



ALCOM TCD PA6 5060 FR 16089

(Last update: 12.04.2024)



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

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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