APSOplast® PET-C SL grey

Engineering Plastic Technology
Technical Data Sheet

Application purpose and characteristics

Machine components with high demands in terms of precision and wear resistance. Bearings, sliding elements with high loads capacity and wear resistance.
This material has a homogeneously distributed, integral solid lubricant. The specific material composition results in a unique, self-lubricating material for plain bearings. addition to having a very high wear resistance, this material offers a lower coefficient of friction and higher dynamic load-bearing capacity (PV limit value) than PET-C.

Product description	
Material name, long description	Polyethylene terephthalate
Material name, short description	PET-C
Material Code	PET-C SL.003-00
Density	1.39 g/cm³
Color	grey

Mechanical properties	
Modulus of elasticity and tension	Test value: 3300 MPa Test norm: ISO 527
Tensile strength Yield stress	Test value: 80 MPa Test norm: ISO 527
Elongation at rapture	Test value: 10 % Test norm: ISO 527
Notch impact strength	Test value: 3.6 kJ/m² Test norm: ISO 179/1eA Test parameter: Charpy
Impact strength	Test value: 60 kJ/m² Test norm: ISO 179-1/1eU Test parameter: Charpy, 23 °C
Shore hardness	Test value: 81 Shore D Test norm: ISO 868
Thermal properties	
Max. operating temperature short term	Test value: 160 °C Test norm: IEC 216 Test parameter: 20000h, 50% tensile strength
Coefficient of linear thermal expansion	Test value: 60 * 10^{-6} * K^{-1}

Electrical properties	
Dielectric constant	Test value: 3.3 Test norm: DIN IEC 60250 Test parameter: 1 MHz
Dielectric strength	Test value: 20 kV/mm Test norm: IEC 60243
Surface resistivity	Test value: 10^{13} Ohm Test norm: IEC 60093
Other properties	
Flammability	Test value: HB Test norm: UL 94 Test parameter: Thickness 1.6 mm
Water absorption at saturation	Test value: ~ 0.5 % Test norm: ISO 62 Test parameter: 23 °C

Approvals

- FDA 21 CFR 177.1630, FDA 21 CFR 178.3297, FDA 21 CFR 177.1550
- 1935/2004 EC
- 10/2011 EU
- GMP 2023/2006 EC

EC No.1935:2004

FDA

In compliance with **RoHS** and **REACH** directives.