Technical Data Sheet

Alcom®

MOCOM

ALCOM LD PC 1000 UV 15072 GY1121-15

(Last update: 21.12.2022)

Base Polymer	Polycarbonate
Filler/Additive System	special filler,UV stabilised
Special Features	translucent,light scattering,high light diffusion
Market Segment	Automotive,Lighting
Application Area	lighting,light transparent components
Typical Applications	lamp covers,display elements,operating elements
Approvals	GS93016

Pre-Drying Conditions	120 °C in a dry air (dessiccant) dryer for 2-4 h 120 °C in an air circulating dryer for 4-12 h max. moisture content <0,02 %
Processing Injection Moulding	melt temperature 270-310 °C mould temperature 80-110 °C
Storage	dry, protected from light

Properties	Value	Dimension	Test Norm
Mechanical Properties			
Flexural Modulus	2450	MPa	ISO 178
Flexural Stress (3.5% Strain)	76	MPa	ISO 178
Tensile Modulus	2400	MPa	ISO 527
Tensile Stress at Yield	66	MPa	ISO 527
Tensile Elongation at Yield	6	%	ISO 527
Tensile Elongation at Break	70	%	ISO 527
Impact Strength (Charpy, 23°C)	no break	kJ/m²	ISO 179/1eU
Impact Strength (Charpy, -40°C)	no break	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy, 23°C)	12	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy, -40°C)	12	kJ/m²	ISO 179/1eA
Thermal Properties			
Vicat B50	142	°C	ISO 306
HDT / A (1,8 MPa)	124	°C	ISO 75-1/-2
Rheological Properties			
Melt Index (MVR)	27	cm³/10min	ISO 1133
MVR temperature	300	°C	-
MVR load	1.2	kg	-
Shrinkage (24h)	0.6 - 0.9	%	ISO 294-4
Physical Properties			
Density	1190	kg/m³	ISO 1183

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Flammability			
Flammability (0.75 mm)	V-2	class	UL 94
Yellow Card available	yes	-	-
Flammability (1.5 mm)	HB	class	UL 94
Yellow Card available	yes	-	-
Glow Wire (GWFI, 850°C, 1.0mm)	passed	-	DIN EN 60695
Glow Wire (GWFI, 850°C, 2.0mm)	passed	-	DIN EN 60695
Fire behavior FMVSS (1.0 mm)	passed	-	FMVSS 302/DIN 75200
Optical Properties			
Total Transmission T(Y) (d=1,0mm, A, 2°)	37	%	ISO 13468
Total Transmission T(Y) (d=2,0mm, A, 2°)	14	%	ISO 13468
Total Transmission T(Y) (d=3,0mm, A, 2°)	6	%	ISO 13468
Haze T(Y) (d=1,0 mm, A, 2°)	95.5	%	ISO 13468
Haze T(Y) (d=2,0 mm, A, 2°)	95.5	%	ISO 13468
Haze T(Y) (d=3,0 mm, A, 2°)	96	%	ISO 13468
Half Power Angle T(Y) (d=1,0mm, A, 2°)	29	°	-
Half Power Angle T(Y) (d=2,0mm, A, 2°)	45	°	-
Half Power Angle T(Y) (d=3,0mm, A, 2°)	49	°	-

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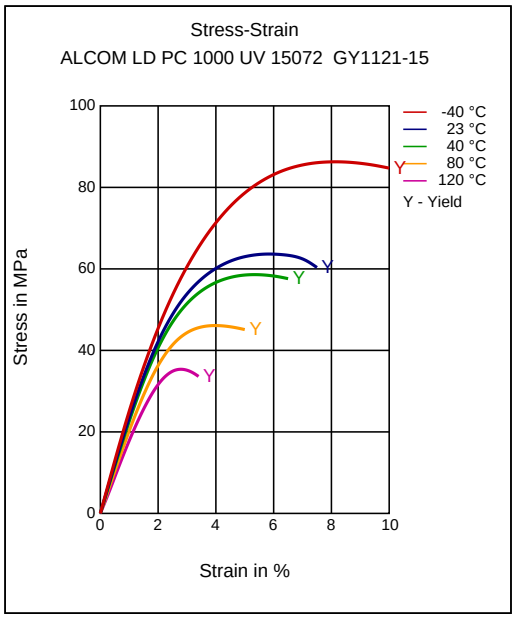
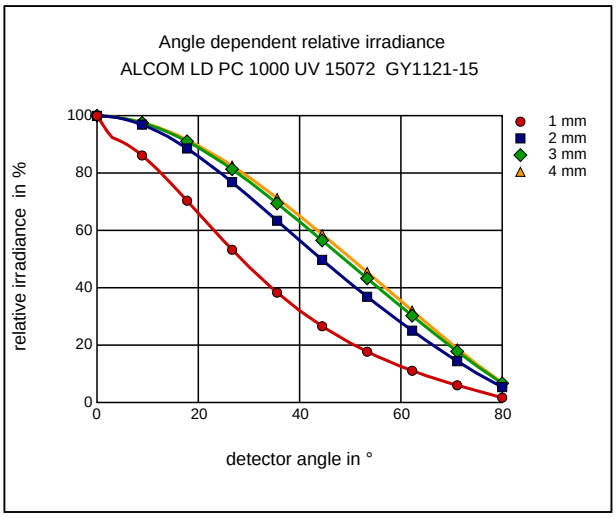
Diagrams

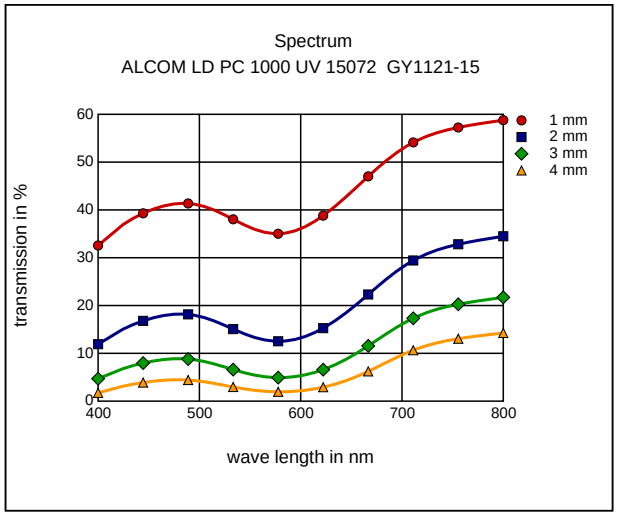
Stress-Strain



Angle dependent relative irradiance



Spectrum



Disclaimer

These are guide values and not a specification. The test values mentioned are representative values only and not binding minimum or maximum figures. These test values have been determined on standardised test specimens and can be affected by pigmentation, mould design and processing conditions

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- Medical devices described in list A according IVDD (98/79/EG) or risk class D in EU 2017/746 in vitro diagnostic medical devices (IVDR)
- Bodily implant applications for greater than 30 days (permanent implants) in any risk class
- Critical components in any medical device that supports or sustains human life

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