

Coatings Overview

LED Curing Solutions



UV LED curing solutions are being utilized in the coating industry because they offer lower operating costs, enhanced system capabilities due to being a solid-state device, and environmental benefits of safer workplace environment and no hazardous materials. Machines can be made more compact due to small form factor; speed can be increased due to consistent UV output; and the diffuse nature of UV LED light can be used to more effectively cure shaped surfaces which previously required multiple lamps at various angles.

Sustainability

Operating Economics

Increased Productivity

No mercury disposal

Safer workplace

No ozone

Up to 90% energy savings

Low maintenance

Longer lifetime

Low or no heat on components

Tighter process control

Higher Yields

UV LED Curing Technology



UV curing technology is utilized for drying coatings and other UV sensitive materials through polymerization. UV LED improves on that existing process by enabling thinner, heat-sensitive substrates while reducing harmful byproducts such as ozone, and improving workplace safety. Additionally, UV LEDs can be turned on and off instantly, and utilize input power efficiently to enable lower operation costs over the application lifetime.

Coating Applications

UV LED curing products are utilized in a wide range of industrial coating applications due to their scalability, low heat generation and high-reliability. Application areas in UV coating include: wood and vinyl, automotive, musical instruments, fixtures and many others.



Wood

UV LED curing technology is ideally suited for the wood coatings industry for applications such as edge coating, roller coating and digital printing. UV LED technology drastically reduces energy consumption and significantly reduces work-piece surface temperature.



Electronics

UV LED curing technology is ideally suited for electronic assembly applications. The unique combination of high-energy UV LED sources with the appropriate coatings provides increased productivity, while also providing the ability to cure heat sensitive materials.



Automotive

UV LED curing solutions are being utilized by the automotive industry for paint and coating touch-ups, window and sunroof seals, plus a wide variety of other applications.



Industrial

Coatings for industrial process have unique characteristics. They are typically delivered in large volume with a need for process consistency. UV LED curing lamps are an ideal fit for these requirements as they can be built in various configurations (lengths, widths, irradiance intensity) and well as monitored through industry-standard means to ensure consistency.