Phoseon®

VERICURE™

Wide Format
UV LED Curing System

excelitas®

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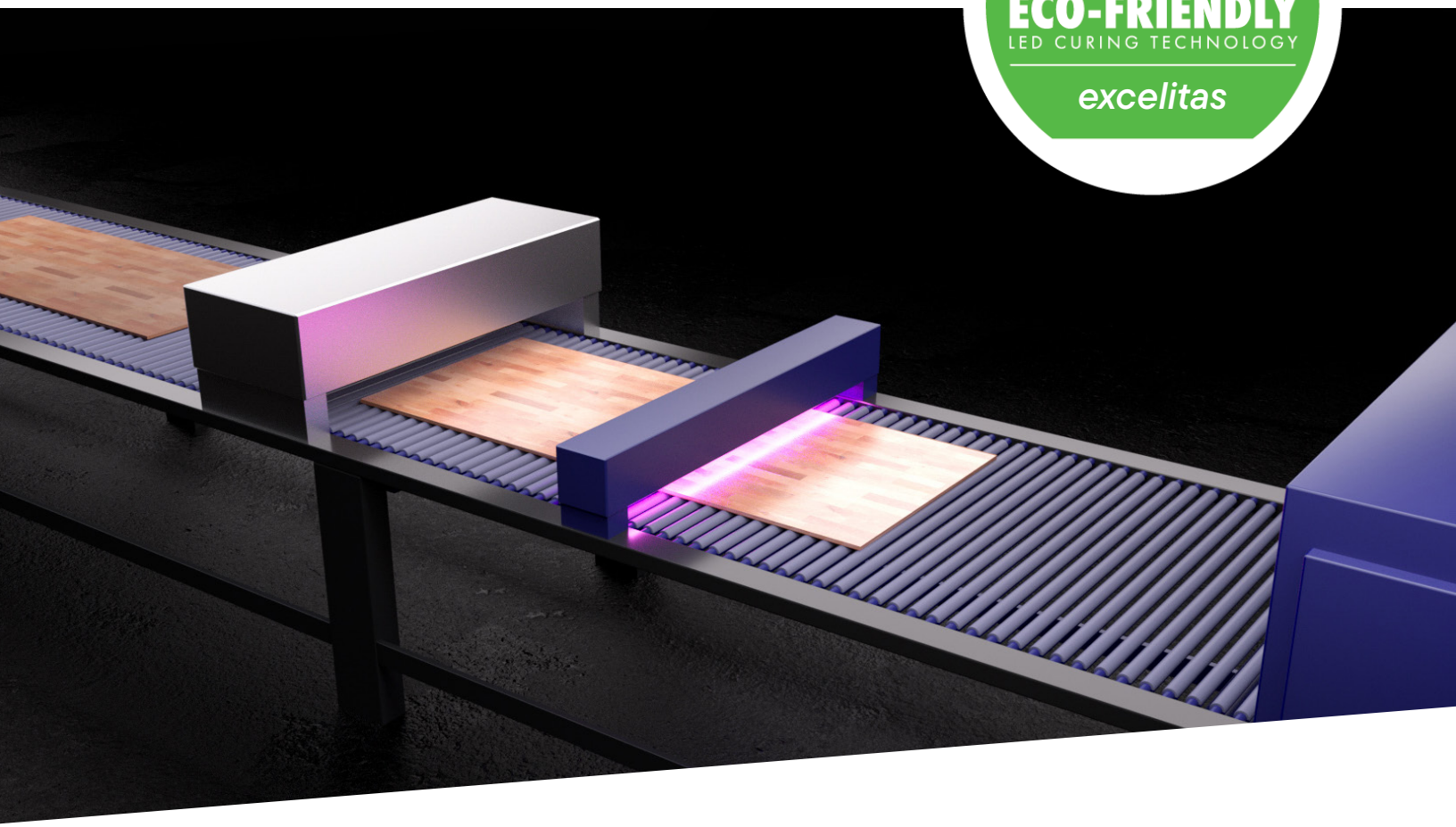
ECO-FRIENDLY
LED CURING TECHNOLOGY
excelitas



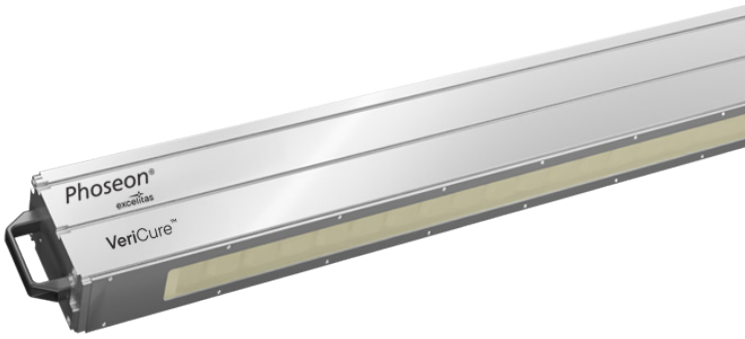
Modernize Your Industry Coating Process

PHOSEON® VERICURE™ WIDE FORMAT WATER-COOLED UV LED SYSTEM

VeriCure™ curing systems represent a significant advancement in UV industrial coating technology. Providing unmatched performance and efficiency, the latest Phoseon® UV LED system from Excelitas addresses the demands for improved throughput and environmental sustainability. Our patented Semiconductor Light Matrix (SLM)™ technology was developed with meticulous design engineering of LEDs, arrays, optics, and cooling architecture to deliver optimum UV LED curing performance.

Unmatched Power and Dose Performance

With its high-dose capabilities designed to support increased curing performance, the VeriCure system unlocks new possibilities for high-performance industrial coating applications. The unmatched power delivered by the VeriCure system provides confidence that a complete and reliable cure can be consistently achieved, even as coating buildup and dust accumulation may cause unexpected reductions in UV output over time.



Engineered for Repeatability, Flexibility, and Reliability

Continuing with a long-standing history of innovation, Excelitas' patented technologies deliver unmatched UV LED curing system performance and reliability. The unique design of the VeriCure system enables high dose capabilities while ensuring long LED lifetimes are maintained. Innovative SLM control technology allows uniformity to be optimized during operation, in real time, without the need to take the UV LED source offline. Additionally, this unique technology allows for the UV emitting area to be adjusted if process width requirements change, and for discrete LED module intensity levels to be set to optimize curing of irregular substrate contours.

Rugged Design for Demanding Industrial Applications

The VeriCure system is designed to stand up to the harsh conditions typical of industrial applications. The rugged extruded aluminum lamp body provides the ultimate protection, and the integrated T-Slots simplify integration. The lamp body is designed and rated to IP66 standards, ensuring protection against dust and water ingress for high reliability in demanding industrial environments.

The innovative cooling design (patent pending) provides lower and consistent LED temperatures for optimal UV output stability and extended LED lifetimes. Although not required for most applications, additional cooling can also be provided by connecting a flow of clean dry air to the system for cases where the cure substrate may be highly reflective. The primary glass covering the SLMs can also be further protected by an optional protective glass window that can be cleaned or replaced to reduce overall maintenance costs and ensure maximum system uptime.

LED and PCB temperatures inside the enclosure are monitored by up to 38 thermistors, and in the event of a fault, the system firmware proactively takes appropriate action to enhance system protection and prevent component damage. Over a dozen other fault monitoring parameters are also actively monitored to ensure proper and safe operation.

Environmental Sustainability

Companies are embracing environmental sustainability in an effort to protect the environment and achieve more efficient industrial processes. Excelitas LED solutions offer consistent and reliable power output, eliminate greenhouse gases, and remove mercury from an entire category of industrial processes. The benefits of using LED technology include:

- **No mercury! Mercury ban in manufacturing processes is growing globally.**
- **No greenhouse gases/ozone produced, no need for high-capacity air removal systems.**
- **Significantly reduced energy usage versus mercury UV lamps and high energy IR dryers.**

Light Source Overview

T-Slots

PLC Interface
Supported Protocols: OmniCure® AC Series communication protocol, Analog

Clean Dry Air Inlet*

Coolant Supply/Return
(directly impacts product performance)

Temperature: 20 to 35 °C (dependent on environmental conditions)

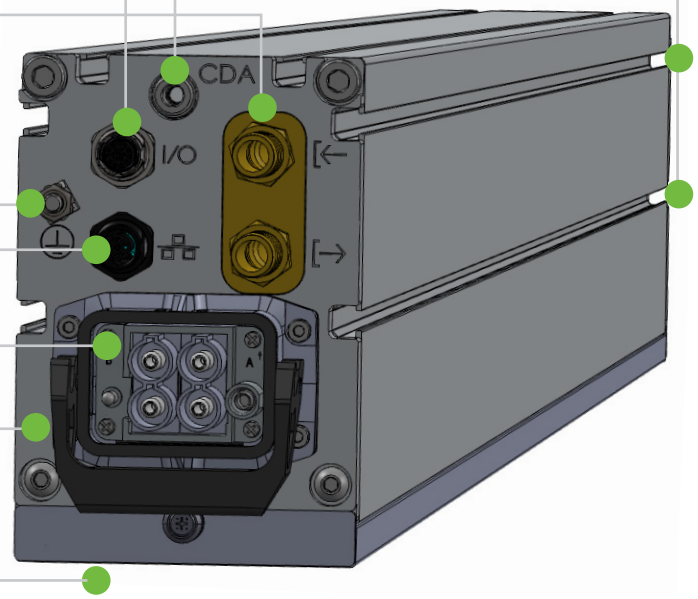
Water: Distilled required, with corrosion inhibitors. Refer to *28384 Water Cooling Requirements*

Earth Ground

Ethernet Connection
Supported Protocols: Modbus TCP/IP, Phoseon CLIP protocol

DC Input Power: 120±5 Vdc

IP66 Rated



Removable Secondary Glass**

Environment
Indoor use only
Temperature: 10 to 40 °C
Humidity: <80% non-condensing for temperatures up to 30 °C
Altitude: up to 3,000m
Storage Temperature: -20 to 85 °C

*not required under most conditions, optional use only
**extra cost option

PERFORMANCE & TECHNICAL SPECIFICATIONS

Model	750	900	1050	1200	1350
Length	1024	1174	1324	1474	1624
Emission Window	750 x 20	900 x 20	1050 x 20	1200 x 20	1350 x 20
Amperage/Power (+/-10%)	60A/7.2kW	72A/8.6kW	84A/10.1kW	96A/11.5kW	109A/13.1kW
Typical Dose	500 mJ/cm^2 (@50mm working distance, 50 m/min)				
Peak Irradiance	20 W/cm^2 (@window); 6 W/cm^2 (@30mm working distance)				
Wavelengths (nm)	365, 395, 405 (385 available on request)				
Expected LED Lifetime	>60,000h at L90				
Maximum Operating Temperature	40C				
Standard Cross Section (mm)	With Secondary Glass 147 W x 155 H (without 104 W x 147 H)				
Input Voltage (+/- 5 VDC)	120 VDC				

BENEFITS

Boost Productivity with high UV energy and dose

Reduce Operational Costs savings with up to 70% less energy consumption, reduced maintenance, and no bulb replacements

Drive Environmental Sustainability technology with no mercury or ozone production

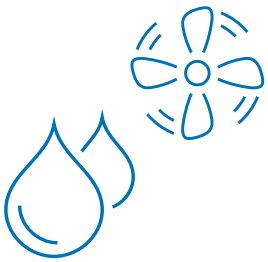
Improve Process Control with consistent UV output and exceptionally long LED lifetime

Enhance Product Quality with excellent adhesion, scratch and wear resistance, and chemical durability

QUALITY BY DESIGN

+ Comprehensive fault monitoring
+ Automatic protective system actions
+ Over 20 years UV LED experience
+ Rigorous lifetime testing programs
+ Longest lifetime in the industry

COOLING BY DESIGN



+ Innovative cooling design
+ Lower LED temperatures
+ Longer LED lifetime
+ Superior wavelength accuracy/stability

INNOVATION BY DESIGN

+ Over 100 years combined UV curing experience
+ Over 300 UV LED technology patents
+ UV LED-focused design teams

EFFICIENCY BY DESIGN

+ Up to 70% less energy consumption
+ Highest dose/fast line speeds
+ Higher uptimes (High LED lifetime, protective glass)

excelitas Enabling the future

For a complete listing of our global offices, visit www.excelitas.com/locations

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