



MOLDED ULTRAVIOLET (UV) OPTICS



Can help
you gain a

50% Increase in
Irradiance

30% Improvement
in Uniformity

Our molded UV glass optics enable the creation of high-performing UV curing systems with flexible working distances and the ability to cure both flat and complex 3D surfaces. As demonstrated in application research, increases up to 50% in peak irradiance and 30% in uniformity are achievable. Utilize a molded UV glass optic to improve energy efficiency, increase power, and cure quality in your UV LED device.





HIGH-PERFORMANCE MOLDED OPTICS ENABLE VERSATILE, EFFICIENT CURING SYSTEMS

INCREASE IRRADIANCE AND WORKING DISTANCE

Molded UV glass optics increase the energy density hitting the cure surface and enable greater flexibility in cure system working distances. Maximizing the irradiance means you can cure complex 3D surfaces and ensure that the energy is evenly distributed onto the surface.

CONTROL BEAM ANGLE AND IRRADIANCE PROFILE

UV optics can be molded into complex, freeform shapes providing ultimate light control. Specific beam angles that produce the necessary irradiance pattern or profile for a complete cure can be achieved. Combining an optic with your UV LED array will help ensure flawless cure quality.

INCREASE ENERGY DENSITY

An increase in energy density will enhance the performance of the entire UV curing process. With greater energy reaching the surface, you can increase line speeds and shorten processing times. UV optics improve performance to ensure that even at faster line speeds, you still achieve a uniform, high quality cure.

CREATE EFFICIENT OPTICAL SYSTEMS

The use of an optic can allow you to reduce the number of UV LEDs or to reduce the drive current to the UV LEDs. Both of these options give you the intensity required, while reducing the need for costly cooling systems. Optics can be used to improve energy efficiency and decrease the thermal management requirements of your UV LED device.



CUSTOMIZABLE OPTIC DESIGNS FOR DEMANDING UV LED APPLICATIONS

We offer molded UV glass optic designs that are customizable for your application. There are five recommended designs with dimensions that can be altered to fit both your fixture and optical performance requirements.



TIR OPTIC

Total Internal Reflection (TIR) Optics increase peak irradiance and energy density for faster cure speeds and enhanced quality of cure.



FREEFORM OPTIC

Freeform Optics improve uniformity and enhance cure quality by utilizing design flexibility due to freeform surfaces.



MULTI-ROD OPTIC

Multi-Rod Optics increase peak irradiance for complex cures by mixing multiple wavelengths and controlling the beam angle.



PRISMATIC OPTIC

Prismatic Optics decrease the divergent beam angle to increase peak irradiance and energy density thus enhancing cure quality in line cure applications.



UNIFORMITY OPTIC

Uniformity Optics increase peak irradiance and uniformity while maintaining a slim optic profile perfect for small fixture designs.

Don't see an optic that fits your application?

Kopp also specializes in developing proprietary, unique solutions.



HIGH-PERFORMANCE CUSTOM GLASS

for mission-critical applications

MATERIAL SCIENCE EXPERTISE

Founded over 90 years ago, Kopp Glass began with a deep understanding of glass chemistry and how it can be used to innovate. Today, our portfolio includes more than 200 different glasses. Depending on your need, our engineers and scientists are also able to create new compositions to meet tough design challenges.

APPLICATIONS ENGINEERING EXPERTISE

We refine product designs alongside customers to help them reduce costs and increase yields. While our solutions are crafted to perform in some of the harshest environments on Earth, they're also designed to help the performance of our customers' bottom lines.

RESPONSIVENESS

Kopp Glass is a small manufacturer, but the design and production challenges we face every working day are huge. Our customers see the difference in how we respond to

WORK WITH US

www.koppglass.com



Year Founded 1926

Ownership Closely Held

Location Pittsburgh, PA USA

No. of Employees 110

Mfg. Sq. Ft. 127,000

Quality System ISO: 9001:2015