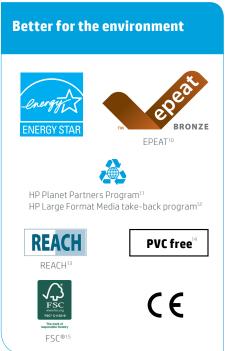


HP Latex Printing Technology

Environmental certifications and eco-labels overview







Representative of certifications and eco-labels applicable to HP Latex Technology¹⁶

HP Latex Technology delivers all the certifications that matter to your operators, your business, and the environment

Note: PSPs must seek certifications and eco-labels directly with certifying bodies¹⁷

End-to-end sustainability—a better approach

HP Latex Technology has fundamentally changed the environmental profile of signage printing. With an end-to-end approach, HP continues to set the standard for more sustainable large-format printing.

Recognized as one of the most sustainable companies in the world, ¹⁸ HP has the commitment and the scale to address current—as well as anticipated—environmental requirements, and to continue leading the change in signage printing. ¹⁹ By working closely with our partners and customers, and closely managing each component of the printing system (printer, inks, and printheads), we can design and deliver products that provide an end-to-end large-format printing solution that's better overall:

- Better for printing companies and print operators
- Better for the end-customer, enabling more differentiation
- Better for the environment

HP Latex Technology carries a broad set of credentials addressing the full spectrum of environmental concerns from ink chemistry and indoor air quality—for both print production and display—to lifecycle considerations that earn recognition for products as environmentally preferred overall. This document provides a description of each of the environmental certifications and eco-labels applicable to HP Latex Printing Technology.

Each certification and eco-label applies to specific products—in many cases in specific configurations or under specific circumstances—within the HP Latex Printing Technology portfolio. For the most current information on certifications and eco-labels for each HP Latex printer, reference product data sheets available at hp.com/go/latex. The certifications and eco-labels highlighted above apply as of January, 2016.

Better for printing companies and print operators

Using water-based inks eliminates exposure to inks with hazard warning labels and high solvent concentrations, and simplifies ventilation, storage, and transportation requirements.

Primary eco-label:

UL ECOLOGO®1

A prominent, voluntary certification issued by UL Environment and recognized worldwide. ECOLOGO® Certification to UL 2801 demonstrates that an ink meets a range of multi-attribute, lifecycle based criteria related to human health and environmental considerations. The standard criteria include testing for heavy metals content and solvents, requirements for low VOC content levels, as well as product recyclability. HP is the only large-format digital printing manufacturer to earn ECOLOGO® Certification for latex printing as of January, 2016. See ul.com/EL

Other eco-labels:

Japan Eco Mark²

Products certified by the Eco Mark Office of Japan Environment Association, as compared to similar products, demonstrate reduced environmental impacts. Applicable to select HP Latex ink cartridges. See ecomark.jp/english/

HP resources:

Material Safety Data Sheet (MSDS)—hazard statements and precautionary measures

As reported in the MSDS for HP Latex printing supplies, HP Latex Inks do not require any hazardous classification according to the European Regulation (EC) 1272/2008. HP Latex Inks are non-flammable and non-combustible, nickel free, and contain no HAPs. No special ventilation is required, and there are no special transport or storage requirements.

Better for the end-customer, enabling more differentiation

Deliver more applications and differentiate your business with odorless prints—ideal for sensitive indoor environments like schools and hospitals—that go where solvent and UV-curable can't.

Primary eco-labels:

UL GREENGUARD GOLD⁷

A prominent, voluntary certification issued by UL Environment and recognized worldwide. UL GREENGUARD GOLD Certification to UL 2818 demonstrates that products are certified to UL GREENGUARD standards for low chemical emissions into indoor air during product usage. The UL GREENGUARD GOLD Certification indicates that products—including inks, printed substrates, and the combination of both for indoor applications—contribute to healthier indoor environments by minimizing potential exposure to airborne chemicals. Different applications are certified by UL GREENGUARD GOLD, ranging from small indoor signage to full wallcoverings. HP Latex Technology is certified to the maximum level which includes wallcovering applications. See ul.com/gg

Other eco-labels:

Émissions dans l'air intérieur

Mandatory labeling for decoration products in France. Provides a statement on the level of emission of volatile substances in indoor air posing health risks if inhaled—on a scale from A+ (very low-emission) to C (high-emission). Wall decorations printed with HP Latex Inks and HP PVC-free Wall Paper are rated A+ according to Émissions dans l'air intérieur. See developpement-durable.gouv.fr

AgBB⁸

AgBB is a health-related evaluation of building products in Germany. Prints produced with HP Latex Inks on HP PVC-free Wall Paper meet AgBB criteria for health-related evaluation of VOC emissions of indoor building products. See umweltbundesamt.de/en/topics/health/commissions-working-groups/committee-for-health-related-evaluation-of-building

LEED⁹

USGBC's LEED program (United States Green Building Council's Leadership in Energy and Environmental Design) green building certification program recognizes best-in-class building strategies and practices. Based on low chemical emissions confirmed by UL GREENGUARD GOLD Certification, prints produced on HP PVC-free Durable Smooth Wall Paper using HP Latex Inks enable LEED credits in the low emitting category. See usqbc.org/leed

Other programs that help print service providers(PSPs)¹⁷ to better communicate their sustainability printing efforts and create new business opportunities:

Sustainable Green Printing (SGP) Partnership certification

The Sustainable Green Printing (SGP) Partnership is the leading comprehensive sustainability certifier of print facilities. SGP advocates best practices and innovation among print community stakeholders, aligning the printing industry and its customers in the pursuit of a more accountable, sustainable supply chain. Helps communicate your sustainable printing efforts, to create new business opportunities. See sgppartnership.org

HP Ecosolutions Trained Printing Company Program

The HP Ecosolutions Trained Printing Company Program for HP Latex Printing Technology users provides convenient web-based training to help PSPs gain knowledge and provide value to the growing number of clients looking for graphics solutions with reduced environmental impact. See hp.com/ecosolutions/tpc

Better for the environment

From printers designed to minimize the environmental impact of printing through manufacturing, use, and disposal to developing and sourcing sustainable substrates, HP is designing end-to-end sustainability into large-format signage printing.

HP Latex printers, primary eco-labels:

ENERGY STAR®

A voluntary United States (US) Environmental Protection Agency (EPA) program that certifies products for superior energy efficiency. The mark is broadly recognized, and furthermore, products sold to governments in the US, Taiwan, the EU, Australia/New Zealand, and Japan must be ENERGY STAR® certified. Select HP Latex printers are ENERGY STAR® certified.

EPEAT Bronze¹⁰

The Electronic Product Environmental Assessment Tool (EPEAT) is a voluntary certification that provides a comprehensive environmental rating that helps identify "greener" electronic components. Qualified products meet rigorous criteria across the complete product lifecycle—from materials restriction to packaging and air quality—in addition to the latest ENERGY STAR® standard. EPEAT registered where applicable and/or supported. Select HP Latex printers are EPEAT Bronze registered. See epeat.net for registration status and rating by country.

Product return and recycling program^{11, 12}

HP is committed to helping our customers recycle responsibly by providing many free and convenient ways to return and recycle used original HP ink cartridges, printheads, 11 and HP large format printing materials. 12 Program availability varies. See hp.com/recycle for details.

HP Latex printers, other eco-labels:

CE marking

Indicates a product's compliance with European Union (EU) legislation, satisfying applicable legislative requirements and enabling products to be sold throughout the European Economic Area (EEA). Criteria include RoHS, WEEE, REACH, and other environmental directives applicable to the printer and the printing materials. See ec.europa.eu

For substrates, primary eco-labels:

Recyclable prints12

The overall attribute of recyclability is a function of many factors that vary in relevance depending on the printed application (including media substrate) and the typical recycling process. HP Latex Inks have been designed with recyclability in mind, by avoiding heavy metals or other toxic components in the inks and HP large format substrates, and this requirement has been met for all HP Latex Inks and for specific HP large format printing materials.

PVC free14

PVC-free printing materials compatible with HP Latex Technology, such as HP PVC-free Wall Paper and HP PVC-free Durable Smooth Wall Paper,¹⁴ are easier to dispose of and recycle than most PVC-based substrates, providing a more environmentally conscious alternative. For PVC-free substrates and alternatives to PVC substrates compatible with HP Latex Technology, see hp.com/go/mediasolutionslocator

FSC®-certified papers15

The HP large format printing materials portfolio includes a wide range of FSC®-certified papers. These papers carry the Forest Stewardship Council® (FSC) Mix label, signifying that these media support the development of responsible forest management worldwide. **FSC® Chain of Custody certification** enables PSPs to promote finished prints as FSC® certified, allowing consumers to identify and choose products that support the development of responsible forest management worldwide. PSPs must seek certifications directly with FSC. See fsc.org

REACH13

(Registration, Evaluation, Authorization, and Restriction of Chemicals) is a regulation of the European Union, adopted to improve the protection of human health and the environment from risks that can be posed by chemicals. Select HP large format printing materials are REACH compliant. As required by REACH, HP makes a declaration regarding substances in HP large format printing materials listed as SVHC (155) per Annex XIV of the EU REACH directive published as of June 16, 2014 in concentrations exceeding 0.1%. To determine the status of SVHC in HP products, see the HP REACH Declaration published at HP Printing Products and Consumables Supplies

For more details, visit hp.com/go/environment

considerations (see ul.com/EL).

2HP 831 Latex Ink Cartridges, certification number 14142007, certified by the Eco Mark Office of Japan Environment Association.

Nickel free demonstrated according to testing conducted for HP Latex Inks to achieve UL ECOLOGO® Certification. UL ECOLOGO® Certification to UL 2801 demonstrates that an ink meets a range of multi-attribute, lifecycle based criteria related to human health and environmental considerations (see ul.com/EL).

⁷Applicable to HP Latex lnks. UL GREENGUARD GOLD Certification to UL 2818 demonstrates that products are certified to UL's GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit ul.com/qq or greenguard.org.

usage. For more information, visit ul.com/gg or greenguard.org.

*HP WallArt printed on HP PVC-free Wall Paper and other prints on HP PVC-free Wall Paper printed with HP Latex Inks meet AgBB criteria for health-related evaluation of VOC emissions of indoor building products, see umweltbundesamt.de/en/topics/health/commissions-working-groups/committee-for-health-related-evaluation-of-building.

*To obtain US LEED credits based on FSC® certification, the builder must purchase HP PVC-free Durable Smooth Wall Paper printed with HP Latex Inks from an FSC Chain of Custody certified print service

9 To obtain US LEED credits based on FSC® certification, the builder must purchase HP PVC-free Durable Smooth Wall Paper printed with HP Latex Inks from an FSC Chain of Custody certified print service provider. To obtain LEED credits based on UL GREENGUARD GOLD Certification, HP PVC-free Durable Smooth Wall Paper printed with HP Latex Inks must be part of a wall system in which all components are UL GREENGUARD GOLD Certified.

¹⁰Applicable to select HP Latex printers. EPEAT registered where applicable/supported. See <u>epeat.net</u> for registration status by country.

¹¹ Printing supplies eligible for recycling vary by printer. Visit hp.com/recycle to see how to participate and for HP Planet Partners program availability; program may not be available in your area. Where this program is not available, and for other consumables not included in the program, consult your local waste authorities on appropriate disposal.

¹²HP Large Format Media take-back program availability varies. Some recyclable HP papers can be recycled through commonly available recycling programs. Recycling programs may not exist in your area. See HPLFMedia.com/hp/ecosolutions for details.

13 Select HP large format printing materials are REACH compliant. These products do not contain substances listed as SVHC (155) per Annex XIV of the EU REACH directive published as of June 16, 2014 in concentrations exceeding 0.1%. To determine the status of SVHC in HP products, see the HP REACH Declaration published at HP Printing Products and Consumable Supplies. Logo source: Copyright European Chemicals Agency.

16 HP PVC-free Wall Paper and HP PVC-free Durable Smooth Wall Paper. Chemical analysis demonstrated elemental chlorine to be at or below 200 ppm. Presence of chlorine is attributed to residual chlorine used in paper-making process, and not due to the presence of PVC.

¹⁵ Applicable to select HP large format printing materials. BMG trademark license code FSC®-C115319, see <u>fsc.org</u>. HP trademark license code FSC®-C017543, see <u>fsc.org</u>. Not all FSC®-certified products are available in all regions. For information about HP large format printing materials, please visit <u>HPLFMedia.com</u>.

¹6 Certification and eco-label chart is for comparison only. Actual certifications and criteria are subject to change without notice. All trademarks are property of the owner and cannot be repurposed without the

expressed approval of the owner.

Note: Print shops/print service providers must seek certifications and eco-labels directly with certifying bodies. HP does not imply or grant certification or eco-labels to print shops/PSPs nor does it support individual customer processing of such certifications.

individual customer processing of such certain cations.

Based on a sustainability awards and recognition earned by HP as of January, 2016 including "Corporate Knights 2016 Global 100 Most Sustainable Corporations." For more information on HP and sustainability, see https://person.org/be/environment.

19 Per internal HP analysis for all signage market segments in November, 2015 based on the large-format printing market share report "IDC Quarterly LFP Tracker, Final Historical 3Q15, November, 2015."

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¹Applicable to HP Latex Inks. UL ECOLOGO® Certification to UL 2801 demonstrates that an ink meets a range of multi-attribute, lifecycle based criteria related to human health and environmental considerations (see ul.com/FI).

³ Water-based HP Latex inks are not classified as flammable or combustible liquids under the USDOT or international transportation regulations. Testing per the Pensky-Martens Closed Cup method demonstrated flash point greater than 110° C.

⁴HP Latex Inks were tested for Hazardous Air Pollutants, as defined in the Clean Air Act, per U.S. Environmental Protection Agency Method 311 (testing conducted in 2013) and none were detected.

⁵Applicable to HP Latex printers. Special ventilation equipment (air filtration) is not required to meet U.S. OSHA requirements. Special ventilation equipment installation is at the discretion of the customer—see the Site Preparation Guide for details. Customers should consult state and local requirements and regulations.