HP Indigo Digital Color

Infinite possibilities
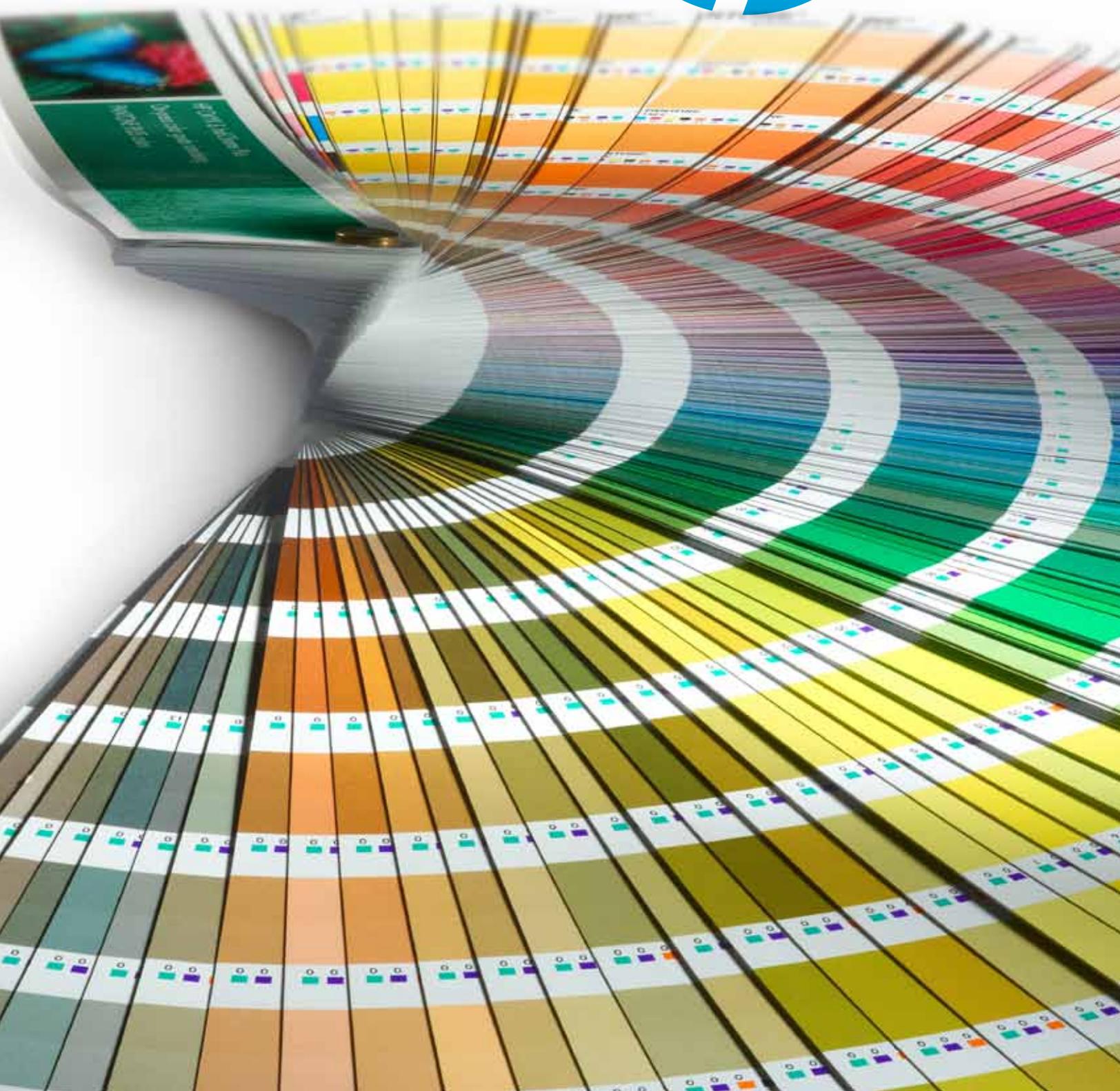
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Indulge on a feast of color

Vibrant color prints, show-stopping metallic cards and covers, sensory textured images, decked out invitations, and solid, consistent brand colors. Wouldn't it be amazing to please and satisfy discerning customers with this spread of high-value digital color printing applications? These appealing opportunities to deliver unique and differentiating prints to customers can be captured with HP Indigo digital color printing presses. Today's demanding customers are hungry for color-rich printing services with no minimum and fast turnaround. HP Indigo has the widest color selection, and even the most particular order can be produced on-demand.

The exclusive capabilities of HP Indigo presses include vibrant CMYK, an extended color gamut, spot colors, special effects, and embossed-style printing. HP Indigo digital color printing technology makes print service providers stand out and allows customers to **experience infinite possibilities**. **And here's how.**

HP Indigo ElectroInk—the only match to offset

All HP Indigo presses use HP Indigo's exclusive ElectroInk—offered in the widest digital gamut, using up to 11 primary colors. Another 6 special inks have been created for on-demand special effects. HP Indigo ElectroInk's particle size, down to 1 to 2 microns, allows for higher resolution, uniform gloss, sharp image edges, and very thin ink layers. HP Indigo's unique digital offset print process, liquid electrophotography (LEP), uses a heated blanket that causes the particles to melt and blend into a smooth film. The result is a print with true offset quality. The capability to increase the number of ink layers to more than four, which is natural in offset and in ElectroInk, is very difficult, if at all possible, when using the thick layers of DEP or, for inkjet, when conflicting with the drying requirements of fast heavy coverage printing. This results in a print quality versatility only offered by LEP.

This unique offering has made HP Indigo the leader in digital color printing. The winner of many competitions for print quality, including at the DIMA Shoot-Out, HP Indigo prints are certified by GRACoL and Fogra. HP Indigo printing is also the best digital press replacement solution for silver halide photos, with its photo prints permanence certified by Wilhem Imaging Research for more than 200 years for album or dark storage and up to 54 years for display.

The highest color flexibility*

HP Indigo offers the widest color selection in the digital printing industry. By adding more on-press color, in addition to special effect inks, texture, and spot colors to print capabilities, PSPs enjoy greater differentiation for themselves and their customers. And that means greater growth opportunities for digital printing business. These unique services can be offered by using up to 7 on-press ink stations. Dry toners provide no more than 5 ink stations. By adding more on-press color and special effects, the value of the page increases tremendously, benefitting both PSPs and customers.

The HP Indigo high-quality, high-value color and special effects portfolio:

Special effect inks and textured effects for differentiation

Spot inks for accurate brand color matching

Widest digital on-press color gamut

HP Indigo ElectroInk CMYK process colors

Deliver color at high speed

With HP Indigo, color can even be delivered at high speed using Enhanced Productivity Mode (EPM), which prints 33% faster using three color separations. In EPM, the press uses only yellow, cyan and magenta, eliminating the black separation when printing full color pages. EPM is suitable for color pages with high coverage.

*Color and special effects availability by press table on Page 11.

"The primary feature I liked was the unique liquid ElectroInk that could create rich, vibrant colors required for top quality color and productive printing."
David Minnett, Managing Director, Group Momentum, Australia

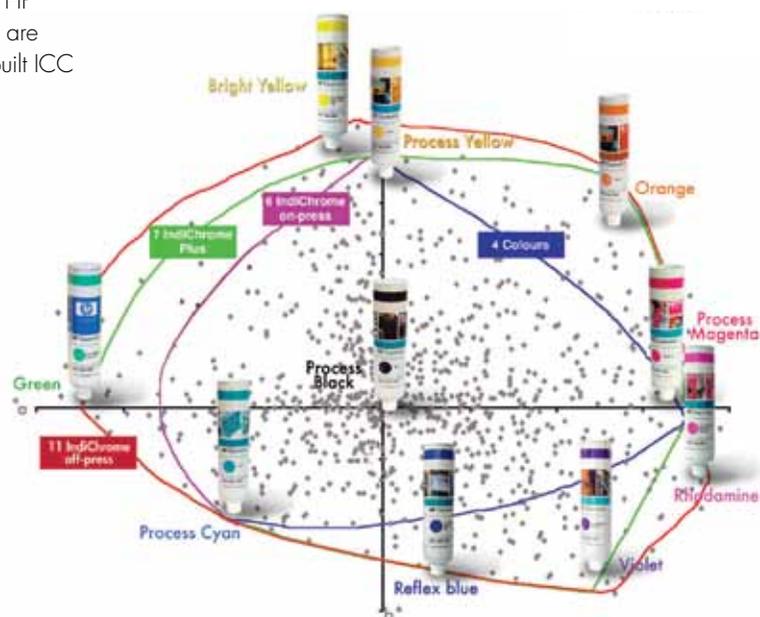## Secure customers with the most extended PANTONE® color matching

To allow print service providers the highest degree of flexibility in their offerings, HP Indigo has developed the broadest PANTONE-licensed set of solutions. HP Indigo's exclusive PANTONE-licensed toolbox makes it easy to match colors in offset quality.

Make the most with CMYK

CMYK can go a long way with HP Indigo digital presses. Using HP Professional PANTONE Emulation Technology, PANTONE colors are simulated on press in 4 colors at high accuracy utilizing custom-built ICC profiles for specific press/media combinations.

Impress with the widest on-press color gamut

HP IndiChrome and HP IndiChrome Plus offering from HP Indigo are the only PANTONE-licensed 6- and 7-color on-press solution in digital printing, offering CMYK plus orange, violet and green. Highly accurate PANTONE emulations happen on press using an extended color gamut, saving extra work of ink preparation, replacement and wash-ups. HP Indigo on-press color simulations support PANTONE PLUS®, PANTONE MATCHING SYSTEM®, and PANTONE Goe™.

- 4 colors (CMYK)
- HP IndiChrome on-press (CMYKOV)
- HP IndiChrome Plus (CMYKOVG)
- HP IndiChrome off-press (CMYKOVG and reflex blue, bright yellow, rhodamine red, and transparent)

Off-press spot color mixing delivers the broadest digital color gamut

Brand conscious customers usually require CMYK plus a specific spot color. A unique system for HP Indigo digital presses—also standard in the offset process—delivers accurate brand color matching (Delta E < 1). Simply specify a PANTONE color, and HP IndiChrome off-press creates the ink with a combination of 11 base colors: CMYK, orange, violet, green, reflex blue, rhodamine red, bright yellow, and transparent. With its support for PANTONE PLUS, PANTONE MATCHING SYSTEM, and PANTONE Goe, HP IndiChrome off-press extends spot color offerings to more than 3000, covering up to 97% of the PANTONE range.

The diagram on page 4 shows HP Indigo's extensive color range using CMYK, HP IndiChrome on-press, HP IndiChrome Plus, and HP IndiChrome off-press.

How to create spot colors

Using the HP IndiChrome Ink Mixing System (IMS), spot colors can be made in their precise quantities and on premises. This stand-alone system features state-of-the-art color measurement.

Together with HP Indigo's Pantone matching tools, the IMS makes spot color creation an easy procedure. Pre-mixed colors can also be ordered from the HP IndiChrome Ink Mixing Services by specifying the color number if a large quantity is needed for a specific color.

Switch unlimited spots seamlessly

To help printers use a variety of spot colors—and frequently change them—HP Indigo's On-press Fast Ink Replacement (OFIR) system eliminates ink replacement downtime for replacing special and spot colors on-the-fly while printing other jobs. The system also helps increase press uptime and productivity, improving color accuracy and reducing total cost of operation.

"Special colors have been a great success for 1st Byte. We are using the HP IndiChrome Ink Mixing System more or less every day."
Lawrence Dalton, Managing Director, 1st Byte, UK

Added differentiation with special effects

HP Indigo's 7 ink stations enable the addition of special effect inks, in the 5th, 6th, and 7th stations to create stunning printed products, offering outstanding differentiation to PSPs and their customers. Light cyan, light magenta, and light black inks used for professional photo applications produce high-end prints. White ink, UV red and digital matte enable special, high-value applications. On-press special printing effects using transparent ink and ink-created molds make unique prints with visible and tangible depth.

Enhance photos with light cyan and light magenta

When used with CMYK process colors, light cyan and light magenta provide an improved image with smoother tone transition and saturated colors, producing photos indistinguishable from silver halide. The additional inks provide a photorealistic appearance that enhances the quality of professional and photo specialty products such as photo prints, photobooks, photo calendars, greeting cards, and more.

Light black for professional photography

Using light black in 2-color printing with black produces high-end monochrome photographic books and professional black-and-white photo prints. This enhances the quality of the pictures, while doubling productivity.

Use HP Indigo ElectroInk Light Cyan and HP Indigo ElectroInk Light Magenta for portraits to produce more natural skin tones.

''In photography, the quality of colors in prints is paramount. HP Indigo is extremely reliable and consistently delivers the quality that is critical to our business.'' Dr. Dhiraj Kacker, CEO, Canvera Digital Technologies Pvt. Ltd., India

Stand out with HP Indigo ElectroInk White

HP Indigo is the only digital press vendor serving the sheetfed market that offers white ink, offering new opportunities to enhance creative printing capabilities and grow business. Use white ink to print high-value applications for marketing agencies and brand owners, and to bring new highlights to existing designs on a diverse range of media, including colored and metallic papers and transparent substrates.

Using white ink extends capabilities in many applications:

- Greeting cards, invitations and postcards
- Point-of-sale and special offer displays
- Signage for storefronts
- High-impact, personalized direct mail campaigns

When printing labels and packaging with HP Indigo presses, HP Indigo ElectroInk White Plus enables use of unique, high-value substrates including colored, dark, metalized, and transparent. HP Indigo ElectroInk White Plus creates an opaque appearance and solid backing for labels, shrink sleeves, and flexible packaging applications.

"The white ink presents innovative new applications we could not have produced before. Not only do we gain a broader range of capabilities for standard commercial products like invitations, the ink also makes some market segments, such as digitally printed point of purchase signage, a more natural extension of our business."
Val DiGiacinto, Vice President of Sales, The Ace Group, New York, US.

White ink opens new and innovative applications on transparent shrink sleeves, signage and metallic papers.

A high-value card secured with HP Indigo ElectroInk UV Red.
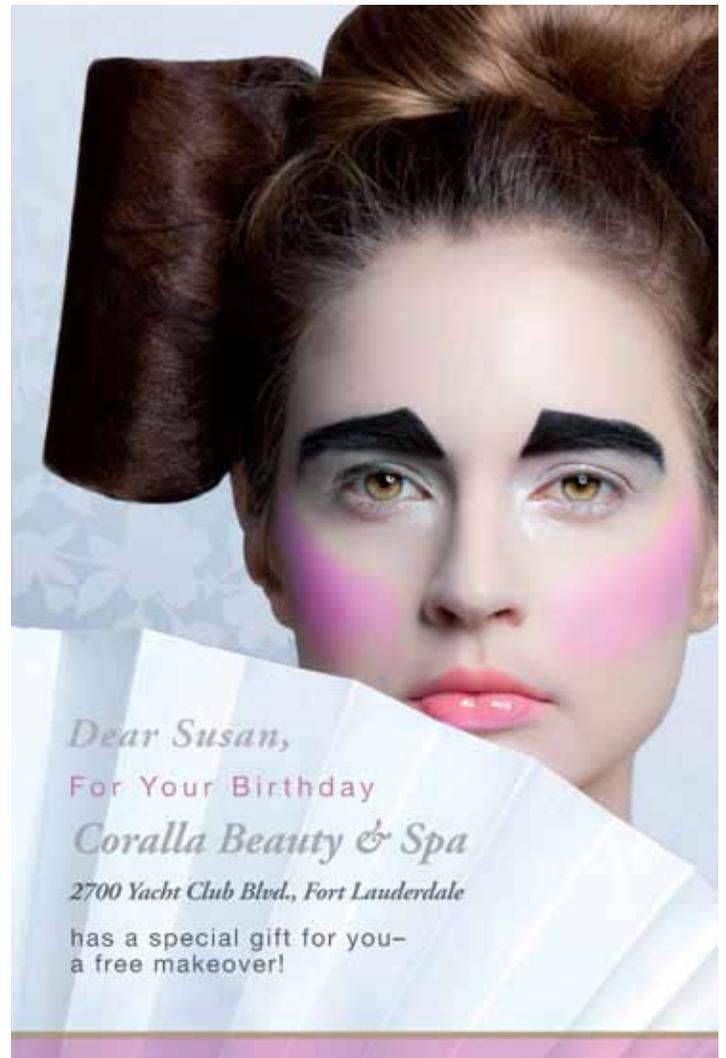
Get security jobs with UV red ink

New security applications can now be added to services arsenals with HP Indigo ElectroInk UV Red, an invisible ink that fluoresces under ultraviolent light.

- Produce a range of high-security plastic cards, including ID cards, drivers' licenses, and voting cards.
- Add anti-counterfeiting features for high-value coupons, and tickets.
- Issue invisible barcodes for in-house control.

Digital matte gives a sophisticated gloss effect

HP Indigo ElectroInk Digital Matte creates a differential gloss effect to add a spot varnish look—an effect that always captures attention. Compared to offset spot varnish processes, HP Indigo ElectroInk Digital Matte is lower in cost for short runs and also requires less press time.

Graphic designers will love HP Indigo ElectroInk Digital Matte for its creative possibilities, while customers will marvel at the outstanding artistic and marketing appeal of their materials. The pieces printed with HP Indigo ElectroInk Digital Matte can also improve revenues and increase gross margins.

Dear Susan,

For Your Birthday

Coralla Beauty & Spa

2700 Yacht Club Blvd., Fort Lauderdale

has a special gift for you— a free makeover!

Give a sophisticated look with HP Indigo ElectroInk Digital Matte.

Outstanding special printing effects

With a new set of special effects delivered on-press, on-demand, HP Indigo is innovating high-value digital printing areas, offering outstanding, further differentiation to the print service provider with a wide range of unique digital applications.

All effects are created on-press, making the process especially attractive for short- to mid-length runs and enabling fast turnaround time. These special printing effects can also be offered at a lower cost compared with laborious traditional methods, bringing new levels of production flexibility to commercial printers.

Now available on-press:

- **Textured and reverse textured effects**—Patterns are impressed into the substrate from a mold created on the press using layers of ElectroInk. This gives the paper an embossed look that is created without leaving ink behind. Produce high-value invitations, business cards, greeting cards, book covers, and more.
- **Raised print**—create raised effects and designs of varying heights using layers of HP Indigo ElectroInk Transparent applied directly to the substrate.
- **Digital watermarks**—offer customers a new digital application using only one layer of HP Indigo ElectroInk Transparent.

This embossed Christmas card with intricate textured effects was printed on coated 250 gsm paper by the HP Indigo 7600 Digital Press.

A book cover produced on 300 gsm coated paper with images of trees embellished in raised print.

Exceptional quality, largest selection of digital colors

HP Indigo has the solutions to meet your customers' needs to deliver unique, differentiating prints.

HP Indigo ElectroInk CMYK process colors

PANTONE PLUS®, PANTONE MATCHING SYSTEM®, and PANTONE Goe™

+	+	+

Widest digital on-press color gamut system

HP IndiChrome on-press & HP IndiChrome Plus*

Achieve a broad color gamut using 6 or 7 colors:

CMYK + Orange Violet] IndiChrome on-press

CMYK + Orange Violet Green] IndiChrome Plus

PANTONE PLUS, PANTONE MATCHING SYSTEM
*availability depends on specific press and print server

Spot inks for accurate brand color matching

HP IndiChrome off-press

Achieve precise spot colors via the Ink Mixing System by mixing the following inks:

CMYK + Orange
Violet
Green
Reflex blue
Rhodamine red
Bright yellow
Transparent] cover up to 97% of the PANTONE color range

PANTONE PLUS, PANTONE MATCHING SYSTEM, and PANTONE Goe

Differentiation through special effect inks

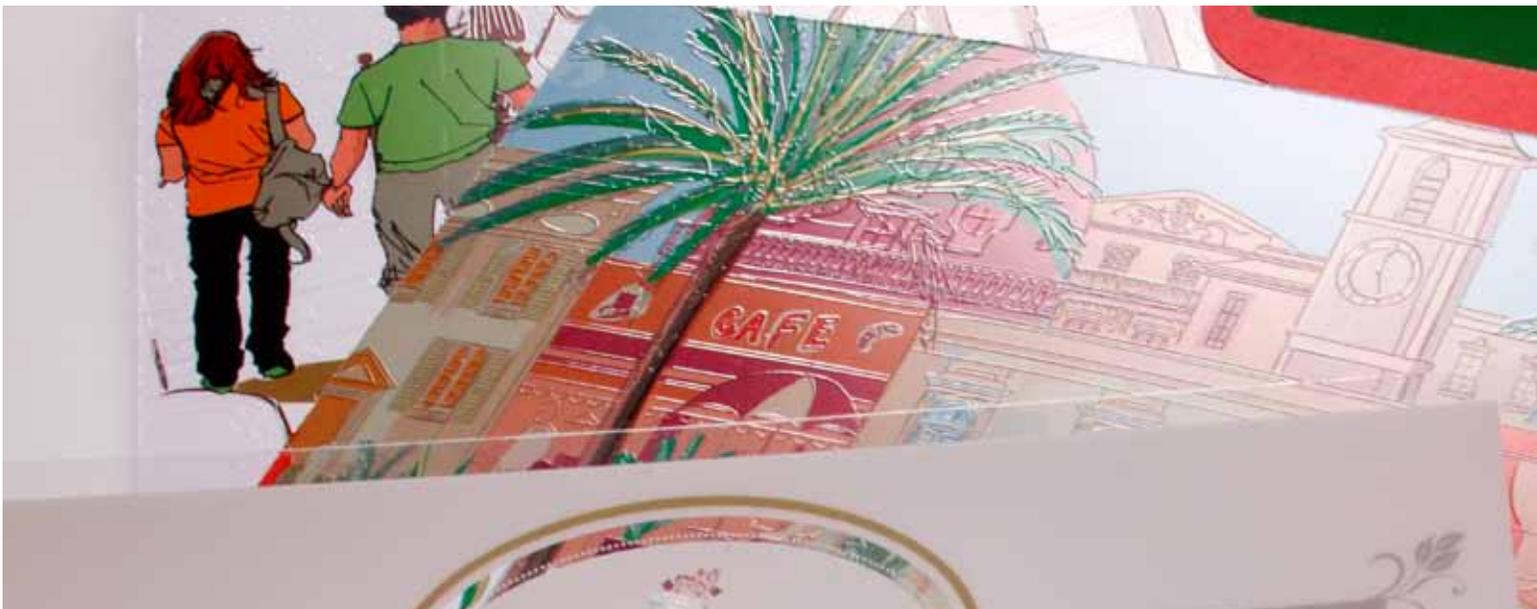Achieve superb print quality and expanded application range by using special effect inks*:

White, White plus
Transparent
Light cyan
Light magenta
Digital matte
Light black
UV red

*availability depends on specific press

A wide range of unique and differentiating prints that can be produced with HP Indigo digital presses.

HP Indigo ElectroInk availability by press

	CMYKOVG	EPM	IMS— Spot colors	Light cyan Light magenta	Light black	White	Digital Matte	UV red	Special effects*
Commercial									
HP Indigo 7600 Digital Press	√	√	√	√	√	√			√
HP Indigo 7500 Digital Press	√	√	√	√	√	√			√
HP Indigo 7000 Digital Press	√	√	√	√	√	√			√
HP Indigo 5600 Digital Press	√	√	√	√	√	√	√	√	
HP Indigo 5500 Digital Press	√	√	√	√	√	√	√	√	
HP Indigo 3550 Digital Press**	√		√						
HP Indigo W7250 Digital Press	√	√	√	√	√				
HP Indigo W7200 Digital Press	√	√	√	√	√				
HP Indigo WS6000p Digital Press	√		√	√		√			
Labels and Packaging									
HP Indigo WS4600 Digital Press	√	√	√			√		√	
HP Indigo press ws4500	√	√	√			√		√	
HP Indigo WS6600 Digital Press	√	√	√			√ + White Plus			
HP Indigo WS6000 Digital Press	√	√	√			√ + White Plus			

*Includes textured effects, raised print and digital watermarks.

** Up to 5 ink stations.

To learn more, visit www.hp.com/go/graphic-arts