

PROCESSING GUIDE

ALCOM[®] PC LG is a Polycarbonate, an amorphous thermoplastic, with special additives for an optimal light guiding.

PRE-TREATMENT

ALCOM[®] PC LG is a hygroscopic polymer. Due to absorption of moisture from the air, drying is mandatory in order to avoid material degradation and surface defects. For specific filled products see corresponding Technical Data Sheet.

PROCESSING

ALCOM[®] PC LG may be processed on all standard injection moulding machines. Wear protected plasticising units for reinforced compounds are advised. Hotrunner with torpedo or hot tip are not recommended. ALCOM[®] PC LG products are more sensible to shearing – try to avoid small gates and process without excessive stress. For longer production interruptions, set cylinder heaters to about 170 °C and ensure heating.



Temperatures in degrees Celsius (°C)

¹ Guide values. Standard starting profile might be in the middle.

	Unit	Notes
Properties		
Polymer abbreviation		PC
Density (ISO 1183)	g/cm ³	1.18 – 1.20 (see Technical Data Sheet)
Injection Machinery		
Screw stroke		Metering stroke between 1 x D and 3 x D
Screw type		Three zone screw with L/D ratio 18:1 to 22:1
Nozzle type		Open or shut-off possible
Hopper type		Standard
Pre-processing		
Storage		Dry, protected from heat and light
Dryer type		Air circulating Dry air
Drying time	h	4 – 12 3 – 4
Drying temperature	°C	120
Permissible moisture content	%	< 0.02
Processing Conditions		
Melt temperature range	°C	280 – 300
Mould temperature range	°C	80 – 110
Coolant		Water
Throughput coolant		To ensure turbulent flow
Peripheral screw speed	mm/s	50 – 300, e.g. screw speed of 40rpm with a screw diameter of 50mm
Back pressure (specific)	bar	50 – 100
Residence time	minutes	< 5
Injection speed		Profile for constant flow front speed
Shrinkage²		
Shrinkage range (ISO 294-4)	%	0.5 – 0.9

² Shrinkage is influenced by the part geometry, the wall thickness of the moulding, the position and size of the gate and the processing parameters.

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