

Technical Data Sheet - Preliminary Product



ALCOM MED LD2 PC 1000

Base Polymer	Polycarbonate
Filler/Additive System	special filler
Special Features	translucent,light scattering,injection moulding grade
Market Segment	Lighting,Medical / Personal Care
Application Area	lighting,light transparent components
Typical Applications	lamp covers,display elements,operating elements

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
Minimum Shelf Life	months <12

Properties	Value	Dimension	Based on 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	100	%	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)	13	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy, -40°C)	13	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)	20	cm ³ /10min	ISO 1133
MVR temperature	300	°C	-
MVR load	1.2	kg	-
Shrinkage (24h)	0.6 - 0.9	%	ISO 294-4

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Physical Properties

Density	1190	kg/m ³	ISO 1183
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Flammability

Flammability (0.75 mm)	V-2	class	UL 94
Flammability (1.5 mm)	V-2	class	UL 94
Glow Wire (GWFI, 850 °C, 2.0mm)	passed	-	DIN EN 60695

Optical Properties

Total Transmission T(Y) (d=1,0mm, A, 2°)	53	%	ISO 13468
Total Transmission T(Y) (d=2,0mm, A, 2°)	41	%	ISO 13468
Total Transmission T(Y) (d=3,0mm, A, 2°)	33.5	%	ISO 13468
Total Transmission T(Y) (d=4,0mm, A, 2°)	27.5	%	ISO 13468
Haze T(Y) (d=1,0 mm, A, 2°)	95	%	ISO 13468
Haze T(Y) (d=2,0 mm, A, 2°)	95	%	ISO 13468
Haze T(Y) (d=3,0 mm, A, 2°)	95	%	ISO 13468
Haze T(Y) (d=4,0 mm, A, 2°)	95	%	ISO 13468
Half Power Angle T(Y) (d=1,0mm, A, 2°)	57	°	-
Half Power Angle T(Y) (d=2,0mm, A, 2°)	61	°	-
Half Power Angle T(Y) (d=3,0mm, A, 2°)	63	°	-
Half Power Angle T(Y) (d=4,0mm, A, 2°)	64	°	-