Technical Data Sheet

ALCOM LDDC PMMA 1000UV18123 BK1016-11

(Last update: 31.05.2023)

Base Polymer	Polymethylmethacrylate
Filler/Additive System	UV stabilised
Special Features	translucent
Market Segment	Automotive,Lighting
Application Area	interior decoration / finishing,light transparent components,Black Panel-Technology
Typical Applications	lamp covers,display elements,operating elements

Pre-Drying Conditions	80 °C in a dry air (dessiccant) dryer for 3-4 h 80 °C in an air circulating dryer for 4-6 h max. moisture content <0,02 %
Processing Injection Moulding	melt temperature 220-270 °C mould temperature 50-80 °C
Storage	dry, protected from light

Properties	Value	Dimension	Test Norm
Mechanical Properties			
Flexural Modulus	3500	MPa	ISO 178
Flexural Strength	100	MPa	ISO 178
Tensile Modulus	3400	MPa	ISO 527
Tensile Strength at Break	78	MPa	ISO 527
Tensile Elongation at Break	4.1	%	ISO 527
Impact Strength (Charpy, 23°C)	20	kJ/m²	ISO 179/1eU
Impact Strength (Charpy, -40°C)	20	kJ/m²	ISO 179/1eU
Thermal Properties			
Vicat B50	110	°C	ISO 306
HDT / A (1,8 MPa)	85	°C	ISO 75-1/-2
Rheological Properties			
Melt Index (MVR)	5	cm³/10min	ISO 1133
MVR temperature	230	°C	-
MVR load	3.8	kg	-
Physical Properties			
Density	1180	kg/m³	ISO 1183
Flammability			
Flammability (1.5 mm)	HB	class	UL 94

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Glow Wire (GWFI, 650°C, 1.0mm)	passed	-	DIN EN 60695
Glow Wire (GWFI, 650°C, 2.0mm)	passed	-	DIN EN 60695

Optical Properties

Total Transmission T(Y) (d=1,0mm, A, 2°)	34.5	%	ISO 13468
Total Transmission T(Y) (d=2,0mm, A, 2°)	12	%	ISO 13468
Total Transmission T(Y) (d=3,0mm, A, 2°)	4.5	%	ISO 13468
Haze T(Y) (d=1,0 mm, A, 2°)	11	%	ISO 13468
Haze T(Y) (d=2,0 mm, A, 2°)	21	%	ISO 13468
Haze T(Y) (d=3,0 mm, A, 2°)	28	%	ISO 13468
Half Power Angle T(Y) (d=1,0mm, A, 2°)	1	°	-

Liability Exclusion

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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