

Product Information

PLEXIGLAS® LED 0V606

Product Profile:

PLEXIGLAS® LED white 0V606 is characterized by diffuse scattering of light, based on PLEXIGLAS® 7N, PLEXIGLAS® 7H, PLEXIGLAS® 8N or PLEXIGLAS® Resist zk6BR.

In addition to the known attributes of PLEXIGLAS® base molding compound

- very good weather durability
- high hardness of the surface and scratch resistance

has PLEXIGLAS® LED white 0V606 the specific nature of a very even light distribution and high transmission values when backlit with intense LED – this is demonstrated at low distance between cover and LED light source as well as with optimized material thickness of the component. Components that are manufactured with this coloring appear optically white in reflected light.

Application:

The coloring of PLEXIGLAS® LED white 0V606 in the respective base molding compound is appropriate for injection molding, extrusion und injection blow molding for manufacturing molded parts for lighting applications with LED back lighting.

Examples:

Light covers, LED-lighting rails, bulbs, facade lighting and lighting switches

Processing:

In regards to manufacturing the remarks in the product information of base molding compounds should be considered.

Physical Form / Packaging:

PLEXIGLAS® LED white 0V606 can be supplied in any base molding compound, when obtaining a certain minimum amount, as pellets of uniform size in a two layered 25 kg Polyethylen bag, further packaging upon request.

Order example:

PLEXIGLAS® LED zk6BR white 0V606

Goniometer:

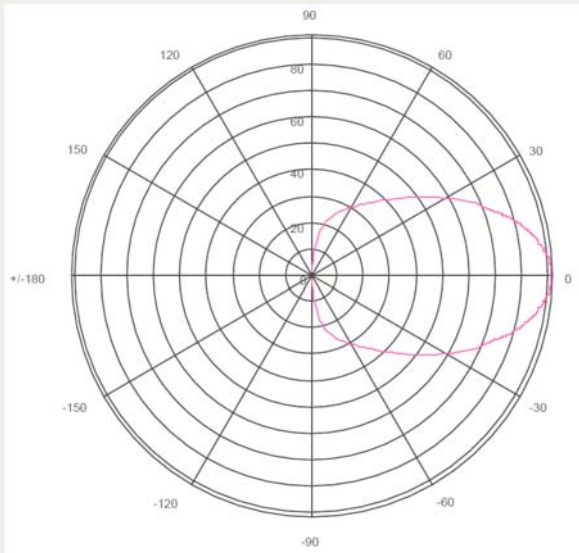
Half-value angle and scattering power to the goniometer for PLEXIGLAS® LED white 0V606 in thicknesses:

Properties

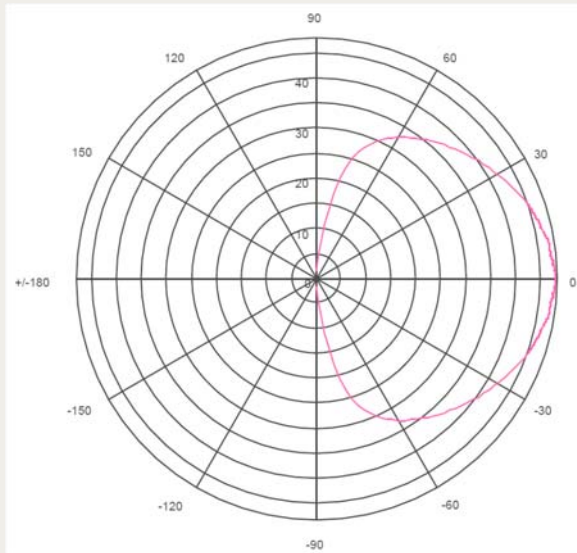
	Parameter	Unit	Standard	Material thickness			
				1 mm	2 mm	3 mm	4 mm
Light transmission	Varian Cary 5000, D 65	%	ISO 13468-2	71	52	44	37
Half-Value Angle		°	DIN 5036	37	69	74	75
Scattering power			DIN 5036	0.48	0.70	0.76	0.78
Max. luminance		cd/m ²		91	48	39	34

Goniometer polar diagrams:

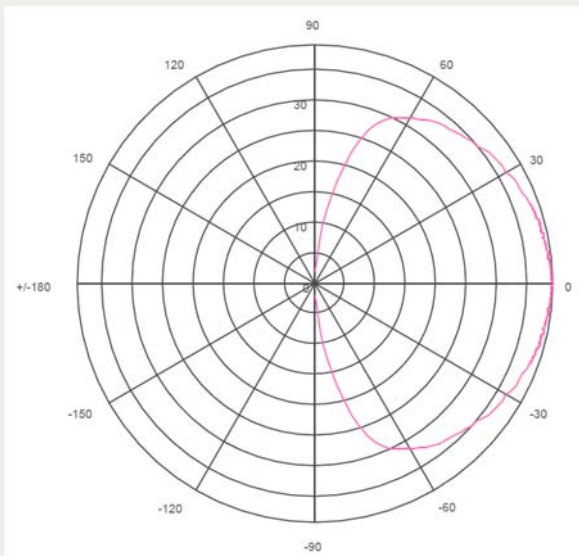
Luminance [cd/m^2] as a function of the measured angle [$^\circ$] of PLEXIGLAS® LED white 0V606



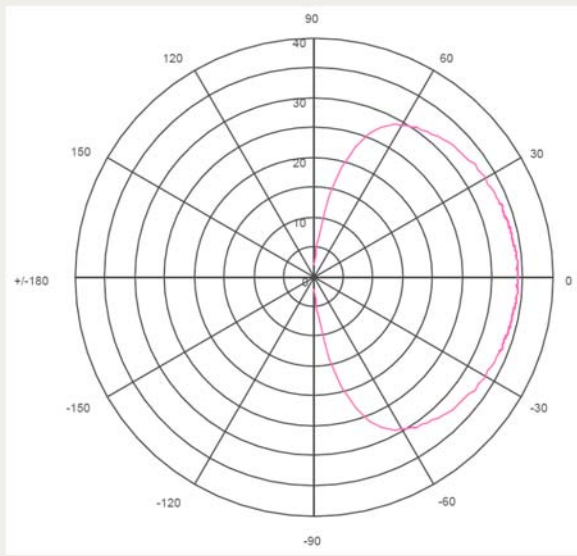
Material thickness 1 mm



Material thickness 2 mm



Material thickness 3 mm



Material thickness 4 mm

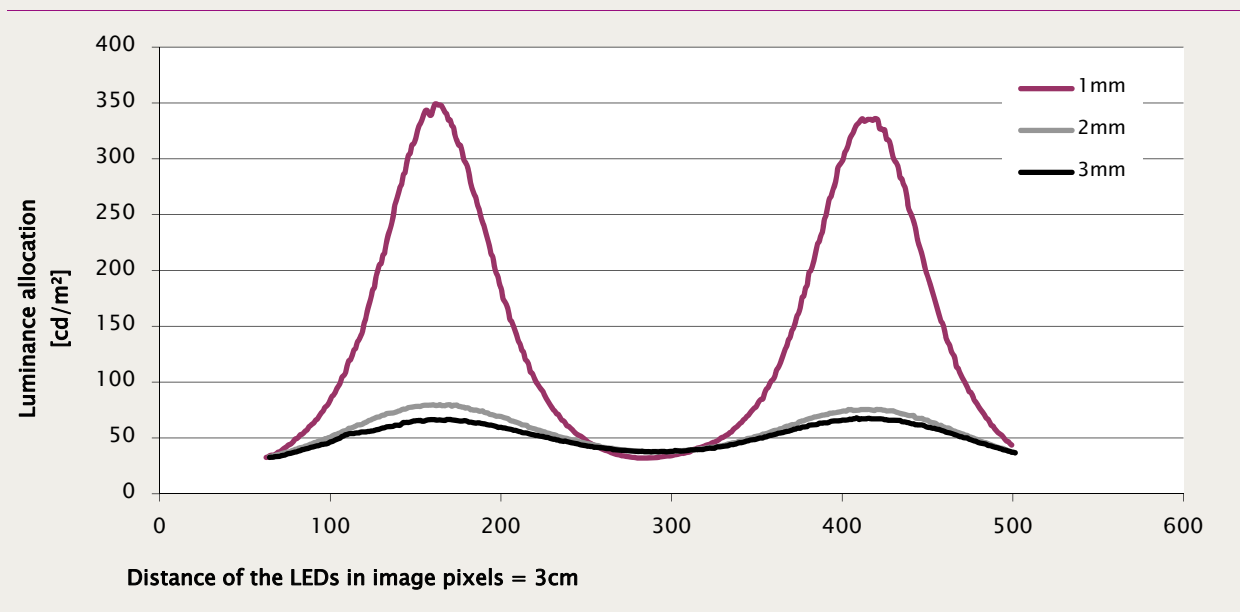
Light distribution with LED backlighting

Distance of the molding of PLEXIGLAS® LED white OV606 to the LED rear lighting is **5 mm**.

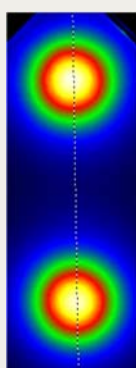
LED: OSRAM Diamond DRAGON LUW W5AP

Test setup: Evonik Industries AG

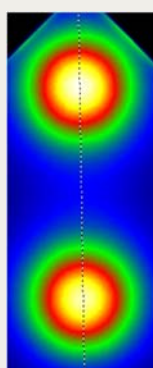
Luminance distribution measured in 1, 2 und 3 mm material thickness.



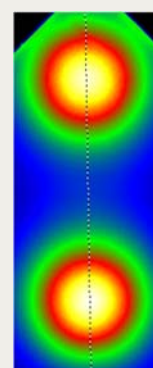
Luminance distribution in false color:



1 mm



2 mm



3 mm

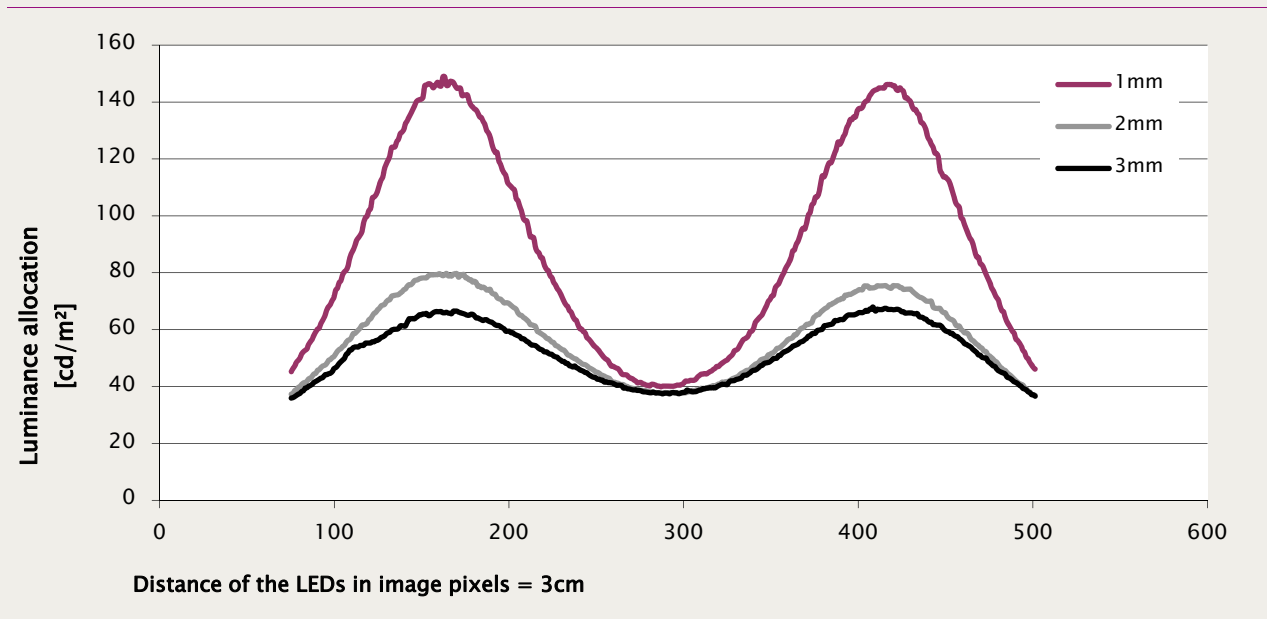
Light distribution with LED backlighting

Distance of the molding of PLEXIGLAS® LED white OV606 to the LED rear lighting is **10 mm**.

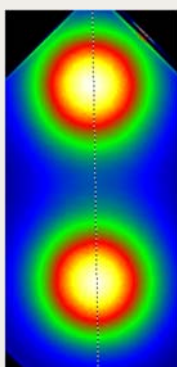
LED: OSRAM Diamond DRAGON LUW W5AP

Test setup: Evonik Industries AG

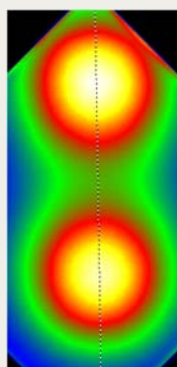
Luminance distribution measured in 1, 2 und 3 mm material thickness.



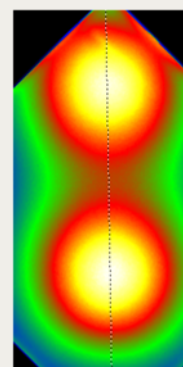
Luminance distribution in false color:



1 mm



2 mm



3 mm

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Evonik Performance Materials GmbH

Kirschenallee
64293 Darmstadt

plexiglas.polymers@evonik.com
www.plexiglas-polymers.de