

Technical Data Sheet



ALCOM HTC 300/1 WT1056-10LD

Base Polymer	High Temperature Copolyester
Filler/Additive System	special filler
Special Features	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	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	1700	MPa	ISO 178
Flexural Stress (3.5% Strain)	55	MPa	ISO 178
Flexural Strength	70	MPa	ISO 178
Tensile Modulus	1600	MPa	ISO 527
Tensile Stress at Yield	45	MPa	ISO 527
Tensile Elongation at Yield	6	%	ISO 527
Tensile Elongation at Break	110	%	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)	85	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy, -40°C)	10	kJ/m ²	ISO 179/1eA
Thermal Properties			
Vicat B50	105	°C	ISO 306
HDT / A (1,8 MPa)	90	°C	ISO 75-1/-2
Rheological Properties			
Melt Index (MVR)	16	cm ³ /10min	ISO 1133
MVR temperature	280	°C	-
MVR load	2.16	kg	-
Shrinkage (24h)	0.5 - 0.8	%	ISO 294-4
Physical Properties			
Density	1180	kg/m ³	ISO 1183

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Flammability

Flammability (0.75 mm)	HB	class	UL 94
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
Glow Wire (GWFI, 650°C, 3.0mm)	passed	-	DIN EN 60695

Optical Properties

Total Transmission T(Y) (d=1,0mm, A, 2°)	57.5	%	ISO 13468
Total Transmission T(Y) (d=2,0mm, A, 2°)	46	%	ISO 13468
Total Transmission T(Y) (d=3,0mm, A, 2°)	38	%	ISO 13468
Total Transmission T(Y) (d=4,0mm, A, 2°)	31.5	%	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°)	48	°	-
Half Power Angle T(Y) (d=4,0mm, A, 2°)	65	°	-