Technical Data Sheet

ALCOM PA66 910/1.1 CF10

(Last update: 24.08.2022)

Base Polymer	Polyamide 66
Filler/Additive System	10 % carbon fibres
Special Features	electrically conductive,reduced surface resistivity,heat stabilised,high stiffness
Market Segment	Automotive,Machinery
Application Area	various
Typical Applications	bearings,functional components

Pre-Drying Conditions	80 °C in a dry air (dessiccant) dryer for 2-12 h max. moisture content <0,15 %
Processing Injection Moulding	melt temperature 280-300 °C mould temperature 80-120 °C
Storage	dry, protected from light

Properties	dry/cond.	Dimension	Test Norm
Mechanical Properties			
Flexural Modulus	7400 / -	MPa	ISO 178
Flexural Strength	220 / -	MPa	ISO 178
Tensile Modulus	8100 / -	MPa	ISO 527
Tensile Strength at Break	155 / -	MPa	ISO 527
Tensile Elongation at Break	2.4 / -	%	ISO 527
Impact Strength (Charpy, 23°C)	30 / -	kJ/m²	ISO 179/1eU
Impact Strength (Charpy, -40°C)	28 / -	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy, 23°C)	4 / -	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy, -40°C)	3 / -	kJ/m²	ISO 179/1eA
Thermal Properties			
HDT / A (1,8 MPa)	250 / *	°C	ISO 75-1/-2
DSC (Melt Point)	263 / *	°C	ISO 11357
Electrical Properties			
Surface Resistance	* / 700	Ohm	IEC 62631-3-2
Rheological Properties			
Shrinkage (lengthwise, 24h)	0.1 - 0.3	%	ISO 294-4
Shrinkage (lateral, 24h)	0.6 - 0.8	%	ISO 294-4
Physical Properties			
Density	1170 / -	kg/m³	ISO 1183

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Tribologic Properties

Coefficient of Sliding Friction µ (pv = 5*1 MPa*m/s)	0.26	-	ASTM G 137
Coefficient of Sliding Friction µH (pv = 5*1 MPa*m/s)	0.31	-	ASTM G 137
Specific Wear Rate ws (pv = 5*1 MPa*m/s)	0.33	E-6 mm³/Nm	ASTM G 137
Linear Wear Rate w (pv = 5*1 MPa*m/s)	5.9	µm/h	ASTM G 137