



## ALCOM PA66 910/1.1 CF10 PTFE10

(Last update: 20.10.2022)



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
<b>Mechanical Properties</b>			
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 <sup>2</sup>	ISO 179/1eU
Impact Strength (Charpy, -40°C)	31 / -	kJ/m <sup>2</sup>	ISO 179/1eU
Notched Impact Strength (Charpy, 23°C)	5 / -	kJ/m <sup>2</sup>	ISO 179/1eA
Notched Impact Strength (Charpy, -40°C)	3.5 / -	kJ/m <sup>2</sup>	ISO 179/1eA
<b>Thermal Properties</b>			
HDT / A (1,8 MPa)	251 / *	°C	ISO 75-1/-2
DSC (Melt Point)	262 / *	°C	ISO 11357
<b>Electrical Properties</b>			
Surface Resistance	* / 400	Ohm	IEC 62631-3-2
<b>Rheological Properties</b>			
Shrinkage (lengthwise, 24h)	0.1 - 0.3	%	ISO 294-4
Shrinkage (lateral, 24h)	0.6 - 0.8	%	ISO 294-4
<b>Physical Properties</b>			
Density	1230 / -	kg/m <sup>3</sup>	ISO 1183



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### Tribologic Properties

Coefficient of Sliding Friction $\mu$ ( $p_v = 5 \cdot 1 \text{ MPa} \cdot \text{m/s}$ )	0.25	-	ASTM G 137
Coefficient of Sliding Friction $\mu_H$ ( $p_v = 5 \cdot 1 \text{ MPa} \cdot \text{m/s}$ )	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 <sup>3</sup> /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

### 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.

Any information given on the chemical and physical characteristics of our products, including, without limitation, technical advice on applications, whether verbally, in writing or by testing the product, is given to the best of our knowledge and in good faith and does not exempt the buyer from carrying out their own investigations and tests in order to ascertain the product's specific suitability for the purpose intended.

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