



HP INDIGO DIGITAL PRESSES
Printing with the Environment in Mind



ECOSOLUTIONS

Executive Summary

HP environmental commitment

HP has been a leader in environmental stewardship for decades, and efforts to innovate and design for the environment represent a long-standing commitment rather than a recent trend.

In 2009, HP topped Newsweek's first Green Rankings of the 500 largest US companies⁽¹⁾ based on research and analysis of the company's actual environmental performance and reputation. HP has also been ranked first on the 100 Best Corporate Citizens List for 2010 compiled by Corporate Responsibility Magazine.

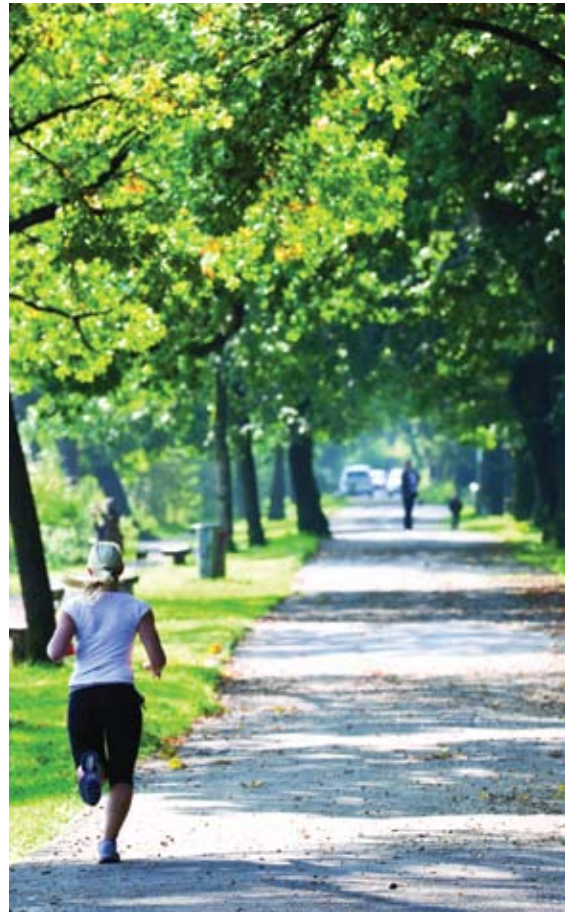
Today, under the HP Eco-solutions programme, HP takes a comprehensive approach to designing products with the environment in mind. This begins with careful planning in their design and extends to the materials used in the manufacturing process, right down to the product's "afterlife," where many convenient and responsible recycling options for equipment and printing consumables are offered.

HP Indigo digital presses and the environment

HP Indigo digital presses feature a range of technologies that reduce paper waste, energy usage and consumables consumption, and assist print service providers (PSPs) in achieving environmental and human health-related standards and certifications. Furthermore, there is a growing infrastructure for take-back and reuse or recycling of consumables, and even the presses themselves.

For PSPs, taking a more sustainable approach to printing is increasingly recognised not just as good practice, but as good business. Selecting the right printing solution can play an important role in helping a PSP improve the environmental profile of its operations and of its printed output.

These developments, and the very nature of digital on-demand printing – that enables the printing of just what is needed, when and where it is required – can help PSPs and their print-buying customers meet their own sustainability objectives.



A history of global citizenship

For more than fifty years, environmental responsibility has been part of HP's corporate culture.

With a long-established track record for environmental awareness and action, HP strives to integrate global citizenship practices into core business functions backed by public reporting and strong performance. Global Citizenship at HP encompasses corporate accountability and governance, environmental responsibility and a commitment to community investment and involvement. HP has rigorous processes in place to ensure its own compliance to established standards of responsible manufacturing, and has been widely acknowledged for its efforts.

HP topped Newsweek's first Green Rankings of the 500 largest US companies based on research and analysis of the company's actual environmental performance and reputation. HP has also been ranked first on the 100 Best Corporate Citizens List for 2010 compiled by Corporate Responsibility Magazine.

HP Eco-solutions for printing

HP places considerable focus on the environmental profile of its own operations and supply chain and is committed to being the most environmentally responsible IT company in terms of energy efficiency, resource conservation and end-of-life take-back and recycling programmes.

HP also designs its products to strict 'Design for Environment' criteria with an emphasis placed on helping customers reduce the environmental impact

HP Indigo environmental advances

1993 – Starting from the first model, all HP Indigo digital presses incorporate a system to capture and condense imaging oil vapour into a liquid

1997 – Press reconditionings begin, significantly extending press lifetime

2006 – Introduction of water-based primers as a suitable alternative to solvent-based ones
– Dedicated press reconditioning line established

2007 – The HP Indigo press 5500 includes an on-press oil recycling system that reduces the overall use of imaging oil by ~50 percent

2008 – The HP Indigo 7000 Digital Press requires up to 30 percent less energy per printed page than its predecessor

2009 – The HP Indigo WS6000 Digital Press is the first industrial digital press with an oil recycling system. Binary Ink Developer take-back and parts re-use programmetake initiated

2010 – The HP Indigo 7500 Digital Press improved on-press oil recycling system designed to eliminate the need for additional imaging oil.⁽²⁾
– The HP Indigo 7500 Digital Press requires up to 10 percent less energy per printed page than the HP Indigo 7000 Digital Press⁽³⁾



of their printing, be it through reduced wastage of media or consumables, reduced consumption of energy or through programmes to take-back printing hardware and used consumables, often for recycling or reuse.

Responsible manufacturing for HP Indigo digital presses and consumables

HP Indigo is committed to conducting its business in an environmentally responsible manner and aims for continual improvement in the environmental profile of its operations. Examples of this commitment include:

- All manufacturing facilities are ISO 14001 certified
- HP ElectroInk manufacturing site in Singapore is certified as a Sony Green Partner
- The energy required to manufacture each ink cartridge has been reduced by 18 percent between 2008 and 2009
- A 430m² solar panel array provides energy at the ink manufacturing plant in Kiryat Gat, Israel

Leaders and laggards

“The leading green printers are stepping up to these (green) practices pro-actively, and gaining market position as a result. Eventually, however, all printers will have to take up many of these green practices, whether because of legislative requirements or customer demand. The laggards will have to bear all of this cost, but without any of the marketing benefit.”

Sustainable Print in A Dynamic Global Market: What Going Green Means, Pira, 2009

Going green - good business; good practice

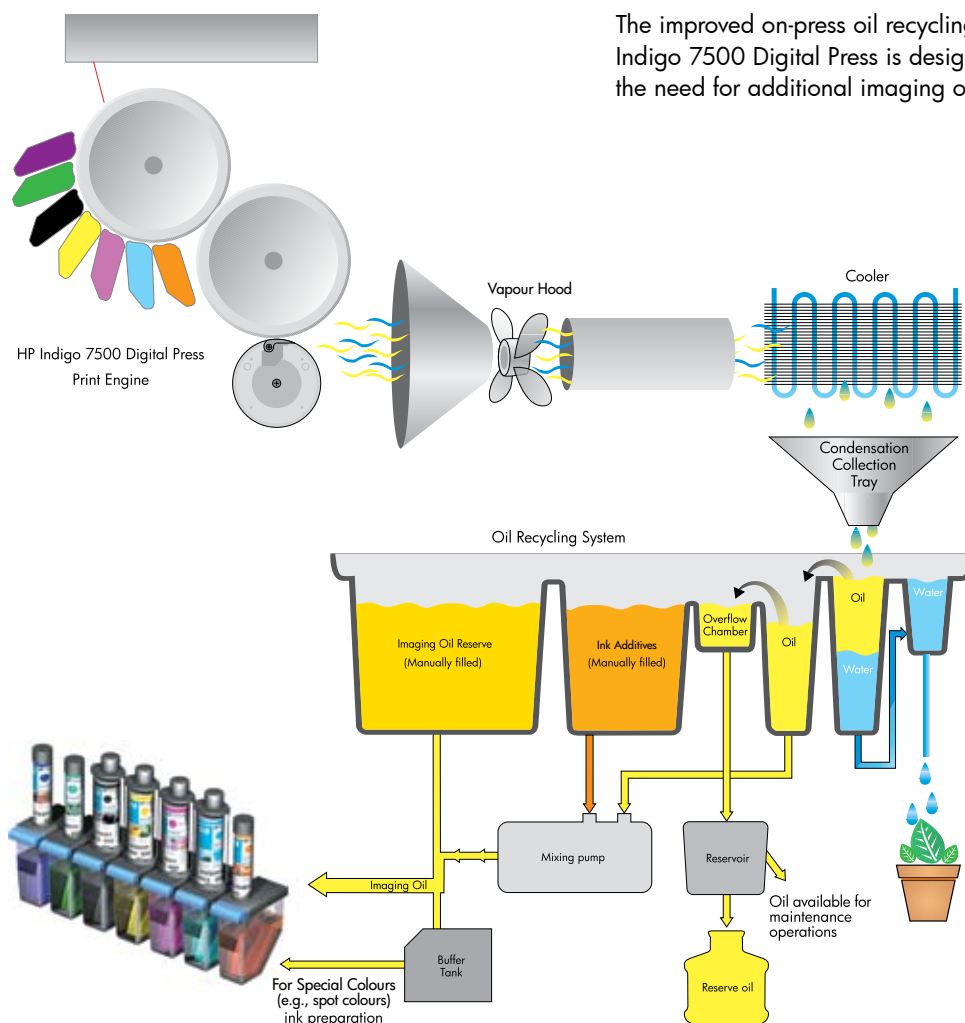
Today's print buyers are making increasingly sophisticated demands of the PSPs with which they work. These regard both the environmental profile of the prints that they purchase and the processes and technologies used to produce them. Often the companies they represent – especially international brands – may have established their own formal print buying criteria. Frequently, these cite relevant, respected environmental certifications such as Forestry Stewardship Council (FSC) chain-of-custody certification for paper or, the Nordic Ecolabel for the PSP themselves.

For a PSP, being able to demonstrate that prints of a comparable price and quality to those from competitors have a better environmental profile can be a powerful point of differentiation and can help them to secure additional business.

In addition, taking measures to reduce media wastage, cut energy bills, bring down waste disposal charges and address other environment-related costs can add up to significant savings.

Furthermore, taking a more sustainable approach to printing can boost employee engagement and help to prepare for future legislation.

Selecting the right printing solution can play an important role in helping a PSP to improve the environmental profile of its operations and of its printed output.



The improved on-press oil recycling system of the HP Indigo 7500 Digital Press is designed to eliminate the need for additional imaging oil.⁽⁴⁾

Graphic representation for illustration purposes only



Perception of the printing industry's carbon footprint

HP conducted an analysis of the carbon footprint of the world printing industry for its presentation to the IEEE International Symposium on Sustainable Systems and Technology, 2009.⁽⁵⁾

The global carbon footprint for printing (excluding packaging) for 2020 was calculated as either 370 or 850 million tonnes of CO₂e⁽⁶⁾, based on two different methodologies for calculation. While paper accounts for about 70 percent of those totals, moving from analogue to digital printing can produce a variety of benefits both in terms of environmental impact and business efficiency because of the significant paper savings made in make-ready and in printing only what is required.

Today, about 88 percent of print is produced by conventional, analogue methods (offset litho, flexography, gravure, letterpress, screen, etc.),⁽⁷⁾ but the advantages of digital printing, in terms of both environmental impact and good business, are increasingly compelling.

Conventional printing has been based on long runs and "unit cost," models. While superficially an efficient model, even today, after major improvements in technologies for plate-making, consumables consumption and control of hazardous materials, the legacy "unit cost" model still dominates. This model, which promotes increased print volumes because of the lower "unit cost" leads to printing more copies than are needed: increased shipping and storage costs, and, ultimately, increased waste disposal costs. For example, a survey of the US book industry⁽⁸⁾ showed that 25 percent of books are returned unsold. Similar waste occurs in other areas of print.

Set-up and make-ready is another leading factor in reducing profitability and generating waste. In addition to the environmental impact of plate-making, make-ready, registration, colour adjustment, etc., can

Lowering the carbon footprint with digital printing

With digital printing, no plates need to be prepared, no chemical processing or disposal is required, and once a simple pre-flight has been carried out on the digital files, printing can begin – with the first copy being saleable. Colour and register are immediately achieved, saving potentially significant quantities of paper.⁽⁹⁾

HP Indigo 7500 Digital Press's recycling system further reduces oil consumption

The HP Indigo press 5500 was the first to include an on-press imaging oil recycling system. During the printing process, oil is separated from the image by evaporation. The oil vapour is drawn into a cooler where it condenses, along with water from the ambient air.

The oil recycling system separates the oil from the water. The oil is pumped into the imaging oil tank and combined with ink additives (if needed). The recycled oil is then fed back into the press and is ready for use in the printing process, reducing imaging oil consumed by approximately 50 percent. The water generated during the separation process is normally clean enough to qualify for disposal via customers' facility drainage systems.

A similar system is also featured on the new series presses: The HP Indigo 7000 Digital Press, the HP Indigo WS6000 Digital Press and the HP Indigo W7200 Digital Press are equipped with recycling systems.

The new HP Indigo 7500 Digital Press features a more advanced version system that is still more efficient and eliminates the need to add imaging oil to the press.⁽¹⁰⁾



HP Indigo and HP Eco-solutions

HP Indigo digital presses reduce environmental impact on three different levels compared to conventional printing: digital on-demand printing, sustainable design and energy efficiency.

Digital on-demand printing

- Reduce wasted prints by printing only what is needed, when and where it's needed
- Greatly reduced set-up and changeover waste versus analogue

Sustainable design

- HP ElectroInk meets:
 - The chemical requirements of the Nordic Ecolabel for printing companies
 - In the USA: HP ElectroInk⁽¹¹⁾ complies with the Federal Food Drug and Cosmetic Act 21 U.S.C 201 (FFDCA) requirements for printing on the non-contact side of certain food packaging materials.⁽¹²⁾
 - In the EU: HP ElectroInk complies with Article 3 of the EU Framework Regulation Nr. 1935/2004 for printing on the non-contact side of certain food packaging materials.⁽¹³⁾
- HP ElectroInk is free from:
 - HAPs⁽¹⁴⁾
 - Particulate matter emissions
 - Materials subject to California Proposition 65
 - Lead, lead compounds or phthalates as ingredients. Laboratory tests indicate that the inks meet most requirements of US CPSIA.⁽¹⁵⁾
- HP Indigo prints are deinkable and recyclable
 - Starting with the HP Indigo press 5500, all new generation presses have a built-in Imaging oil recycling technology that reduces consumption by approximately 50 percent
 - Large selection of media with environmental credentials
 - Binary Ink Developer take-back and parts reuse programme⁽¹⁶⁾

Energy Efficiency

- HP Indigo 7500 Digital Press uses up to 10 percent less energy per printed page than its predecessor⁽¹⁷⁾

Recognising the environmental benefits of digital printing

Local and national governments are coming to appreciate the contribution to environmental impact that digital printing can make.

The California *Best Practices Manual - Printing Services*⁽¹⁸⁾ states:

Digital Printing

"High-speed digital printing is an excellent alternative to the traditional lithographic* printing process. The digital printing process produces a high-quality copy on the very first page, thus eliminating paper waste. Lithographic presses have a higher amount of waste paper and chemical usage as the printed press page is brought up to a usable quality. Lithographic printing is more affordable when printing large quantities of materials, such as voter guides, driving handbooks, and tax booklets.

"Digital printing is also beneficial in giving on-demand publishing opportunities. On-demand printing eliminates the need to store and inventory larger quantities of printed forms, brochures, directories and publications. Additional quantities can be produced "on-demand" when needed. On-demand printing works particularly well when printing documents that need frequent updating or are also available on your office's Web site.

"Digital printing also may provide for regional distributed printing, thereby saving shipping costs and reducing the demand for packaging materials.

* Lithography is a printing process based on the chemical law that fatty oily inks do not mix with water. It is usually referred to as offset."

Print recyclability, take-back and recycling, energy efficiency

HP operates sustainability initiatives for HP Indigo digital presses that address key areas of environmental concern in the printing industry. Continuing research and development and work with international organisations on print recyclability, take-back and recycling programmes for consumables and hardware, and press re-manufacturing are all part of HP's sustainability activities.

Print recyclability and deinking

Deinking is a key initial step in paper recycling where ink is separated from the fibres. The deinking efficiency is evaluated by measuring the residual ink specks in the deinked and processed pulp in terms of square millimetre per square metre. Brightness is also measured and compared to a target brightness and purity of the resultant un-printed recycled paper.

HP, in conjunction with leading paper research institutes such as Centre Technique du Papier (CTP), Grenoble, is researching deinking and processes and their applicability to HP Indigo printed media.

In 2009, single loop tests at CTP concluded that five out of six HP ElectroInk pages tested met general European Recovered Paper Council (ERPC) guidelines for deinkability.

Furthermore, large volumes of HP Indigo prints have been successfully deinked in trials managed by NewPage Corporation (see box).

In 2009, HP Indigo research and development and manufacturing facilities sold 60+ tons of HP ElectroInk prints each month for recycling.

Take-back and recycling

HP operates take-back and recycling programmes for HP Indigo digital presses that cover both consumables and hardware. Binary Ink Developers (BID) are eligible for a widely available take-back programme.⁽²⁰⁾

Used ink cartridges take-back and recycling are already available in some regions. Used imaging oil take-back has been started with the used oil burned to reclaim energy. For hardware, end-of-life trade-in options are available,⁽²¹⁾ and presses taken back by HP are either re-manufactured as R-series presses, or materials reclaimed for recycling or disposed of in a responsible manner.

Energy efficiency

The continuing energy improvements delivered by the HP Indigo 7500 Digital Press include: consumption of 50 percent less imaging oil than its predecessor, and up to 10 percent less energy consumed per printed page than the HP Indigo 7000 Digital Press. The HP Indigo W7200 Digital Press consumes up to 40 percent less energy per printed page than its predecessor.⁽²²⁾

Energy is also saved in these presses with built-in auto-stand-by modes and an easy shut-down/power-up for nights and weekends.

Print recycling pilot

In October 2009, Western Michigan University (WMU) Pilot Operations configured pilot unit operations and a trial design under the direction of NewPage Corporation and Technical & Investor LLC, to simulate the NewPage Duluth recycle pulp mill. The trial design adopted the flotation deinking process utilised at Duluth.

"The results of the WMU pilot trial showed 5% Indigo content recycled pulp with other typical mixed office waste can meet high recycled pulp quality dirt and brightness requirements utilizing a process similar to that operated by NewPage Duluth. A commercial 5% Indigo trial at NewPage Duluth was recommended and will be run as final proof. NewPage will proceed with that (mill) trial."

HP Indigo prints are deinkable and recyclable

HP ElectroInk 4.0 (launched in 2004) shows significant improvements in deinkability compared to the previous generation ink.

HP Indigo digital presses support 800+ substrates with environmental credentials, many of which include recycled content (30 – 100 percent post-consumer waste (PWC)).



Environmentally, how does digital printing compare to offset litho?

A comparative environmental life cycle assessment (LCA) was conducted on the impacts of printing marketing collateral on an Indigo 7000 digital press and a specific competitive offset press with sizable market share. The study was conducted by a third-party company, Sylvatica, in accordance with ISO standards for studies at making comparative assertions, and was reviewed by an independent panel of experts. The study focused on printing 8-page letter-size full colour brochures. Environmental impacts were divided into four categories of human health, ecosystem quality, climate change (carbon footprint) and resources.

Key findings of the report included:

The most significant life cycle stages were the media production, power consumption and the consumables life cycle. The actual press life cycle (including manufacture), the end-of-life of the paper and the brochure distribution contributed very little to the environmental impact.

The test runs were conducted at the economic break-even point of the HP Indigo 7000 Digital Press (the number of pages below which digital printing is more economical than conventional offset). The economic break-even point for this job and press was 993 brochures, comprising 3,972 double-sided letter-sized pages.

The HP Indigo 7000 Digital Press had a potentially 30 percent lower carbon footprint than the offset press. These results are yet more favourable for the digital press at shorter run lengths.

The environmental break-even point (where the presses tested have equal potential environmental impact) is 2.4 – 4.1 times greater than the economic break-even point, in favour of the digital press. The environmental break-even point in terms of carbon footprint is circa 3,000 8-page brochures (12,000 letter-sized double-sided pages).

Sustainable media

HP Indigo digital presses support a wide range of media, with 800+ qualified papers meeting, amongst others, these standards:

- Forestry Stewardship Council (FSC)
- Sustainable Forest Initiative (SFI)
- Programme for the Endorsement of Forestry Certification (PEFC)
- Recycled Papers

How digital printing supports the environment

- Reduced paper waste: print only what you need
- Print near the place of use to reduce delivery distances
- Higher returns on fewer pieces: leverage variable data capabilities
- Reduced make-ready and change-over waste
- End-to-end advantages over conventional printing

HP Indigo Digital Presses



HP Indigo 7500 Digital Press

Digital on-demand sheet-fed printing for high quality production

- Improved recycling system designed to eliminate the need for additional imaging oil
- Uses up to 10 percent less energy than the HP Indigo 7000 Digital Press
- Binary Ink Developer (BID) take-back programme
- Wide range of media with sustainability credentials available



HP Indigo WS6000 Digital Press

Digital on-demand web-fed printing for labels, shrink sleeves and packaging

- Recycling system reduces imaging oil by 50 percent over its predecessor
- Binary Ink Developer (BID) take-back programme



HP Indigo W7200 Digital Press

Dual-engine web-fed digital on-demand printing for up to 7 million A4 colour images per month

- Imaging oil recycling system: limits environmental footprint by reducing oil consumption as well as waste
- In-line priming system reduces production time and media costs
- In-line finishing solutions reduce cost and waste
- Binary Ink Developer (BID) take-back programme



HP Indigo press 5500

High quality digital on-demand sheet-fed printing for up to 500k pages per month

- Introduced on-press imaging oil recycling system
- Imaging oil consumption reduced by 50 percent
- Total oil waste reduced by 50 percent
- Eligible for BID take-back and parts re-use programme

Q&A

Can HP Indigo digital presses print on substrates with environmental credentials? (Recycled, FSC certified, carbon-neutral, etc.)

Yes. HP Indigo printing presses commonly print on a variety of substrates certified by HP Indigo and environmental organisations. Highly sought after media with FSC, SFI and PEFC accreditations are readily available from many mills and merchants. In addition, products made with recycled fibre, wind energy and carbon neutral manufacturing processes are readily available and provide customers with sound media choices for their clients and the environment. Customers who want more information on Indigo certified suppliers please refer to the HP Indigo Media locator.

<http://www.hp.com/go/medialocator>. For more specific product information, please contact the suppliers directly.

Can HP ElectroInk be used for printing on packaging for food or the pharmaceutical industry?

There are HP Indigo customers that print for the food and pharmaceutical industries. HP Indigo printing presses are used successfully to meet customers' requirements on a daily basis.

In the USA: HP ElectroInk complies with the Federal Food Drug and Cosmetic Act 21 U.S.C 201 (FFDCA) requirements for printing on the non-contact side of certain food packaging materials.⁽²³⁾

In the EU: HP ElectroInk complies with Article 3 of the EU Framework Regulation Nr. 1935/2004 for printing on the non-contact side of certain food packaging materials.⁽²⁴⁾

Due to the varying requirements in each country and differences in regulations between industries (food and pharmaceutical), it is appropriate to verify with the companies that actual use this printed material if there are specific rules or use scenarios that need to be addressed for these specific cases. Customers should also work with their own consultants and experts to ensure that their printed products and printing processes meet the applicable rules in relation to the specific use scenarios in question.

What types of emissions are released from HP Indigo digital presses?

- During the printing process, volatile organic compounds (VOCs) are released from the inks used in the press. However, none of HP Indigo's inks or other supplies contain substances that are listed on the US Federal list of Hazardous Air Pollutants as established under Section 112 of the Federal Clean Air Act (42 USCA § 7412).
- HP Indigo digital presses have an on-board solvent recapture system. Most of the emissions are captured in a cooling system for disposal or recycling.

- Ozone exposure levels in the workplace are subject to control and regulation across the world. HP Indigo digital presses produce ozone at low levels, generated by the scorotron (in older presses) and charge roller (in latest generation presses) that charges the photoreceptor. In regular operation, ozone peak levels are found to be well below the international occupational health standard of 100ppb for an eight-hour exposure level. In HP Indigo presses, the ozone is captured by highly efficient charcoal absorber cartridges.
- Following the manufacturer's advice is essential for health and safety and environmental compliance, and users need to be aware of any and special local requirements.

What are the advantages of HP ElectroInk over dry toner?

Apart from achieving the look and feel of offset printing, HP ElectroInk offers other advantages to a PSP's business as well as to the environment. HP ElectroInk achieves better colour saturation with one quarter of the ink solids used in dry toner systems.

This results in a thinner layer being necessary to produce a similar colour density as dry toner. Subsequently, less waste ink is generated during the recycling process.

Are there any listed air contaminants in HP ElectroInk, and do presses and other supplies meet environmental and health and safety standards?

Each country establishes its own environmental health and safety requirements and determines their applicability to various types of equipment. There are certain safety standards which have become internationally known or accepted. HP places a high priority on meeting applicable safety standards for its HP Indigo digital presses, supplies and HP ElectroInk.

There are no toxic air contaminants in HP ElectroInk as defined in the California Toxic Air Contaminants list or in the Federal Hazardous Air Pollutants list. In addition:

- HP ElectroInk meets the requirements of the Nordic Swan Ecolabel for use on printed matter. The Nordic Swan criteria include requirements as to chemicals, emission to air and water, and waste treatment.
- HP ElectroInk complies with the Stockholm Convention on Persistent Organic Pollutants.
- HP ElectroInk complies with the Montreal Protocol on Substances that Deplete the Ozone Layer.
- No California Proposition 65 ingredients are used in HP ElectroInk.
- No chemicals requiring Prior Informed Consent under the Rotterdam Convention for use in International Trade are present in HP ElectroInk.

- HP ElectroInk is not classified as Dangerous Goods under International Air Transportation Association Regulations.
- There are no air contaminants in HP ElectroInk as defined in the California Toxic Air Contaminants list.
- Used empty HP ElectroInk cartridges are not classified as Hazardous Waste under the US Code of Federal Regulation (40 CFR 261.3).

Does HP ElectroInk contain heavy metals?

HP ElectroInk does not contain lead, cadmium, mercury or hexavalent chromium in a combined concentration exceeding 100 parts per million by weight of the ink in the dry state, based on the formulation of HP ElectroInk and information received from suppliers.

Where can I find a list of the HP Indigo Material Safety Data Sheets (MSDS)?

Customers who want HP Indigo MSDS documents may find them online at: <http://www.hp.com/go/MSDS>

Does HP have a take-back programme for used or end of life presses, recycled or reused supplies and parts?

Coverage of HP's take-back programme, at present, varies by region and product, but its services are continuing to be rolled out.

HP Indigo reuses or recycles various components from trade-in presses as well as field-replaced components. HP Indigo reuses packaging from new presses and spare parts delivered at customer sites. Binary Ink Developers (BID) are eligible for a widely available take-back programme.⁽²⁵⁾

Used ink cartridges take-back and recycling are already available in some regions. Used imaging oil take-back has been started with the used oil burned to reclaim energy. For hardware, end-of-life trade-in options are available (availability varies).

Disposal of waste is regulated on a municipal, state and national level. Consult with your local authorities and determine the correct manner in which to dispose of such waste. A printing press user guide and site preparation instructions provide preliminary instructions on how to dispose of waste generated in a digital printing process. Employment of a licensed haulage contractor is strongly recommended.



How do I know what legal requirements apply to the operation of my HP Indigo press?

Operation of equipment such as HP Indigo digital presses is often regulated by national, state or municipal legislation/regulations. The regulations that apply to the operation of the HP Indigo digital presses may vary depending on location.

Please consult with your local adviser regarding the legal requirements applicable to your press's location by consulting your area's waste disposal authority.



Notes

- (1) Newsweek Green Rankings 2009
- (2) Assuming average volume and print coverage
- (3) Assuming measurement over a 24 hour period and average utilisation
- (4) See note 2
- (5) "Reducing the Greenhouse Gas Emissions of Commercial Print with Digital Technologies" by Scott Canonico (HP), Royston Sellman (HP Labs), Chris Preist (HP Labs), 2009
- (6) CO₂e = carbon dioxide equivalent of all greenhouse gases
- (7) HP internal sources
- (8) Book industry Study Group and Green Press Initiative, "Environmental Trends and Climate Impacts in Book Publishing," 2008
- (9) See note 5; also, US EPA Greenhouse Gas Equivalencies Calculator, February 17, 2009 update (www.epa.gov/cleanenergy/energy-resources/calculator.html)
- (10) See note 2
- (11) Current generations of process colours
- (12) Validated food packaging materials are: (1) low density polyethylene (LDPE) that is at least 40 microns thick; (2) polypropylene that is at least 20 microns thick; and (3) polyester which is at least 12 microns thick. Where the resulting packages may be used to hold all types of food at temperatures up to 100 deg C (also known as FDA's Condition of Use B, "Boiling Water Sterilized", under 21 CFR 176.170).
- (13) HP ElectroInk mark 4.0 complies with Article 3 of the EU Framework Regulation Nr. 1935/2004 for printing on the non-contact side of the following food packaging materials where the resulting packages may be used to hold all types of food at temperatures up to 100 deg. C : (1) low density polyethylene (LDPE) that is at least 40 microns thick; (2) polypropylene that is at least 20 microns thick; and (3) polyethylene terephthalate (PET) which is at least 12 microns thick.
- (14) Hazardous Air Pollutants, as defined in the U.S. Clean Air Act, may present a threat of adverse human health effects or adverse environmental effects
- (15) US Consumer Product Safety Improvement Act 2008, as amended August 2009
- (16) This programme may not be available in your area at this time. Consult your local HP adviser for details of availability.
- (17) See note 4
- (18) <http://www.green.ca.gov/EPP/Printing/PrintSvc.htm>
- (19) See note 16
- (20) See note 16
- (21) See note 3
- (22) See note 12
- (23) See note 13
- (24) See note 16

To learn more about HP Global Citizenship environmental efforts, please visit:
www.hp.com/go/ecosolutions

Customers may visit : <https://h21021.www2.hp.com/C4/Enviromental/default.aspx>

For further information, please contact HP via: <http://www.hp.com/hpinfo/globalcitizenship/environment/contactemail.html>

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