



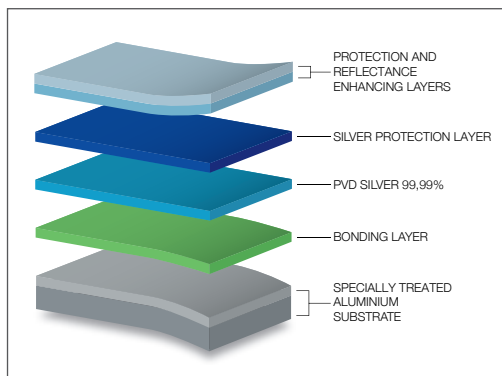
**Metal Core-PCB vegaLED** is an MC-PCB (Metal Core - Printed Circuit Board) material developed for high power LEDs. To achieve an optimum heat management and increase the light output of the whole LED luminaire, it is advantageous to mount the LED chip on an aluminium based PCB coated with a highly reflective surface.

**vegaLED** fulfils all the requirements of an ideal modern MC-PCB substrate:

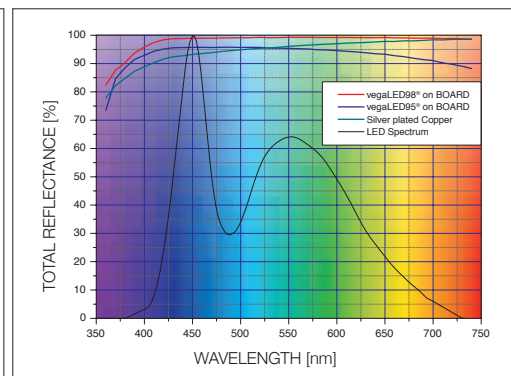
- ▼ Extremely high total reflectance through PVD treatment
- ▼ High spectral uniformity
- ▼ High optical performance
- ▼ High environmental stability
- ▼ Optimum heat management
- ▼ Various thicknesses

**Types of PVD layer** ▼ **vegaLED98** (VLB198), with over 98% reflectivity across the full output spectral range for all types of LED, is the ultimate aluminium lighting reflector, greatly increasing the light performance of a LED luminaire, compared to a silver plated copper PCB.

▼ **vegaLED95** (VLB195) with 95% reflectivity is an optimised solution for outdoor lighting where more aggressive conditions are encountered.



vegaLED98® on BOARD PVD multilayer structure



Spectral data graph

**Spectral uniformity** By incorporating silver in its highly sophisticated PVD multilayer structure, **vegaLED** products reflect light almost equally across all the visible wavelengths resulting in excellent colour rendition. The characteristic faint yellow hue reflectance seen at a shallow angle, helps to give a slightly warmer light, while maintaining the greatest efficiency.



### Technical data

Product	Alloy UNI-EN 573-3	Total reflectance [%] DIN 5036-3	Specular reflectance [%] ISO 2813 / ASTM D-253	Thickness range [mm]	Temper	Heat conductivity [W/mK]	Spectral uniformity	Electrical isolation	Efficiency class EN 16268
VLB195	1090	≥ 95	> 90	0.75 - 1.00	H18	220	yes	on demand	A
VLB198	1090	≥ 98	> 93	0.75 - 1.00	H18	220	yes	on demand	A+

Higher thicknesses and alloys on request



Sample of VLB198 1.00mm



Sample of MC - PCB

### Environmental tests

	Temperature resistance	Humidity test	Stability against SO <sub>2</sub>	Mixed gas test
Standard	IESNA LM-80	EN ISO 6270-2	DIN EN 6988	DIN EN 60068-2-60
VLB195	ΔTR < 5%	very good	ΔTR < 1%	ΔTR < 1%
VLB198	ΔTR < 5%	very good	ΔTR < 1%	ΔTR < 1%



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