Technical Data Sheet

ALCOM®

HongRong Engineering Plastics Co.,Ltd.
Head Office Tel. +85-2-6957-5415
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ALCOM LD PC 2020 UV 17027 WT1022-17

(Last update: 28.01.2019)

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 dependant on moisture content max. moisture content <0,02 %
Processing Conditions	injection moulding melt temperature 310-330 °C injection moulding 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
Charpy impact strength 1eU	47	kJ/m²	ISO 179/1eU
Charpy impact strength 1eU -40°C	47	kJ/m²	ISO 179/1eU
Charpy notched impact 1eA	8	kJ/m²	ISO 179/1eA
Charpy notched impact 1eA -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			
MVR	13	cm³/10min	ISO 1133
MVR temperature	300	°C	-
MVR load	1.2	kg	-
Physical Properties			
Density	1330	kg/m³	ISO 1183
Optical Properties			
Total Transmission T(Y) (d=1,0mm, A, 2°)	54	%	ISO 13468
Total Transmission T(Y) (d=2,0mm, A, 2°)	41	%	ISO 13468

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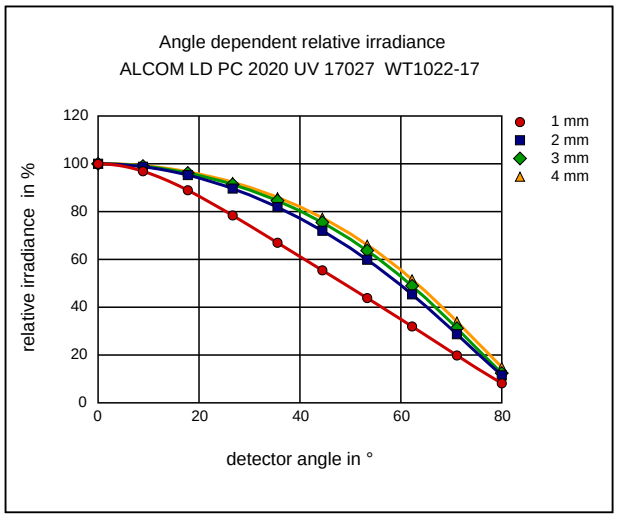
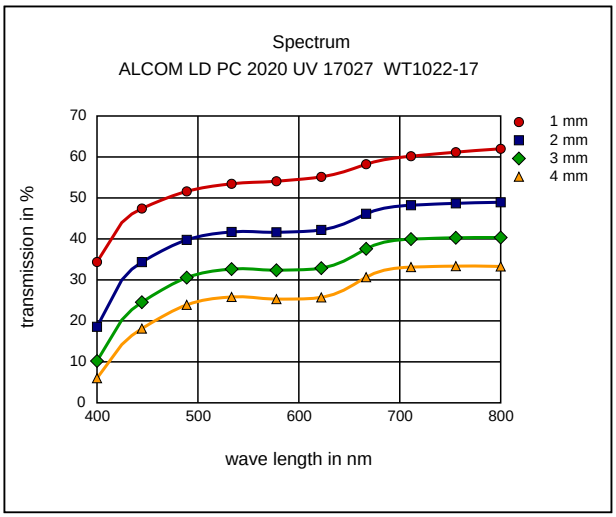
Total Transmission T(Y) (d=3,0mm, A, 2°)	32	%	ISO 13468
Total Transmission T(Y) (d=4,0mm, A, 2°)	25	%	ISO 13468
Haze T(Y) (d=1,0 mm, A, 2°)	95	%	ISO 13468
Haze T(Y) (d=2,0 mm, A, 2°)	95.5	%	ISO 13468
Haze T(Y) (d=3,0 mm, A, 2°)	95.5	%	ISO 13468
Haze T(Y) (d=4,0 mm, A, 2°)	95.5	%	ISO 13468
Half Power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

Diagrams

Angle dependent relative irradiance



Spectrum



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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