

## Which printing technology helps you meet your sustainability goals best?



More and more, sustainability is becoming an important factor in choosing a printing technology. European goals regarding the reduction of CO2 emission, to help fight climate change, will affect the printing industry in the long run. Also, customer demand for sustainable solutions is increasing. Innovation and new technologies make current printers more eco-friendly than in the past. However, there are differences between print technologies regarding their level of sustainability.

We compared and tested UV against Latex printing in several areas\*. Which print technology is the most sustainable choice and meets your sustainability goals?

\*Numbers in this infographic are based on tests done internally at Mimaki Engineering Japan

### UV printing vs Latex printing

#### CO2 emission

**Low CO2 Emission**  
UV printing uses

**low CO2 emission technology**, due to low energy consumption and longer lasting printheads (preventing CO2 emissions during recycling / destruction of thermal inks).

**High CO2 Emission**  
Latex printing is

**10x** higher in **CO2 production** compared to UV printing.

#### Energy consumption

**Low energy consumption**  
UV inks, when exposed to UV light, dry immediately.

**There is no drying heater required**, resulting in low energy consumption.

UV printing consumes approximately **6X less** energy compared to Latex printing.

**High energy consumption**  
Latex printing requires pre-print and post-print heaters to cure the media. This results in a much higher energy consumption compared to UV printing.

The heating process also makes Latex printing a much slower process. It takes more time before the final print is ready.

#### Ink

**Low ink consumption**  
Compared to Latex printing:

- 3X less** ink consumed
- 2X less** white ink consumed
- 2X faster** when using white ink

The ink price is also lower.

**Low wastage of inks**  
UV printing consumes much less ink during flushing (maintenance cycle) than other printing solutions.

**17% less** compared to Latex printing.

**High ink consumption**  
Latex printing has a high ink consumption (low ink yield).

**High wastage of inks**  
Latex wastes away a lot of ink while flushing between print jobs. Ink waste is bad for the environment and leads to unnecessary higher ink costs.

#### Wastage of consumables

**Low wastage of consumables**  
UV Piezo printheads have long durability.

The UV Piezo printheads prevent plastic wastage and CO2 emissions due to the recycling / destruction of thermal inks.

The printheads also provide a **stable colour output** and there is **no need for frequent re-calibration**.

**High wastage of consumables**  
Latex printheads are a consumable to be replaced after max. of 6L of ink.

**12 printheads** need to be replaced in 1 year

Latex printing needs frequent re-calibration.

#### Health and environment

**Green credentials**  
During the UV curing process, any harmful substances from the liquid state of the UV ink are directly converted into the solid structure and become **completely harmless and safe**.

Mimaki UV-LED inks are GREENGUARD Gold certified for **safe indoor use** (even in healthcare and school environments).

The LED (light-emitting diode) light is safe since it does not radiate short wavelengths that generate ozone.

**Green credentials**  
Latex ink is made up of **70% water**

Therefore, it is considered safer for the environment as well.

Mimaki Latex inks are also GREENGUARD Gold certified for **safe indoor use** (even in healthcare and school environments).

#### Choice of substrates

**Large choice of substrates**

**1 printer** can do the job of two.

UV printing is a very flexible and versatile printing technique that provides a **much wider choice of materials** to print on:

- Coated and non-coated substrates.
- Fabric, metallic foil, heat-sensitive media, and more.
- Rigid media (UV flatbed printing) such as acrylics, wood, metal, glass, and foam board.

**Limited choice of substrates**  
Latex ink is waterproof and applies to various media such as uncoated vinyl and PVC.

However, the heat involved in the Latex printing process **limits the range of media** on which you can print.

You need a second printer to print on those materials a Latex printer cannot print on.

**2 printers** = more power consumption and a higher CO2 emission.

### UV printing: affordable, efficient, and sustainable printing

**Meet our latest UJV100-160 LED-UV printer**  
The highly competitive UJV100-160 offers an enormous choice of print media, with high quality printing at low running costs:

- Cost-effective advanced UV technology.
- Print on a wide range of materials, including backlit, metallic foil, fabric and more.
- Instant-curing ink - deliver your order faster than ever before!
- Automated perfect feed alignment with the new Dot Adjustment System (DAS).

Our Mimaki UV printers are a sustainable option for your business, now and in the long run, offering many other advantages as well.

**Mimaki UJV100-160 EDP Award Winner 2020 for 'Best Roll-to-Roll printer up to 170cm'**

Click on the buttons below to learn more.

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