

ALCOM LDDC PMMA 1000 UV GY1196-20

(Last update: 01.02.2024)

MOCOM

Base Polymer	Polymethylmethacrylate
Filler/Additive System	UV stabilised, special filler
Special Features	translucent, light scattering, injection moulding grade, impact modified
Market Segment	Lighting, electrical and electronic
Application Area	light transparent components, gardening tools
Typical Applications	display elements, operating elements

Pre-Drying Conditions	80 °C in a dry air (desiccant) dryer for 2-3 h 80 °C in an air circulating dryer for 4-6 h max. moisture content <0,02 %
Processing Injection Moulding	melt temperature 220-260 °C mould temperature 50-70 °C
Storage	dry, protected from light

Properties	Value	Dimension	Test Norm
Mechanical Properties			
Flexural Modulus	1800	MPa	ISO 178
Flexural Stress (3.5% Strain)	50	MPa	ISO 178
Tensile Modulus	1700	MPa	ISO 527
Tensile Stress at Yield	44	MPa	ISO 527
Tensile Elongation at Yield	5.1	%	ISO 527
Tensile Elongation at Break	25	%	ISO 527
Impact Strength (Charpy, 23 °C)	85	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy, -40 °C)	23	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy, 23 °C)	6	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy, -40 °C)	1.5	kJ/m ²	ISO 179/1eA
Thermal Properties			
Vicat B50	88	°C	ISO 306
HDT / A (1,8 MPa)	74	°C	ISO 75-1/-2
Rheological Properties			
Melt Index (MVR)	5	cm ³ /10min	ISO 1133
MVR temperature	230	°C	-
MVR load	3.8	kg	-
Shrinkage (24h)	0.5 - 0.8	%	ISO 294-4
Physical Properties			
Density	1160	kg/m ³	ISO 1183



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Flammability

Flammability (1.5 mm)	HB	class	UL 94
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°)	29	%	ISO 13468
Total Transmission T(Y) (d=2,0mm, A, 2°)	9.5	%	ISO 13468
Haze T(Y) (d=1,0 mm, A, 2°)	95.5	%	ISO 13468
Haze T(Y) (d=2,0 mm, A, 2°)	95.5	%	ISO 13468
Half Power Angle T(Y) (d=1,0mm, A, 2°, high res.)	19	°	-
Half Power Angle T(Y) (d=2,0mm, A, 2°, high res.)	43	°	-

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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