PA 6 C + OIL

CAST POLYAMIDE 6 WITH OIL

Material description

This high molecular weight thermoplastic is based on PA 6 G and has a fine crystalline structure. With the addition of oil, solid lubricants and stabilisers, this material achieves a high wear resistance and self-lubricating properties. PA 6 G with oil develops its own excellent self-lubricating effect even at low sliding speeds and also withstands greater mechanical loads.

Conformities

RoHS, REACH

Physical properties	Test method	Value	Unit
Density	DIN EN ISO 1183-1	1.15	g/cm3
Water absorbtion	DIN EN ISO 62	1.8	%
Sliding friction		◕	
Abrasion resistance		◕	

Mechanical properties	Test method	Value	Unit
Yield stress	DIN EN ISO 527	80	MPa
Elongation at break	DIN EN ISO 527	40	%
Tensile modulus of elasticity	DIN EN ISO 527	3000	MPa
Notched impact strength	DIN EN ISO 179	>5	kJ/m2
Shore Hardness D	DIN EN ISO 868	82	

Thermal properties	Test method	Value	Unit
Thermal conductivity	DIN 52612-2	0.23	W/(m*K)
Heat capacity	DIN 52612-1	1.7	kJ/(kg*K)
Coefficient of thermal expansion	DIN 53752	80	10^{-6*K}-1
Operating temperature short term		160	°C
Operating temperature long term		-40 bis 105	°C
Heat deflection temperature	DIN EN ISO 75 / A	95	°C
Flammability	UL 94, 3 mm	HB	

Electrical properties	Test method	Value	Unit
Volume resistivity	IEC 60093	10^{15}	Ω * cm
Surface resistivity	IEC 60093	10^{13}	Ω * cm
Dielectric strength	IEC 60243	20	kV/mm

These technical data have been determined as average values by our suppliers from many individual measurements. In all measurements, the test specimens were tested in the dry state. We pass on the data with reservation. The table does not claim to be complete or correct. Material technology is subject to constant further development. No rights or guarantees can be derived from it. Own tests are necessary because the environmental and operating conditions (humidity, temperature, mechanical forces, radiation and chemicals, etc.) set limits in the application.

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