

Technical Data Sheet



ALCOM LD2 PC 1000 17059 GY1051-17

Base Polymer	Polycarbonate
Filler/Additive System	special filler
Special Features	high light transmission,light scattering
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	110	%	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)	11	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy, -40°C)	11	kJ/m ²	ISO 179/1eA
Thermal Properties			
Vicat B50	142	°C	ISO 306
HDT / A (1,8 MPa)	128	°C	ISO 75-1/-2
Rheological Properties			
Melt Index (MVR)	12	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°)	84	%	ISO 13468
Total Transmission T(Y) (d=2,0mm, A, 2°)	77	%	ISO 13468
Total Transmission T(Y) (d=3,0mm, A, 2°)	71	%	ISO 13468
Total Transmission T(Y) (d=4,0mm, A, 2°)	65	%	ISO 13468
Haze T(Y) (d=1,0 mm, A, 2°)	3.5	%	ISO 13468
Haze T(Y) (d=2,0 mm, A, 2°)	3.5	%	ISO 13468
Haze T(Y) (d=3,0 mm, A, 2°)	3.5	%	ISO 13468
Haze T(Y) (d=4,0 mm, A, 2°)	3.5	%	ISO 13468
Half Power Angle T(Y) (d=1,0mm, A, 2°)	1	°	-
Half Power Angle T(Y) (d=2,0mm, A, 2°)	1	°	-
Half Power Angle T(Y) (d=3,0mm, A, 2°)	1	°	-
Half Power Angle T(Y) (d=4,0mm, A, 2°)	1	°	-

Diagrams

Stress-Strain

