



MAKROLON® LED (POLYCARBONATE)

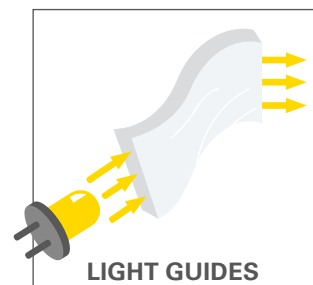
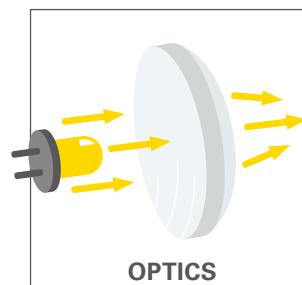
Let there be light!



ARRI LED spotlights for the entertainment industry
Provided by Covestro homepage

If you design or manufacture LED assemblies or tertiary optical accessories such as light guides, with Makrolon® LED you'll be offered a Polycarbonate product range for lenses (secondary optics) with exceptional purity to maximise light transmission under elevated service temperatures.

Besides the outstanding light transmission, Makrolon® LED products provide inherent flame retardancy and elongated lifetime for the lighting assembly. Makrolon® LED products are especially suitable for applications such as automotive headlamps as well as all types of outdoor and indoor lighting. Injection molding and extrusion grades are available.



Based on the exceptional Makrolon® LED Polycarbonate purity delivering maximum light transmission at elevated service temperatures, numerous applications in automotive lighting, high power lamps or robust streetlamps, can be realized. By integrating secondary optics, such as lenses, the LED is transformed into a powerful lighting unit.

Makrolon® LED: advantages at a glance

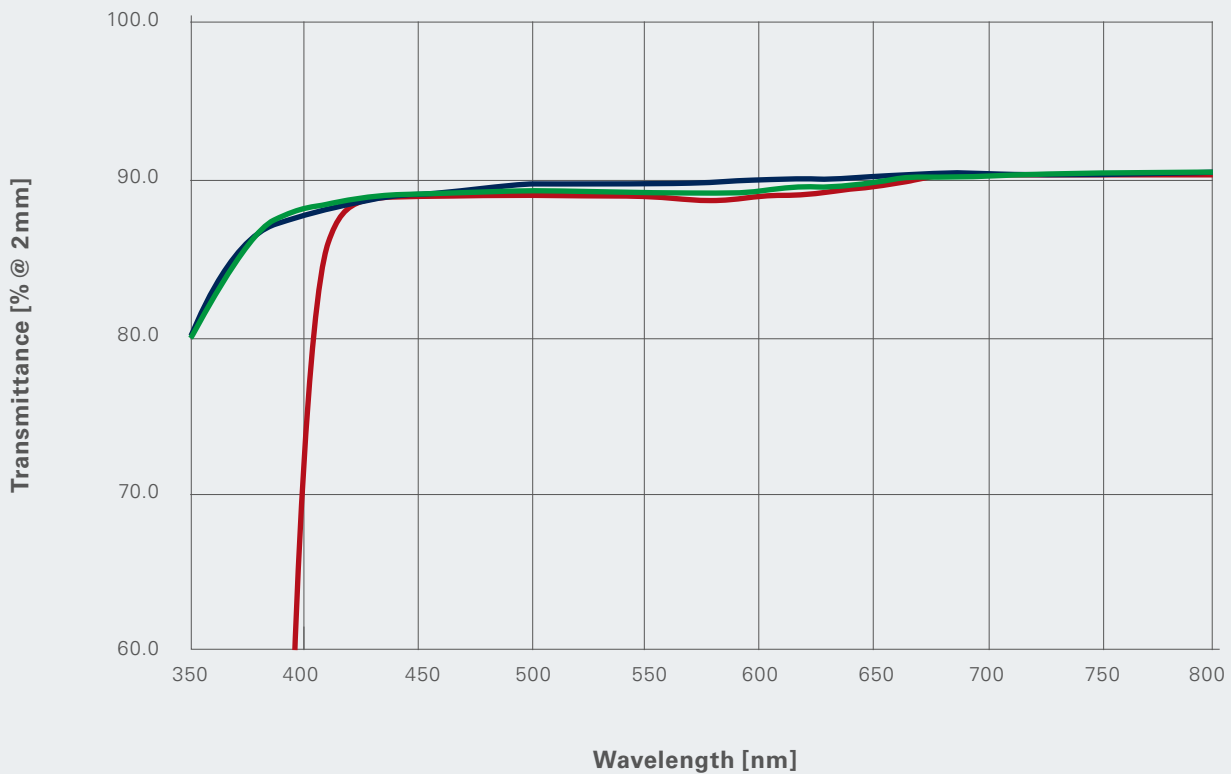
- Best in class Polycarbonate light transmission over a broad range of wavelengths
- Excellent long-term heat and high flux stability
- Inherently good flame resistance
- Much longer LED product life than other polymers for luminaire designs with high heat requirements
- High mechanical stability
- Higher flame retardance of specific grades (UL94 V-0 and/or 5VA)

Makrolon	Grade	Color	Color Description	MVR @ 300°C/1,2 kg [cm³/10 min]	Transmission @ 2mm [%]	Haze ISO 14782 @ 3 mm	RTI (Elec.) [°C]	UL 94	UV stabilized
LED	2245	000000	natural*	34	90	< 0,5	125	V-2 @ 0,75mm	no
LED	2245	550207	crystal clear	34	90	< 0,5	125	V-2 @ 0,75mm	no
LED	2247	550207	crystal clear	34	90	< 0,5	125	V-2 @ 0,75mm	yes
LED	5102	000000	natural*	34	90	< 0,5	125	V-2 @ 0,75mm	yes

* No color additives (highest purity)

Additional products and information are available on request.

Transmission curves



- Makrolon® LED2245 000000
highest transmittance but slightly yellowish appearance
- Makrolon® LED2245 550207
crystal clear color but slightly reduced transmittance
- Makrolon® LED2247 55020
crystal clear, high transmission, UV stabilization package

HEAD OFFICE

ALBIS PLASTIC GmbH
Mühlenhagen 35 · 20539 Hamburg
Tel.: +49 40 7 81 05-0 · Fax: +49 40 7 81 05-361
info@albis.com · www.albis.com

The information contained in this publication is based on our current knowledge and experience. However, due to the large number of factors that can influence our products when they are processed and used, it does not exempt processors from carrying out their own investigations and tests. Legally binding assurances of specific properties or of suitability for a specific purpose cannot be derived from our information. The recipient of our products is responsible for observing any applicable industrial rights as well as the existing laws and regulations.