



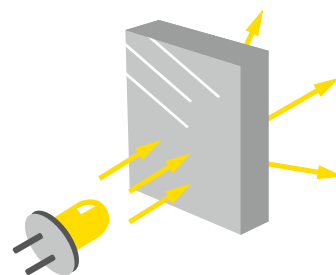
MAKROLON® DIFFUSERS (POLYCARBONATE)

Let there be light!



If you design or manufacture lighting diffusers to make LEDs more visually appealing, diffuser materials are available from the well-known Makrolon® product range for injection-molded or extruded diffuser parts that will create smooth and uniform light emissions, and avoid unwanted glare.

The main feature besides the light transmission and color are the diffusive properties of these materials. All three lighting properties (transmission, color and diffusion) are inter-dependent and need to be brought together in order to fulfill the requirements of the lighting assembly. Light diffusers are required in many areas, such as automotive and transportation, E & E, IT and communication.



DIFFUSERS

The diffusion or scattering properties are characterized by the half power angle (HPA). The HPA gives an indication of the viewing angle dependency from the viewer's perspective. A low HPA value indicates a lower diffusive material and a high value, a product with higher diffusion. There is no "good" or "bad" just the correct combination. The lighting properties of a Makrolon® diffuser grade are always to be considered relative to the requirements of the application.

Makrolon® Diffusers: advantages at a glance

Whichever applications your LED products are used for, our diffusion products display the following qualities:

- High light transmission
- Excellent masking of LED light source (no hot spots)
- High half-power angle
- Diffusion products and colors can be adjusted to your requirements

Polymer/ Product range	Makrolon	Color	MVR (cm ³ /10 min)	Transmission [%] @ 2 mm	Half power angle [°] @ 2 mm	UV-stabilization
PC LIGHT DIFFUSION INJECTION MOULDING	2407	012778	19	4	56	yes
	2407	020003	19	16	57	yes
	2407	020090	19	56	51	yes
	2407	020552	19	60	48	yes
	2407	020556	19	76	2	yes
	2407	021172	19	78	24	yes
	2407	021173	19	48	49	yes
	2407	021177	19	56	51	yes
	2407	021180	19	83	4	yes
	2407	021182	19	57	50	yes
	2207 DC	021441	36	71	33	yes
	2407	021468	19	63	36	yes
	2407	021528	19	70	34	yes
	2407	021529	19	80	20	yes
	2407	021531	19	85	4	yes
	2407	021533	19	68	36	yes
	2407	021537	19	64	33	yes
	2407	021688	19	71	33	yes

Polymer/ Product range	Grade	Color	MVR [cm ³ /10 min]	Transmission [%] @ 2 mm	Half power angle [°] @ 2mm	UV-stabilization	UL 94 @ mm
PC LIGHT DIFFUSION EXTRUSION	ET 3117	021696	6	64	40	yes	
	ET 3117	021730	6	53	57	yes	
	ET 3137	021458	6	50	56	yes	
	ET 3137	021703	6	57	48	yes	
	ET 3137	021718	6	56	42	yes	
	ET 3227	021298	3	55	46	yes	
	FR 7087	021533	12	66	37	yes	V-2 @1,5 V-0 @ 2,2 5VA @ 3

Additional products and information are available on request.

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

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