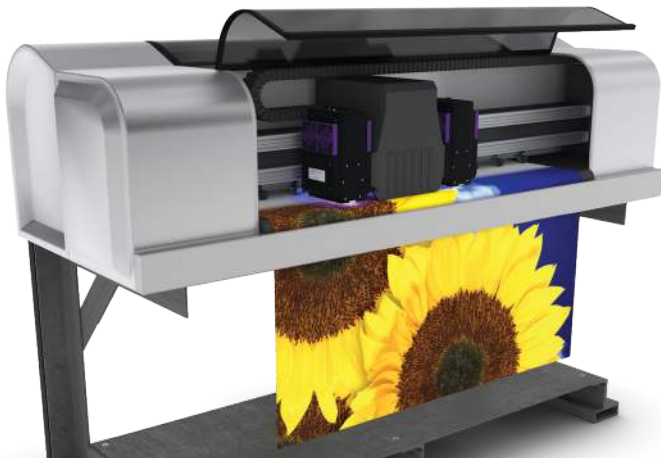


# Printing Overview

## LED Ink Curing Solutions



The UV curing process has been in use in the printing industry for more than thirty years. LED curing technology is now rapidly growing inside the UV printing market with compelling advantages of better economics, system capabilities, and environmental benefits. Phoseon's UV LED curing technology is ideal for the UV curing of inks in digital inkjet, screen, flexographic and other printing processes.

### Advanced Capabilities

Heat-sensitive,  
Thin Substrates

Deep, Through Curing

Controlled Curing Intensity

### Operating Economics

Energy Efficient

Long Lifetime &  
Low Maintenance

Low Operating Temperatures

### Environmental Advantages

Mercury & Ozone Free

Safe UV-A Wavelength

Workplace Safety

## UV LED Curing Technology



UV LED curing solutions are being rapidly adopted for curing adhesives in factory assembly lines throughout the world. Low operating costs, long lifetime, and low maintenance are just a few of the reasons. Additionally, small electronic components may be sensitive to heat and UV LED overcomes those issues by being a 'cool' light source.

LED curing technology is rapidly becoming the new standard for UV printing for both full cure and pinning applications. The narrow UVA output provides the highest curing efficiency while also providing a cooler, safer, and more stable output, allowing end users to print on a wider variety of materials with increased yield and reduced operating costs.

## Printing Applications

Phoseon's UV LED curing technology is ideal for the UV curing of inks in a variety of printing applications. Here are some examples:

### Labels & Packaging



UV LED curing systems are ideal for label and narrow web printers, enabling end users to print high quality material at maximum speeds. UV LED curing for label printing shows measurable advantages in higher productivity, lower energy usage, reduced heat load for thinner substrates, smaller footprints and clear environmental benefits.

### Posters & Signs



The sign making industry has led the change for improved turnaround time, higher quality and more economical solutions for wide format printers in this market. UV LED curing technology enables output on a wider media mix and an extended range of applications while at the same time allowing a low total cost of ownership.

### 3D Objects



During the process of 3D printing, each layer is cured immediately after it is jetted, producing fully cured models, without post-curing. UV LED technology is ideal for 3D curing due to its small size, tight process control and consistent UV output over time.

### Bottle Printing



UV LED technology is utilized for bottle labeling machines and systems designed for direct printing on cylindrical containers. The small size of the light sources makes them ideal for machines with limited space. The reduced heat load also enables the use of thinner and more heat sensitive materials.

### Coding & Marking



The compact UV LED curing lamps offer advanced capability and energy savings for coding and marking applications. The LEDs are instant on/off, so only switches on when ink curing has to occur. This saves energy and increases the life of the unit even further. UV LED curing is the ideal choice for high resolution.