

Technical Data Sheet



ALCOM PA66 910/1.1 CF10 PTFE10

Base Polymer	Polyamide 66
Filler/Additive System	10 % carbon fibres, 10 % PTFE
Special Features	improved sliding / wear, heat stabilised, electrically conductive, reduced surface resistivity
Market Segment	Automotive, Machinery
Application Area	injection moulded parts
Typical Applications	functional components

Pre-Drying Conditions	in a dry air (dessiccant) dryer <80 °C for 2-12 h dependant on moisture content
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	7900 / -	MPa	ISO 178
Flexural Strength	230 / -	MPa	ISO 178
Tensile Modulus	9400 / -	MPa	ISO 527
Tensile Strength at Break	160 / -	MPa	ISO 527
Tensile Elongation at Break	3 / -	%	ISO 527
Impact Strength (Charpy, 23°C)	37 / -	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy, -40°C)	31 / -	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy, 23°C)	5 / -	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy, -40°C)	3.5 / -	kJ/m ²	ISO 179/1eA
Thermal Properties			
HDT / A (1,8 MPa)	251 / *	°C	ISO 75-1/-2
DSC (Melt Point)	262 / *	°C	ISO 11357
Electrical Properties			
Surface Resistance	* / 400	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	1230 / -	kg/m ³	ISO 1183

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Tribologic Properties

Coefficient of Sliding Friction μ ($p_v = 5 \cdot 1 \text{ MPa} \cdot \text{m/s}$)	0.25	-	ASTM G 137
Coefficient of Sliding Friction μ_H ($p_v = 5 \cdot 1 \text{ MPa} \cdot \text{m/s}$)	0.3	-	ASTM G 137
Specific Wear Rate w_s ($p_v = 5 \cdot 1 \text{ MPa} \cdot \text{m/s}$)	0.37	E-6 mm^3/Nm	ASTM G 137
Linear Wear Rate w ($p_v = 5 \cdot 1 \text{ MPa} \cdot \text{m/s}$)	6.6	$\mu\text{m/h}$	ASTM G 137