

Technical Data Sheet



ALCOM LD2 HTC 1000 18160 CC1198-18

Base Polymer	High Temperature Copolyester
Special Features	high toughness, high light transmission, processing stabilised, injection moulding grade
Market Segment	Lighting
Application Area	lamp covers

Pre-Drying Conditions 90 °C in a dry air (dessiccant) dryer
for 4-6 h
max. moisture content <0,03 %

Processing Injection Moulding melt temperature 260-280 °C
mould temperature 50-70 °C

Storage dry, protected from light

Properties	Value	Dimension	Test Norm
Mechanical Properties			
Flexural Modulus	1600	MPa	ISO 178
Flexural Stress (3.5% Strain)	51	MPa	ISO 178
Tensile Modulus	1600	MPa	ISO 527
Tensile Stress at Yield	45	MPa	ISO 527
Tensile Elongation at Yield	6.2	%	ISO 527
Tensile Elongation at Break	125	%	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)	95	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy, -40°C)	9	kJ/m ²	ISO 179/1eA
Thermal Properties			
Vicat B50	108	°C	ISO 306
HDT / A (1,8 MPa)	84	°C	ISO 75-1/-2
Rheological Properties			
Melt Index (MVR)	15	cm ³ /10min	ISO 1133
MVR temperature	280	°C	-
MVR load	2.16	kg	-
Shrinkage (24h)	0.4 - 0.7	%	ISO 294-4
Physical Properties			
Density	1180	kg/m ³	ISO 1183
Flammability			
Flammability (1.5 mm)	HB	class	UL 94
Glow Wire (GWFI, 850°C, 1.0mm)	passed	-	DIN EN 60695

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Optical Properties

Total Transmission T(Y) (d=1,0mm, A, 2°)	90	%	ISO 13468
Total Transmission T(Y) (d=2,0mm, A, 2°)	89	%	ISO 13468
Total Transmission T(Y) (d=3,0mm, A, 2°)	87.5	%	ISO 13468
Total Transmission T(Y) (d=4,0mm, A, 2°)	86	%	ISO 13468
Haze T(Y) (d=1,0 mm, A, 2°)	16	%	ISO 13468
Haze T(Y) (d=2,0 mm, A, 2°)	26.5	%	ISO 13468
Haze T(Y) (d=3,0 mm, A, 2°)	38	%	ISO 13468
Haze T(Y) (d=4,0 mm, A, 2°)	46.5	%	ISO 13468
Half Power Angle T(Y) (d=1,0mm, A, 2°)	1	°	-
Half Power Angle T(Y) (d=2,0mm, A, 2°)	1	°	-
Half Power Angle T(Y) (d=3,0mm, A, 2°)	1	°	-
Half Power Angle T(Y) (d=4,0mm, A, 2°)	1	°	-