

Technical Data Sheet



ALCOM PBT 700/1.5 HR GF15 PTFE15

Base Polymer	Polybutylene Terephthalate
Filler/Additive System	15 % glass fibres, 15 % PTFE
Special Features	improved sliding / wear, high stiffness, good hydrolysis resistant, heat stabilised
Market Segment	Automotive, Machinery
Application Area	gear wheels, roller bearings
Typical Applications	functional components, bearings and sliding elements

Pre-Drying Conditions	in a dry air (dessiccant) dryer 100-120 °C for 2-4 h in an air circulating dryer 100-120 °C for 4-8 h dependant on moisture content
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Processing Injection Moulding	melt temperature 250-270 °C mould temperature 80-120 °C
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Storage	dry, protected from light
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Properties	Value	Dimension	Test Norm
Mechanical Properties			
Flexural Modulus	4800	MPa	ISO 178
Flexural Strength	135	MPa	ISO 178
Tensile Modulus	5400	MPa	ISO 527
Tensile Strength at Break	80	MPa	ISO 527
Tensile Elongation at Break	3	%	ISO 527
Impact Strength (Charpy, 23°C)	50	kJ/m²	ISO 179/1eU
Impact Strength (Charpy, -40°C)	47	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy, 23°C)	8	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy, -40°C)	6	kJ/m²	ISO 179/1eA
Thermal Properties			
Vicat B50	202	°C	ISO 306
HDT / A (1,8 MPa)	200	°C	ISO 75-1/-2
DSC (Melt Point)	225	°C	ISO 11357
Rheological Properties			
Melt Index (MVR)	8.5	cm³/10min	ISO 1133
MVR temperature	250	°C	-
MVR load	2.16	kg	-
Shrinkage (lengthwise, 24h)	0.4 - 0.6	%	ISO 294-4
Shrinkage (lateral, 24h)	1 - 1.2	%	ISO 294-4
Physical Properties			
Density	1490	kg/m³	ISO 1183