



HP Latex Printing Technologies

Overview

Designed with the environment in mind, HP Latex Printing Technologies offer print service providers (PSPs) a compelling new printing alternative for a wide variety of outdoor and indoor applications. Together, HP Latex Inks and HP Thermal Inkjet Technology provide durable, odorless prints⁽¹⁾; sharp, vivid image quality; application versatility; and high productivity – all of which enable PSPs to increase their print capacity and grow their businesses while reducing the total impact of printing on the environment.

Broad outdoor and indoor application versatility

HP Latex Inks deliver long-lasting, durable prints that withstand the elements while also providing sharp, vivid image quality that stands up to close inspection. The inks produce great results across a wide range of media – including most low-cost, uncoated solvent-compatible media – and eye-catching, consistent results with Original HP large-format media designed together with HP Latex Inks.

HP Latex Printing Technologies can produce a broad range of outdoor and indoor applications, from point-of-purchase displays, transit signage, wall murals and exhibition graphics to billboards, vehicle wraps and exterior event signage. This outdoor and indoor application versatility gives PSPs more possibilities to meet customer needs. Outdoor prints produced with HP Latex Inks achieve display permanence up to three years un laminated and are scratch, smudge and water resistant on a range of media.⁽²⁾

Print with the environment in mind

Water-based HP Latex Inks provide many of the benefits of solvent-ink technology without imposing the typical environmental, health and safety considerations. Odorless prints⁽¹⁾ produced with HP Latex Inks emit extremely low levels of VOCs (volatile organic compounds). There is no special ventilation required to meet occupational exposure limits and there are no requirements for air discharge permitting,⁽³⁾ facilitating an improved printing environment. In compliance with a number of industry-leading certifications, including Nordic Swan, HP Latex Inks do not produce ozone emissions during printing and contain no HAPs (hazardous air pollutants).⁽⁴⁾

High-speed, quality printing – reach new levels of productivity

HP Wide Scan Printing Technology makes it possible to develop new printing systems that can achieve breakthrough print speeds⁽⁵⁾ – outdoor quality prints at approximately 800 square feet/hour and indoor-quality prints at approximately 400 square feet/hour.⁽⁶⁾ And there's no manual daily maintenance required.⁽⁷⁾ When print service

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providers reach new levels of productivity, business picks up speed.

HP Wide Scan Printing Technology is scalable, high-speed technology. The combination of multiple 4.25-inch (108 mm) printheads and precision media advance control using the HP Optical Media Advance Sensor delivers new levels of productivity.

The sensor is a proprietary technology that provides precise and accurate motion control of media advance between print swaths. Improved accuracy minimizes or eliminates banding for high-speed, quality printing.

Key features and benefits

- Outdoor prints produced with HP Latex Inks achieve display permanence up to 3 years un laminated and up to 5 years laminated and are scratch, smudge and water resistant on a range of media – performance comparable to solvent-ink technology.⁽²⁾
- Indoor prints produced with HP Latex Inks achieve display permanence – in-window up to 5 years un laminated and up to 10 years laminated on a range of media.⁽⁸⁾
- HP Latex Inks together with HP Wide Scan Printheads produce a wide color gamut – comparable to solvent-ink technology – for sharp, vivid image quality. The HP Wide Scan Printhead design also makes it possible to produce high-quality output at fast print speeds, supporting an ink drop size as small as 12 picoliters.
- HP Latex Inks produce odorless prints,⁽¹⁾ providing the best of both worlds. Prints are durable enough for demanding applications such as outdoor display but they lack the noticeable odor that can limit indoor applications – a characteristic more typical of prints produced with solvent-ink technology.
- A proprietary new HP media surface-treatment technology – designed together with HP Latex Inks – produces a wide color gamut that makes it possible to achieve both durability and sharp, vivid image quality on materials that don't typically print well with solvent inks, such as woven High Density Polyethylene (HDPE) and Tyvek.
- HP Latex Inks achieve the optimum in high-quality, consistent performance on HP large-format media – designed together to work better together with HP Latex Inks. The variety of HP media includes both outdoor and indoor applications and ranges from low-cost, uncoated media to a variety of specialty options. HP large-format media also includes a range of recyclable substrates.⁽⁹⁾
- Non-hazardous HP Latex Inks are not classified as a hazardous material per transportation requirements, there are no hazard warning labels, and they are not considered hazardous waste.⁽¹⁰⁾ These inks are non-flammable and non-combustible.
- Designed to reduce the impact of printing on the environment – an innovative new ink cartridge design uses a recyclable cardboard container and reduces materials use.
- HP Wide Scan Printing Technology is scalable, high-speed technology enabled by an arrangement of several HP Wide Scan Printheads together with HP's proprietary Optical Media Advance Sensor. This combination delivers outdoor-quality prints at approximately 800 square feet/hour, indoor-quality prints at approximately 400 square feet/hour.⁽⁶⁾
- HP Wide Scan Printheads support a firing frequency of up to 24 KHz. Each HP

Wide Scan Printhead contains two colors of ink and 1,200 nozzles per inch or 10,560 nozzles per printhead for the precise, accurate placement of ink on the page at high-productivity print speeds.

- Unlike printing systems using solvent-based inks, HP printing systems using water-based HP Latex Inks and HP Wide Scan Printheads do not require daily manual maintenance of the printheads.⁽⁷⁾ Individual printheads are user replaceable, eliminating the down-time and expense of a service call. HP Latex Inks are formulated to maintain nozzle health to optimize printhead performance, ensuring the reliable operation critical for keeping workflows running smoothly.
- HP Latex Inks are completely cured inside the printer to form a durable film on the print medium. Prints come out of the printer ready to use, finish and prepare for shipment.
- HP designs quality and reliability into every innovation. Original HP Latex Inks, HP Wide Scan Printing Technology and Original HP large-format media are designed, engineered and tested together as a system to ensure the reliable operation critical for keeping workflows running smoothly.

Additional information

More information about HP's Graphic Arts portfolio is available at www.hp.com/go/graphicarts.

Pricing and availability

The first printers using HP Latex Printing Technologies will be announced at Drupa in May. Price and availability will be disclosed at that time.

⁽¹⁾ Printers using HP Latex Inks use internal heaters to dry and cure the latex polymer film. Some substrates may have inherent odor.

⁽²⁾ HP image permanence and scratch, smudge and water resistance estimates by HP Image Permanence Lab. Display permanence tested according to SAE J1960 using HP Latex and solvent inks on a range of media, including HP media; in a vertical display orientation in simulated nominal outdoor display conditions for select high and low climates, including exposure to direct sunlight and water; performance may vary as environmental conditions change. Scratch, smudge and water resistance tested using HP Latex and solvent inks on a wide range of HP media. Laminated display permanence using Neschen Solvoprint Performance Clear 80 laminate. Results may vary based on specific media performance.

⁽³⁾ Special ventilation is not required to meet U.S. OSHA requirements on occupational exposure to VOCs from HP Latex Inks. Ventilation equipment installation is at the discretion of the customer – no specific HP recommendation is intended. Typically no air discharge permitting required with inks that emit extremely low levels of VOCs. Customers should consult state and local requirements and regulations.

⁽⁴⁾ No ozone products expected based on ink composition and printing technology; HAPs per U.S. Environmental Protection Agency Method 311.

⁽⁵⁾ In the price/performance category for which printers based on HP Latex Printing Technologies are intended.

⁽⁶⁾ Outdoor-quality speed based on printing in 2-pass unidirectional print mode; indoor-quality speed based on printing in 4-pass unidirectional print mode.

⁽⁷⁾ Printers using HP Wide Scan Printing Technology employ fully-automatic printhead testing and maintenance systems.

⁽⁸⁾ Interior in-window display ratings by HP Image Permanence Lab on a range of media including HP media. HP in-window predictions based on test data under Xenon-Arc illuminant. Calculation assumes

6,000 Lux/12 hr day. Laminated display permanence using Neschen Solvoprint Performance Clear 80 laminate.

⁽⁹⁾ Recycling opportunities currently available only in limited areas. Customers should consult local recycling resources

⁽¹⁰⁾ HP Latex Inks are generally not considered hazardous waste. Customers should consult state and local requirements and regulations.

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