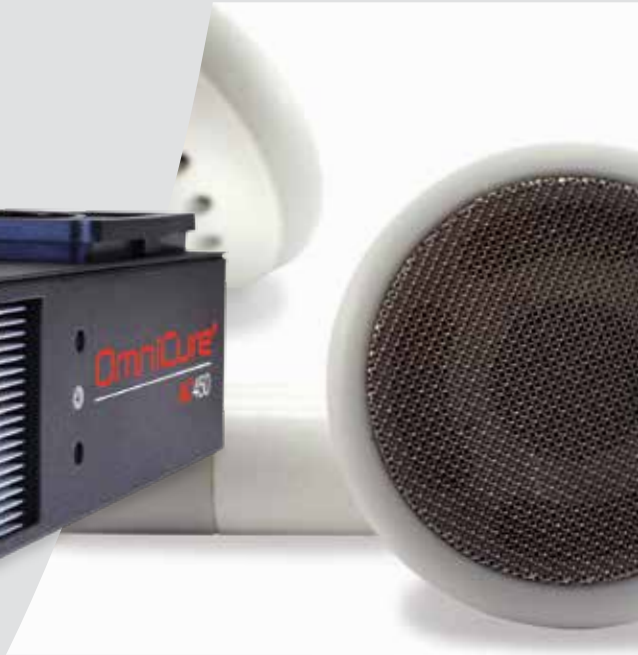
OmniCure®
UV Curing • In Control

OmniCure AC450/P and AC475/P

Small Area UV LED Curing Systems for Adhesives, Coatings and Inks



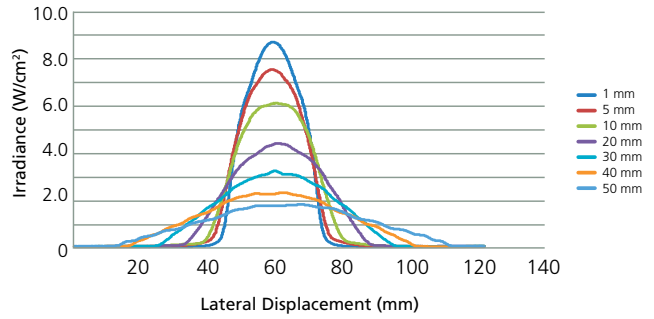
- Exceptional irradiance performance to accommodate different working distances
- Superior uniformity to maximize the addressable curing area
- Flexibility with control for repeatable curing results
- Compact, air-cooled LED design for ease of integration

EXCELITAS TECHNOLOGIES®

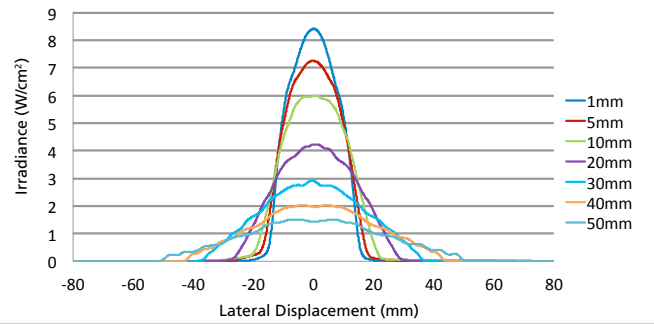
Exceptional Irradiance Performance

The OmniCure® AC450, AC450P, AC475 and AC475P utilize high emission LEDs which achieve over 8 W/cm² at the optics window. The systems include advanced front-end optics to provide high peak irradiance at long working distances with extended clearance of conveyed parts. This allows for easier curing, or the option of focusing the light at different working distances for adapting to a specific UV process.

Irradiance vs Working Distance for AC450 and AC475 – 395 nm



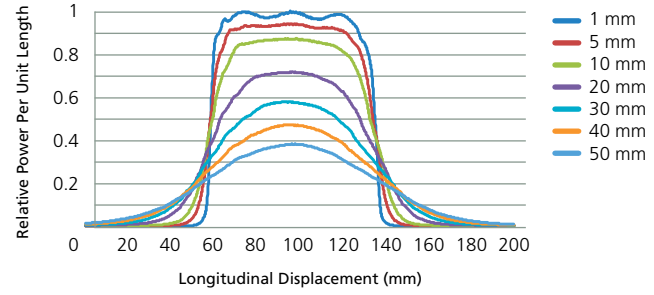
Irradiance vs Working Distance for AC450 and AC475 – 365 nm



Superior Uniformity

Utilizing Excelitas Technologies patented process for individually addressing each UV LED module output, the OmniCure AC450 and AC475 offers consistent results by ensuring high longitudinal uniformity over the entire 50 mm (2") to 75 mm (3") curing area. A uniform exposure area allows for curing of larger and/or multiple parts simultaneously. It also offers the ability to convert a static curing process to one where parts are being cured while in motion in order to increase throughput.

Uniformity at Working Distances for the AC475



All performance data is measured using spectrometer and are NIST traceable.

Flexibility with Control

Precise control of the UV irradiance level and time ensures that the correct dose of UV energy at the required wavelength is provided on every exposure for a repeatable curing process. Intelligent system monitoring and control ensures system reliability meets the demands for any application.

Ease of Integration

The air-cooled, compact LED head design eliminates the need for external cooling or ozone extraction while simplifying integration. The curing systems can also be mounted in any orientation, using different wavelengths for greatest flexibility. External mechanical and optical accessories are also available for use in similar applications.

Technical Specifications

		AC450		AC475	
LED Peak Wavelengths		365 nm ± 5 nm, 395 nm ± 5 nm			
Active Optical Area		50 x 25 mm		75 x 25 mm	
Typical Peak Irradiance (W/cm²)		365 nm	395 nm	365 nm	395 nm
Working Distance	1 mm	8.0	8.2	8.0	8.2
	10 mm	6.0	6.2	6.0	6.2
	20 mm	4.2	4.5	4.2	4.5
	30 mm	2.9	3.2	2.9	3.2
	40 mm	2.0	3.2	2.0	3.2
	50 mm	1.5	1.7	1.5	1.7
Optical Power*		87 W	90 W	130 W	135 W
Power Consumption*		330 W		480 W	
Longitudinal Uniformity*		Better than ± 10%			
Operating Voltage		48 V DC ± 2 V			
Dimensions (L x W x H)		110 x 68 x 190 mm			
Weight		1.1 kg (2.4 lbs)			
Cooling		Air			
Acoustic Noise		< 65 dBA, load adapting			
Life Expectancy		> 20,000 hours			
Automation		Integrated PLC controls for UV intensity and system alarms			
LED Warranty		2 years or 10,000 service hours			

*At 100% intensity setting.

Mechanical Drawings

Mechanical drawings are available on our website. To find out more about the OmniCure® AC Series UV LED curing solutions, please visit www.excelitas.com/omnicure

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