

UV LED Curing for Powder Coating

For Heat-sensitive Plastics & Composites Applications

Across all industries, the use of plastics and composites is rapidly replacing metal materials because they are durable, light weight and, in some instances, easier to produce. Like metal products, plastics and composites require a decorative and functional coating and because of their inherent heat sensitivity care must be taken when selecting a liquid paint or powder coating finish process. Many standard coating practices either require too much heat, are less robust, environmentally unfriendly or are difficult to use and store. By using an UV LED-cured powder coating it is possible to apply, flow and cure powder coating without damaging or deforming these heat sensitive substrates, while taking advantage of the robustness of UV. Continuing advancements in UV LED increase the already significant process and productivity advantages of UV cured powder coatings.

UV LED Curing Benefits:

- ✦ Higher energy operating efficiency compared to UV arc and UV medium pressure mercury lamps
- ✦ Longer lamp lifespan > 40,000 operating hours
- ✦ No heat transfer at cure
- ✦ Targeted UV curing using robotics



Photo provided by Keyland Polymer, UVMax™ powder coating.



UV LED Curing Applications:

Materials: MDF, Plastics, Composites, Carbon Fiber, Metal

Industries: Aerospace, Automotive, Commercial Industrial, Construction, Commercial and Residential Furniture, Sports and Recreation

Opportunities: Sports Equipment, Airplane Interiors, Automotive (Underpinnings, Interiors, and Rims), Industrial Doors, Office Furniture, Kitchen and Bathroom Cabinets

UV LED Curing Solutions

Phoseon UV LED curing solutions offer the widest selection and are the most reliable on the market. Starting from 2002 in Portland, Oregon, Phoseon Technology created the first LED's for Industrial Curing applications. With over 300 patents worldwide, Phoseon has earned the reputation for technological innovation, quality and reliability. The global Phoseon team of direct sales and field engineers welcome the opportunity to work with anyone who is interested in determining how LED can relieve pain in various manufacturing processes.

FireJet™ ONE Light Source



- Scalable design for edge-to-edge coverage
- Small form factor
- Cooling: Air-cooled
- Power: 20W/cm²
- TargetCure™ & WhisperCure™ technologies
- High irradiance
- Instant On/Off control/cure
- 20,000+ curing hours

FireLine™ FL400 Light Source



- Emitting window sizes: 125, 150, 225, 250, 300x20mm
- Cooling: Water-cooled
- Power: 24W/cm²
- Scalable
- Digital/analog control
- Instant On/Off control/cure
- 20,000+ curing hours

FireJet™ FJ240 Light Source



- Scalable design for edge-to-edge coverage
- Cooling: Air-cooled
- Power: 16W/cm²
- TargetCure™ & WhisperCure™ technologies
- High irradiance
- Digital/analog control
- Instant On/Off control/cure
- 20,000+ curing hours



Made in the
U.S.A.

Contact Phoseon Today!
Demo Equipment Available Upon Request.