

Technical Data Sheet



ALCOM TCD PA6 5060 FR 16089

Base Polymer	Polyamide 6
Filler/Additive System	special filler
Special Features	thermal conductive,electrically insulating,heat stabilised,halogen-free flame retardant
Market Segment	Automotive,Machinery,electrical and electronic,Lighting
Application Area	radiator systems,cooling system
Typical Applications	housings,functional components,plugs / connectors,lamp sockets

Pre-Drying Conditions 80 °C in a dry air (dessiccant) dryer
for 2-12 h
max. moisture content <0,12 %

Processing Injection Moulding melt temperature 280-300 °C
mould temperature 100-120 °C

Storage dry, protected from light

Properties	dry/cond.	Dimension	Test Norm
Mechanical Properties			
Flexural Modulus	9300 / 4100	MPa	ISO 178
Flexural Strength	130 / 70	MPa	ISO 178
Tensile Modulus	9300 / 3800	MPa	ISO 527
Tensile Strength at Break	75 / 48	MPa	ISO 527
Tensile Elongation at Break	1.3 / 3.8	%	ISO 527
Impact Strength (Charpy, 23°C)	25 / 24	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy, -40°C)	20 / -	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy, 23°C)	3 / 2.8	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy, -40°C)	2 / -	kJ/m ²	ISO 179/1eA
Thermal Properties			
HDT / A (1,8 MPa)	153 / *	°C	ISO 75-1/-2
DSC (Melt Point)	220 / *	°C	ISO 11357
Thermal Conductivity (Integral)	1.2	W/(m K)	ISO 22007-2
Thermal Conductivity (in-plane)	1.8	W/(m K)	ASTM E 1461
Thermal Conductivity (through-plane)	1.1	W/(m K)	ASTM E 1461
Specific Heat Capacity	1.45	J/(g K)	-
Electrical Properties			
Surface Resistance	1E12	Ohm	DIN EN 62631-3-2
Tracking Resistance (CTI)	600 / -	-	IEC 60112
Dielectric Strength	33 / -	kV/mm	IEC 60243-1

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Rheological Properties

Shrinkage (lengthwise, 24h)	0.9 - 1.1	%	ISO 294-4
Shrinkage (lateral, 24h)	0.8 - 1	%	ISO 294-4

Physical Properties

Density	1630 / -	kg/m³	ISO 1183
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Flammability

Flammability (0.75 mm)	V-2 / *	class	UL 94
Yellow Card available	yes / *	-	-
Flammability (1.5 mm)	V-0 / *	class	UL 94
Yellow Card available	yes / *	-	-
Glow Wire (GWFI, 960 °C, 1.0mm)	passed	-	DIN EN 60695