65	Cheetah toner	Brotech diecut, varnish, slitting



### PARTNERS



# SELF-ADHESIVE LABELLING DIRECT THERMAL LABELS



Freshly packed food (fruits, vegetables or meat) require a label which is decorated on the time of packaging and should at that point also include weight, price, expiry date etc. A common technology to create this information on the spot are direct thermal labels. This also applies for logistical tags at the airport. The branding of such labels is important, so rather than just using blank labels printed labels are preferred which comes with a heat-sensitive layer that does require some experience. Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer of adhesive and the facestock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. A web-fed process brings a high label application speed on the packaging line and allows for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/container just by taking another glue.



## What is the value of digital printing?

The consumer market is diversifying more and more. This leads to a larger number of products in the retail stores or being shipped to our house, which drives the trend of short lead-time, more jobs per month but with smaller quantity. The correct answer to address this cost effectively is the use of digital production techniques. Furthermore, digital printing with Xeikon offers:

- a choice of production capacity with a broad range of 11 digital printing presses
- food-safe solutions through the application tuned, specifically developed toner
- the ability to complement offset printing through the high image quality

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Labeltraxx	Avery Dennison BG832 THERMAL 200HD PLUS FSC S2045N-BG40BR	ICE toner CMYK	Xeikon Entry Dcoat



## PARTNERS



# SELF-ADHESIVE LABELLING PHARMACEUTICAL LABELS



Pharmaceutical labels are by legislation driven to become unique and as such traceable. This does not relate to the image (at this point) but to variable, unique codes. Through this, governments try to overcome fraud. Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer of adhesive and the facestock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. A web-fed process brings a high label application speed on the packaging line and allows for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/ container just by taking another glue.



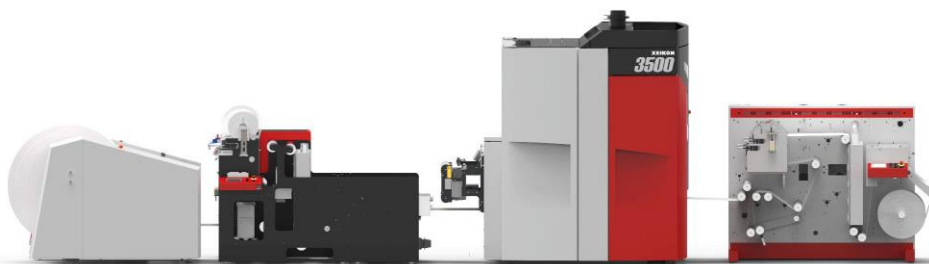
## What is the value of digital printing?

Ever changing legislation makes it a challenge for brand owners to have a large stock of labels as they can become easily obsolete. Additionally, there is a trend for more diversified products for different types, specified diseases etc. Hence they switch to print-on-demand which allows for last minute changes when this would be needed, and also avoids obsolete stock and wasted costs. Digital provides a cost-effective production method alongside conventional for the shorter to medium run lengths.

Furthermore, digital printing with Xeikon offers:

- food-safe and compliant toner for the pharmaceutical industry
- a broad range of security features from which a strong brand protection solution can be build
- a range of solutions in the realm of printing, converting software etc.

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Variable Data, Separator Labels, Job Optimizer	Avery Dennison PP50 TOP WHITE S7000-BG40WHFSC	QB-I + Super Black + 5th Color Orange	Xeikon Web Varnishing Module, Xeikon Print Medium Rewinder, Xeikon Dcoat



## PARTNERS



# SELF-ADHESIVE LABELLING LOGISTICAL LABELS



The supply chain to the consumer is continuously transforming. In the past we bought all at the local bakery – than there was a trend to supermarkets – today we shop at local farmers, local bakeries, in the supermarket but as well online. In the last case the interface with the consumer is more distant but you want to ensure a good customer experience. This example illustrates that with such variety of products being sold, shipped to 1000 destinations you can still create and maintain that customer experience. Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer of adhesive and the facestock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. A web-fed process brings a high label application speed on the packaging line and allows for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/container just by taking another glue.



## What is the value of digital printing?

Digital offers a range of specific benefits for this type of work. It dramatically increases efficiency by consolidating a number of different labels into one. Printing this in full color and high quality also strongly improves the customer experience, and digitizing this kind of complex workflow means less human errors are possible. In addition, these type of labels are produced just-in-time which avoids any stock of printed labels in advance and avoids labels becoming obsolete. All the data in this example, gathered from an ERP sales system is translated in million full color labels which are all variable but radiate top quality. Furthermore, digital printing with Xeikon offers:

- the ability to create a custom solution designed for your challenge. This can be software and hardware integration or specific developments.

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Variable Data CERM	Avery Dennison MC FSC - S2045N-BG40BR	Cheetah toner	Lemorau diecut, varnish



## PARTNERS



# SELF-ADHESIVE LABELLING DURABLE LABEL SIGNAGE



Any market where public health and safety is at stake will see an increased use in label signage such as traffic, safety, health, chemical, lockout signage. Durability is for sure an important aspect as you want to read the sign in 10 years time. Also the fit to the situation (reading distance defining the size of the label) or mentions of the precise substance. GHS standard has defined specific symbols to inform upon the situation. This means that the content of the signage is defined, however the size can vary based upon the circumstance e.g. a sign applied to the pipes in a factory. They can be very long, contain unique information per pipe and need to last for several years. Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer or adhesive and the facestock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. A web-fed process brings a high label application speed on the packaging line and allows for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/container just by taking another glue.



## What is the value of digital printing?

Label signage orders don't come in large volumes as they are bespoke for a specific situation (factory, construction site, ship, chemical plant,...). The content of the image can vary (e.g. due to language, specific substance flowing through a pipe, sitting in a barrel) but the symbols are the same through the global standards. Hence the business is mainly short run work. At the same time the substrate is relatively expensive which does not match with the short run as any type of waste will add up to the cost. Furthermore, digital printing with Xeikon offers:

- instant ability to alter the label size
- printing of multi-variants in one go
- prevention of costly substrate waste
- maximizing the production through digitalizing manufacturing

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800 Vectorizer	Avery Dennison TRANSFER PET WH TOP - S8002-BG42WH	PantherCure CMYK	CARTES laser diecut



## PARTNERS

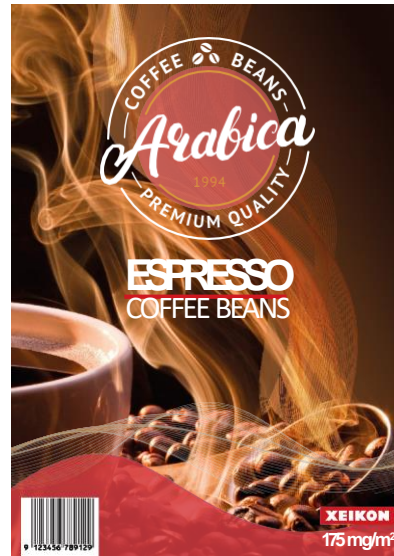


# WET-GLUE FOOD LABELS



Food labels are price sensitive due to the share of volume they represent in the market and short lifetimes. Hence a lot of paper based materials are used and they have a specific requirement to be food safe. No brand owner wants to take the risk of a product recall which does not only represent a high cost but also damages the brand identity.

Wet-glue labeling still dominates in the food and beverage world, a pre-eminence founded on its traditional edge in terms of quality and – for longer print runs – lower cost. The materials used for these labels are papers which can be coated, uncoated, structured, and also metalized to create special effects.



## What is the value of digital printing?

More SKUs demand for shorter runs. There is a large number of wet-glue label applicators installed in the market so rather than going to another decoration technique (such as self-adhesive labelling) there is a large potential for short-run wet-glue labels. Today's choice of substrates, workflow and finishing enables printers to go digital for small series and customized runs in wet-glue labels. Furthermore, digital printing with Xeikon offers:

- Xeikon's dry toner technology has a FDA food approval
- undistinguishable quality from your offset production and as such provide a complement to offset
- a cross-over with offset of at least 3,000 B2 sheets or 2,100 line meter (6,889 linear ft) or >70,000 labels
- no start-up costs
- no job changeover costs on the same print media
- ability to print unlimited number versions in one go

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800 Xeikon Color Control	Brigl & Bergmeister Niklaconcept Rock	QB-I + 5th Color	Xeikon Web Varnishing Module, Xeikon Print Medium Rewinder



## PARTNERS



# FLEXIBLE PACKAGING CHEESE LABELS



Cheese labels are printed on very thin paper (18 or 21 gsm), and after printing die-cutted and supplied as a stack of single labels. These are then applied with paraffin to the cheese ball. Besides the labels, there are also banderols applied around the cheese ball. It is clear that for these labels there is a high need for food safety. The colors require a supporting white underlayer to ensure the colors stand out. Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer of adhesive and the facestock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. A web-fed process brings a high label application speed on the packaging line and allows for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/container just by taking another glue.



## What is the value of digital printing?

Shorter run, these labels are produced conventional on wide-web flexo presses which come with high start-up costs. Additionally, these presses don't have a variable repeat length which also makes change-overs costly. Hence, even medium run lengths benefit from being printed on a digital press. Additionally the trend of more local and regional products supports the need for short runs. Furthermore, digital printing with Xeikon offers:

- the ability to build custom solution which can both rewind and sheet the output of the press
- the ability to cost efficiently address run lengths of more than 10,000 cheese labels/job

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800 Color Magic	Montsegur Silk Paper Crème 18g/m <sup>2</sup>	Special food-safe toner for Xeikon 9800	Xeikon Web Finishing Module, Xeikon Stacker



## PARTNERS



# CARTON PACKAGING PHARMACEUTICAL PACKAGING



One of the segments which has great opportunities within digital printing is the pharmaceutical industry. With the new legislation upcoming, digital production can support in a number of ways. This goes from unique packaging and track & trace to brand production. But also think of the fact the packaging needs to be created in the most optimal way for the end consumer, decreasing production volumes and a growing number of SKU's.



## What is the value of digital printing?

Ever changing legislation makes it a challenge for brand owners to have a large stock of packages as these can become easily obsolete. Additionally there is trend for more diversified products for different types, specified diseases etc. Hence they switch to print-on-demand which allows for last minute changes when this would be needed, and avoids obsolete stock and wasted costs. The average production volume will go down and digital is perfect to minimize set up costs. Furthermore, digital printing with Xeikon offers:

- offset quality with the advantages of digital printing
- food safe and migration compliant technology
- excellent deinkability to support and ensure optimized recycling process

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Variable Data, Xeikon Color Control, Separator Sheets, Vectorizer	MetsäBoard ProFBB 265gsm	QB-I + Super Black + 5th Color Orange Flint Group Novaset High Gloss Coating	Xeikon Web Varnishing Module, Xeikon Pile High stacker, FDU, Lamina glue & fold



## PARTNERS





# CARTON PACKAGING AUTOMOTIVE PACKAGING



*There is no industry more driven by JIT delivery than the automotive industry. This industry has also an enormous number of SKU's due to the number of car parts which are available per brand and version. Digital printing and integrated MIS systems will not only optimize your supply chain, you will also be able to strengthen your dealer/customer relationship by personalizing your packaging.*



## What is the value of digital printing?

Every change of a new product makes it a challenge for brand owners to have a large stock of boxes as they can become easily obsolete. Hence they switch to print-on-demand which allows for last minute changes when this would be needed, and avoids obsolete stock and wasted costs. Digital production and integrated MIS systems will not only optimize the supply chain, it also strengthens the dealer and customer relationship by personalizing the packaging and supporting efficiently the just-in-time delivery requirements. Furthermore, digital printing with Xeikon offers you:

- offset quality with the advantages of digital printing
- excellent deinkability to support and ensure optimized recycling process

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Variable Data, Vectorizer	Stora EnsoCKB 330	CMYK QB-I Flint Group Novaset High Gloss Coating	Xeikon Web Varnishing Module, Xeikon Pile High Stacker, Xeikon FDU



## PARTNERS



# CARTON PACKAGING BAKERY PACKAGING



*Our technology makes no use of mineral oils and is probably the most food safe solution in the digital environment. This creates lots of opportunities towards the food sector going from small run lengths to promotional items of seasonals. Together with our partners we will work out a number of options which will help you understand the possibilities for your production process.*



## What is the value of digital printing?

In the bakery industry, there is a growing need for cost-effective, short-run digital printing solutions. Brand owners want to launch more seasonality products, limited editions, brand recognition ... to attract to end consumer. The trend is that more and more local pastry, confectionary and foodservice shops want to differentiate with their high-quality products. Evidentially, the packaging needs to follow this trend, and be of course produced with the highest printing quality. Furthermore the Xeikon technology contains no mineral oils and is the most food-safe solution in the digital environment. This creates lot's of opportunities towards the food sector, including the bakery segment. Furthermore, digital printing with Xeikon offers you:

- offset quality with the advantages of digital printing
- food safe and migration compliant technology
- excellent deinkability to support and ensure optimized recycling process

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Vectorizer	Iggesund Invercote G300	CMYK QB-I Flint Group Novaset High Gloss Coating	Xeikon Web Varnishing Module, Xeikon Pile High Stacker, Xeikon FDU



## PARTNERS



# CARTON PACKAGING CONFECTIONARY



Confectionery packaging has 2 important functions that go hand in hand: it has to tickle the taste buds and still protect its delicious content at the same time. For chocolate bars, folding carton is still the material of choice to create packaging solutions. Due to its rigidity it protects the product but it also keeps it fresh and tasteful for a longer period of time. Folding carton is recyclable and has a high so called “product-to-package” ratio (meaning that its content can seriously outweigh its packaging) which makes it very acceptable in terms of sustainability.



## What is the value of digital printing?

There's a growing need for cost-effective, short-run digital printing solutions in the confectionary industry. Brand owners want to launch more seasonality products, limited editions, brand recognition ... to attract the end consumer. The trend is that more and more local confectionary and foodservice shops want to differentiate with their high-quality products. Evidentially, the packaging needs to follow this trend, and be of course produced with the highest printing quality. Furthermore the Xeikon technology contains no mineral oils and is the most food-safe solution in the digital environment. This creates lots of opportunities towards the food sector, including the confectionary segment. Furthermore, digital printing with Xeikon offers you:

- offset quality with the advantages of digital printing
- 5 colors possible
- food safe and migration compliant technology using dry-toner technology
- excellent de-inkability to support and ensure optimized recycling process

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Separator Sheets, Vectorizer, Meta Data	MetsäBoard ProFBB 265gsm	QB-I + Super Black + 5th Color Orange Flint Group water based varnish	Xeikon Web Varnishing Module, Xeikon Pile High Stacker, Xeikon FDU



## PARTNERS



# CARTON PACKAGING

## PAPER CUPS



Beverage cups are produced on a single or double-sided PE coated paper. After printing and potentially varnishing, the rolls are either converted in single cups or a reel of single cups. This is driven by the type of cup making machines that are being used (sheet-fed or roll-fed). The single coated paper is used for hot drinks and the double side coated for cold drinks (after serving, condense could arise on the outside surface affecting the structural strength of the cup when there would be no outside PE coating). The PE coats allows for the cup to be formed and sealed in the required shape. Conventionally these are mainly printed with web-fed flexo.



### What is the value of digital printing?

We see a trend and desire in refining food service packaging – create better image to end consumer. Customers & brands looking for new experiences are driving short run customizable production. Furthermore, digital printing with Xeikon offers:

- flexibility in terms of run lengths as it can vary from 1 to many
- fast and efficient production process especially when having many different designs of the same size, which can be consolidated into one larger print run
- food safe and migration compliant technology
- excellent deinkability & compostability to support and ensure optimized recycling process

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Separator Sheets, Vectorizer, HYBRID	Kotkamills ISLA Duo	Foodsafe toner ICE toner CMYK	Xeikon Print Medium Rewinder Large, Rietstack diecut



### PARTNERS

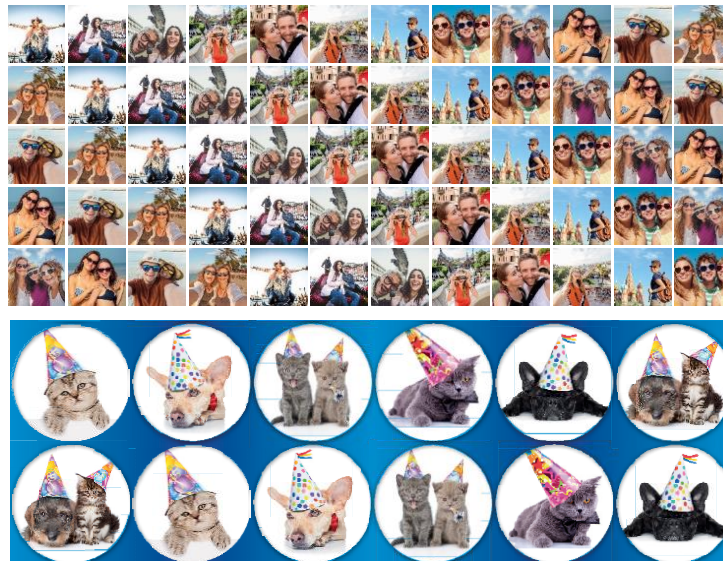


# GRAPHIC ARTS

## WRAPPING PAPER



*Opening and unboxing gifts is an old habit that generally creates emotional and memorable moments for different reasons: the occasion or the gift itself. Customization is key everywhere in today's marketing. Creating customized or personalized wrapping paper requires digital production techniques.*



### What is the value of digital printing?

Digital production is making it easier and more affordable to produce one-off wrapping paper for marketing purposes or web2print sales of unique one-off products. The shorter run lengths, possibilities of store or regional specific campaigns and the demand for quick turnaround underlines the advantages of digital production. Furthermore, digital printing with XEIKON offers:

- unlimited length of printing size
- Offset printing quality at high speeds with the advantages of digital printing
- excellent deinkability to support and ensure optimized recycling process

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800	UPM Flexpack 70 gsm	QA-CD CMYK	Xeikon Web Finishing Module, Xeikon Print Medium Rewinder



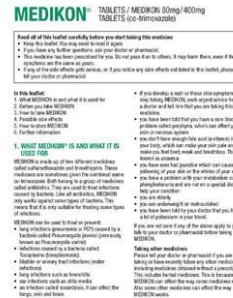
### PARTNERS



# GRAPHIC ARTS PHARMACEUTICAL LEAFLETS



A pharmaceutical leaflet is a document provided along with a prescription or over-the-counter medication to provide additional information about that drug. It is printed on both sides with fine prints on mainly thin paper. In the pharmaceutical and healthcare sector, patient information leaflets are mandatory and subject to strict regulations. The same holds, to a lesser extent for all sorts of chemicals, electronic devices etc.



## What is the value of digital printing?

Digital printing and manufacturing offers possibilities for versioning, language changes and full color print to turn an informational leaflet into a marketing tool. The possibility for shorter runs and faster turnaround times results in better economics to optimize your production. Furthermore, digital printing with Xeikon offers:

- perfect runability of thin paper stock at high speed, no coverage limitation, avoiding any wrinkling and finishing issues
- excellent deinkability to support and ensure optimized recycling process

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800 Impactor	Koehler PakoPharm	QA-CD CMYK	Xeikon Web Finishing Module, Xeikon Print Medium Rewinder



## PARTNERS



# GRAPHIC ARTS

## PHARMACEUTICAL PROMOTION



Display material to advertise a product where it is being sold ranges from shelf strips, posters, banners, aisle stoppers, wobblers and can be used in and outside. Most of the time these promotions are temporary however often remain for a few weeks or even month in a lighted space, which typically sets specific requirements towards light fastness of the prints.



### What is the value of digital printing?

Digital printing and manufacturing offers possibilities for versioning, language changes and highest quality full color personalized print-on-demand of the retail shop. Combined with intelligent workflow and MIS integration, digital printing helps you in setting up the centralized logistic JIT flow of printed products to whole chain of the shop, each having their unique mix of products, quantities and personalized POS materials. Furthermore, digital printing with Xeikon offers:

- optimal imposition of your job and waste reduction due to webfed technology
- offset quality with the advantages of digital printing
- 5th color station for brand colors
- excellent deinkability to support and ensure optimized recycling process

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800	UPM Digi Color Laser 250	QA-CD CMYK + Orange	Xeikon Web Finishing Module; Xeikon Print Medium Rewinder



### PARTNERS



# Xeikon Café Partners



**XEIKON**

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