

Technical Data Sheet



ALCOM PC 740/3162.1 CF10 GF10 TF10

Base Polymer	Polycarbonate
Filler/Additive System	10 % glass fibres, 20 % carbon fibre/PTFE
Special Features	electrically conductive, improved sliding / wear, high stiffness
Market Segment	Automotive, Machinery
Typical Applications	housings, functional components

Pre-Drying Conditions	120 °C in a dry air (dessiccant) dryer for 2-3 h in an air circulating dryer 100-120 °C for 4-12 h dependant on moisture content
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Processing Injection Moulding	melt temperature 310-330 °C mould temperature 80-130 °C
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Properties	Value	Dimension	Test Norm
Mechanical Properties			
Flexural Modulus	10400	MPa	ISO 178
Flexural Strength	190	MPa	ISO 178
Tensile Modulus	10700	MPa	ISO 527
Tensile Strength at Break	120	MPa	ISO 527
Tensile Elongation at Break	2	%	ISO 527
Impact Strength (Charpy, 23 °C)	40	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy, -40 °C)	40	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy, 23 °C)	10	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy, -40 °C)	7.5	kJ/m ²	ISO 179/1eA
Thermal Properties			
HDT / A (1,8 MPa)	143	°C	ISO 75-1/-2
Electrical Properties			
Surface Resistance	300	Ohm	IEC 62631-3-2
Rheological Properties			
Melt Index (MVR)	5.5	cm ³ /10min	ISO 1133
MVR temperature	300	°C	-
MVR load	1.2	kg	-
Shrinkage (24h)	0.1 - 0.3	%	ISO 294-4
Physical Properties			
Density	1380	kg/m ³	ISO 1183
Tribologic Properties			
Coefficient of Sliding Friction μ (pv = 3*1 MPa*m/s)	0.3	-	ASTM G 137

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Coefficient of Sliding Friction μH ($p v = 3 \cdot 1 \text{ MPa} \cdot \text{m/s}$)	0.18	-	ASTM G 137
Specific Wear Rate w_s ($p v = 3 \cdot 1 \text{ MPa} \cdot \text{m/s}$)	0.28	E-6 mm^3/Nm	ASTM G 137
Linear Wear Rate w ($p v = 3 \cdot 1 \text{ MPa} \cdot \text{m/s}$)	3.1	$\mu\text{m/h}$	ASTM G 137

Flammability

Flammability (1.5 mm)	V-2	class	UL 94
Yellow Card available	yes	-	-
Flammability (3.0 mm)	V-1	class	UL 94
Yellow Card available	yes	-	-
Glow Wire (GWFI, 850°C, 2.0mm)	passed	-	DIN EN 60695