

ALCOM® LG – LIGHT GUIDING

Guiding the light



ALCOM® LG is a material for light guides based on polycarbonate. It achieves the high transmission values of conventional light guiding technology and guarantees targeted luminous efficiency.

The demand on the transport of light is becoming more complex, compromises often have to be accepted in applications. For such cases, we have developed ALCOM® LG (Light Guiding) based on polycarbonate.

This high-performance solution combines polymer specific advantages with outstanding optical properties. ALCOM® LG not only achieves the high transmission values of conventional light-guide technology, but also ensures a specific light performance.

With our special light laboratory for the development and testing of sophisticated ALCOM® Lighting solutions, we satisfy even the highest demands of our customers. By measuring and specifying transmission, diffusion and reflection, we ensure consistent lighting properties in all applications. Together with the desired mechanical material properties, we guarantee a continuous quality in series production.

In the Light Guiding (LG) segment, many products are already available for a wide range of application areas including functional, ambient or search lighting.

We are pleased in helping you to develop individual products that meet your needs.

ALCOM® LIGHT GUIDING: advantages at a glance

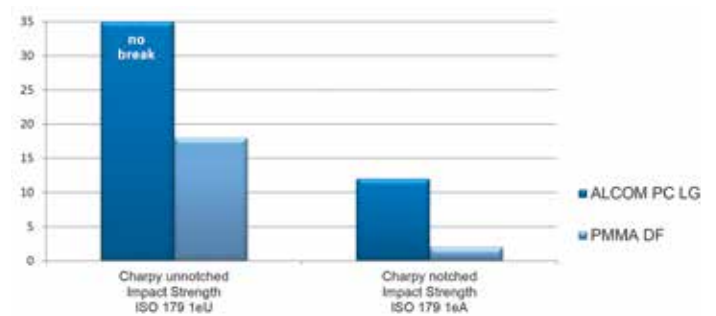
- Optimum light transmission
- Excellent flow characteristics and demoldability
- Good thermal stability
- Flame characteristics according to FMVSS 302/DIN 75200
- UL-listed or measured based on UL
- Glow wire rated (GWFI) according to DIN EN 60695 at 850 °C
- Ideal material for 2-component injection molding, e.g. for operating elements of polycarbonate

Polymer / Product Series	Material name	Color	Total Transmission T(Y) (d=4.0 mm, A, 2°) ISO 13468	Haze T(Y) (d=4.0 mm, III. A, 2°) ISO 13468	Half Power Angle T(Y) (d=4.0 mm, A, 2°)	MVR 300° / 1.2 kg ISO 1133	Sample applications
PC LIGHT GUIDING	ALCOM® PC 740/4 UV CC1320-08LG	with scatterer	88 %	92.5 %	10°	20 g/cm³	Light guides, corona ring, light scatterer lens, lamp cover
	ALCOM® PC 740/4 UV CC1321-08LG	with scatterer	87 %	94 %	16°	20 g/cm³	Light guides, corona ring, light scatterer lens, lamp cover
	ALCOM® PC 740/4 UV CC1322-08LG	with scatterer	84 %	95 %	20°	20 g/cm³	Light guides, corona ring, light scatterer lens, lamp cover
	ALCOM® PC 740/4 UV CC1323-08LG	with scatterer	77 %	95 %	28°	20 g/cm³	Light guides, corona ring, light scatterer lens, lamp cover
	ALCOM® LG PC 1000 UV 14094 CC1323-08	with scatterer	77 %	95 %	28°	28 g/cm³	Light ledge, lamp cover

Additional products and information are available on request.

Advantages of ALCOM® PC LG against PMMA DF

ALCOM® PC LG vs. PMMA DF	ALCOM® PC 740/4 UV CC132x-08LG	PMMA DF
Flammability	UL94 0.75 - 1.5 mm V-2 1.5 mm HB	UL94 only HB possible
Charpy unnotched Impact Strength ISO 179 eU	no Break	18 k/Jm²
Charpy notched Strength ISO 179 1eA	12 k/Jm²	2 k/Jm²
VICAT B50 ISO 306	124°C	98°C
HDT/A 1.80 MPa ISO 75	143°C	109°C



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