

Technical Data Sheet



ALCOM LD2 PC 1000 UV 16059 CC1059-16

Base Polymer	Polycarbonate
Filler/Additive System	special filler, UV stabilised
Special Features	high light transmission, light scattering, high light diffusion, easy flow
Market Segment	Automotive, Lighting
Application Area	lighting, light transparent components
Typical Applications	Light diffusing panel, Light diffuser, lamp covers
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/m ²	ISO 179/1eU
Impact Strength (Charpy, -40°C)	no break	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy, 23°C)	8	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy, -40°C)	8	kJ/m ²	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)	35	cm ³ /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/m ³	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°)	82	%	ISO 13468
Total Transmission T(Y) (d=2,0mm, A, 2°)	69	%	ISO 13468
Total Transmission T(Y) (d=3,0mm, A, 2°)	59	%	ISO 13468
Total Transmission T(Y) (d=4,0mm, A, 2°)	51	%	ISO 13468
Haze T(Y) (d=1,0 mm, A, 2°)	95.5	%	ISO 13468
Haze T(Y) (d=2,0 mm, A, 2°)	96	%	ISO 13468
Haze T(Y) (d=3,0 mm, A, 2°)	96	%	ISO 13468
Haze T(Y) (d=4,0 mm, A, 2°)	96	%	ISO 13468
Half Power Angle T(Y) (d=1,0mm, A, 2°)	22	°	-
Half Power Angle T(Y) (d=2,0mm, A, 2°)	35	°	-
Half Power Angle T(Y) (d=3,0mm, A, 2°)	44	°	-
Half Power Angle T(Y) (d=4,0mm, A, 2°)	48	°	-

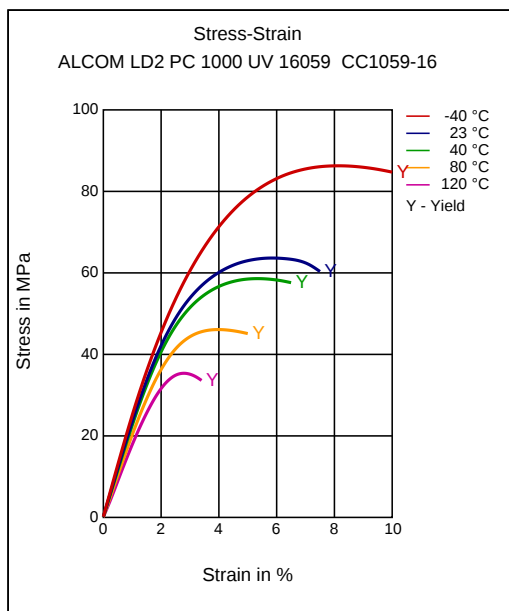
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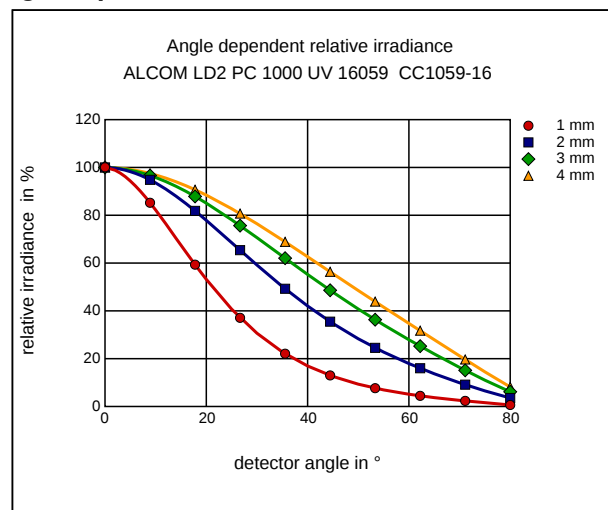
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Diagrams

Stress-Strain



Angle dependent relative irradiance



Spectrum

