Technical Data Sheet

Alcom®

MOCOM

ALCOM LD PC 2020 UV 17027 WT1022-17

(Last update: 06.02.2024)

Base Polymer	Polycarbonate
Filler/Additive System	special filler,20 % glass fibres,UV stabilised
Special Features	high light transmission,light scattering,high light diffusion
Market Segment	Automotive,Lighting
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 2-3 h max. moisture content <0,02 %
Processing Injection Moulding	melt temperature 290-320 °C mould temperature 80-130 °C
Storage	dry, protected from light

Properties	Value	Dimension	Test Norm
Mechanical Properties			
Flexural Modulus	5600	MPa	ISO 178
Flexural Strength	150	MPa	ISO 178
Tensile Modulus	6000	MPa	ISO 527
Tensile Strength at Break	90	MPa	ISO 527
Tensile Elongation at Break	2.7	%	ISO 527
Impact Strength (Charpy, 23°C)	47	kJ/m²	ISO 179/1eU
Impact Strength (Charpy, -40°C)	47	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy, 23°C)	8	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy, -40°C)	5.5	kJ/m²	ISO 179/1eA
Thermal Properties			
Vicat B50	146	°C	ISO 306
HDT / A (1,8 MPa)	142	°C	ISO 75-1/-2
Rheological Properties			
Melt Index (MVR)	13	cm³/10min	ISO 1133
MVR temperature	300	°C	-
MVR load	1.2	kg	-
Shrinkage (lengthwise, 24h)	0.2 - 0.4	%	ISO 294-4
Shrinkage (lateral, 24h)	0.2 - 0.4	%	ISO 294-4
Physical Properties			
Density	1330	kg/m³	ISO 1183
Optical Properties			
Total Transmission T(Y) (d=1,0mm, A, 2°)	54	%	ISO 13468

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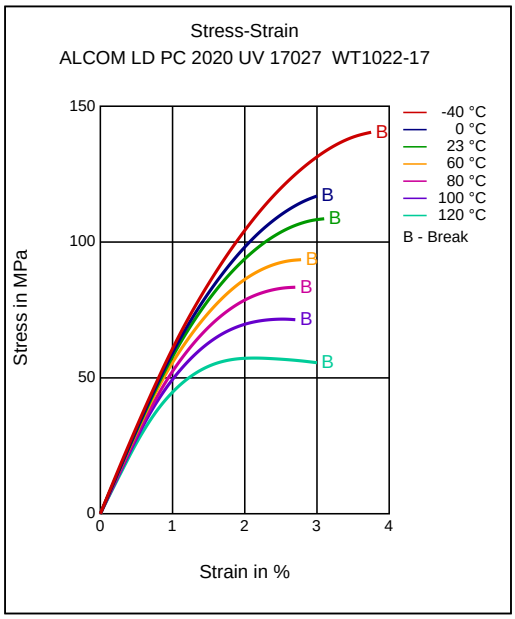
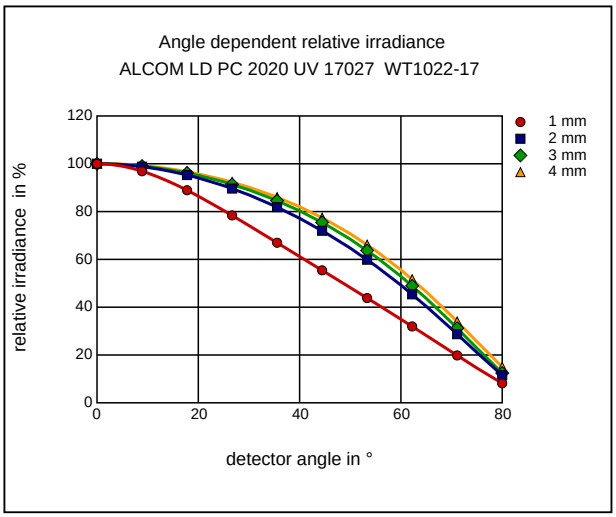
Total Transmission T(Y) (d=2,0mm, A, 2°)	41	%	ISO 13468
Total Transmission T(Y) (d=3,0mm, A, 2°)	32	%	ISO 13468
Total Transmission T(Y) (d=4,0mm, A, 2°)	25	%	ISO 13468
Haze T(Y) (d=1,0 mm, A, 2°)	95	%	ISO 13468
Haze T(Y) (d=2,0 mm, A, 2°)	95.5	%	ISO 13468
Haze T(Y) (d=3,0 mm, A, 2°)	95.5	%	ISO 13468
Haze T(Y) (d=4,0 mm, A, 2°)	95.5	%	ISO 13468
Half Power Angle T(Y) (d=1,0mm, A, 2°)	49	°	-
Half Power Angle T(Y) (d=2,0mm, A, 2°)	60	°	-
Half Power Angle T(Y) (d=3,0mm, A, 2°)	62	°	-
Half Power Angle T(Y) (d=4,0mm, A, 2°)	63	°	-

Diagrams

Stress-Strain



Angle dependent relative irradiance



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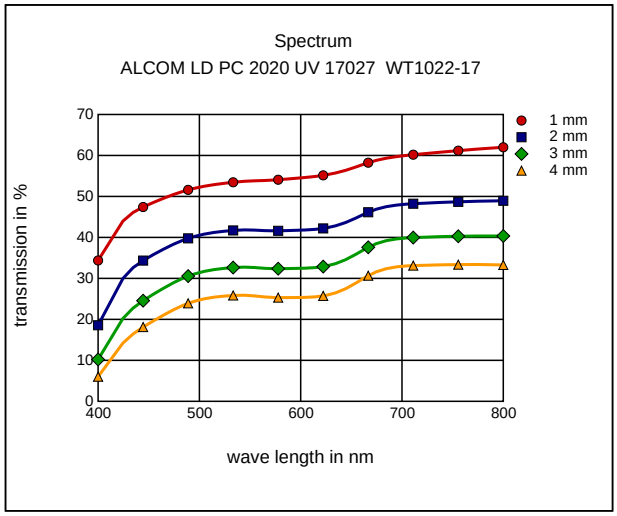
Spectrum



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 categorized as risk class III according to EU Medical Device Regulation (MDR) 2017/745 or risk class 3 FDA
- 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)

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- 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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