

Technical Data Sheet



ALCOM POM 770/1 MO2

Base Polymer	Polyoxymethylene Copolymer
Filler/Additive System	2 % molybdenum disulphide
Special Features	improved sliding / wear
Market Segment	Automotive, Machinery
Application Area	various

Pre-Drying Conditions	in a dry air (dessiccant) dryer 100-110 °C for 2-3 h in an air circulating dryer 100-110 °C for 3-5 h dependant on moisture content
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Processing Injection Moulding	melt temperature 180-220 °C mould temperature 60-120 °C
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Storage	dry, protected from light
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Properties	Value	Dimension	Test Norm
Mechanical Properties			
Flexural Modulus	2600	MPa	ISO 178
Flexural Stress (3.5% Strain)	65	MPa	ISO 178
Tensile Modulus	2600	MPa	ISO 527
Tensile Stress at Yield	60	MPa	ISO 527
Tensile Elongation at Yield	9	%	ISO 527
Tensile Elongation at Break	28	%	ISO 527
Impact Strength (Charpy, 23°C)	165	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy, -40°C)	120	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy, 23°C)	7	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy, -40°C)	6	kJ/m ²	ISO 179/1eA
Thermal Properties			
Vicat B50	144	°C	ISO 306
HDT / A (1,8 MPa)	98	°C	ISO 75-1/-2
DSC (Melt Point)	170	°C	ISO 11357
Rheological Properties			
Melt Index (MVR)	8	cm ³ /10min	ISO 1133
MVR temperature	190	°C	-
MVR load	2.16	kg	-
Shrinkage (lengthwise, 24h)	2.1 - 2.5	%	ISO 294-4
Shrinkage (lateral, 24h)	2 - 2.4	%	ISO 294-4
Physical Properties			
Density	1410	kg/m ³	ISO 1183

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Tribologic Properties

Coefficient of Sliding Friction μ ($p_v = 5 \cdot 1 \text{ MPa} \cdot \text{m/s}$)	0.37	-	ASTM G 137
Coefficient of Sliding Friction μ_H ($p_v = 5 \cdot 1 \text{ MPa} \cdot \text{m/s}$)	0.19	-	ASTM G 137
Specific Wear Rate w_s ($p_v = 5 \cdot 1 \text{ MPa} \cdot \text{m/s}$)	0.8	E-6 mm^3/Nm	ASTM G 137
Linear Wear Rate w ($p_v = 5 \cdot 1 \text{ MPa} \cdot \text{m/s}$)	14	$\mu\text{m/h}$	ASTM G 137