APSOplast® PET-C

Angst+Pfister

Engineering plastics technology
Technical Data Sheet

Application purpose and characteristics
The specific properties of PET-C make this material particularly suited for mechanical precision and wearing parts.
High mechanical strength, rigidity, and hardness. Very good creep resistance. Low, constant coefficient of friction. Very high wear resistance (comparable to or even higher than polyamides).Very high dimensional stability (better than that of polyacetal).

Material name, short description	PET-C
Material name, based on technical standards	Polyethylene terephthalate
Density	1.36 g/cm³
Color	black
Compound code	PET-C 00.003-01

Mechanical properties

Modulus of elasticity & tension 1	3400 N/mm² ISO 527
Tensile strength	80 N/mm² ISO 527
Yield stress	80 N/mm² ISO 527
Elongation at rupture	10 % ISO 527
Hardness test value	81 Shore D
Impact strength	#ErrorkJ/m² ISO 179-1eU Charpy, 23 °C
Notch impact strength	3.40 kJ/m² ISO 179-1/1eA

Other attributes

Water absorption	-0.5 % ISO 62 23 °C

Thermal attributes

Max. operating temperature long term	100 °C 20000h, 50% tensile strength
Max. operating temperature short term	160 °C
Coefficient of linear thermal expansion 1	60 * 10^{-6} K^{-1} ISO 11359-2
Crystalline melting point	255 °C ISO 3146 Method A
Heat deflection temperature 1	80 °C ISO 75 Method A

Electrical attributes

Comparative tracking index	≥ 450 KA IEC 60112 Level KA / KB
Dielectric dissipation factor 1	0.02 IEC 60250 1 MHz
Dielectric constant 1	3.3 IEC 60250 1 MHz
Dielectric strength 1	20 kV/mm IEC 60243
Volume resistivity	10^{16} Ω*cm DIN IEC 60093

Approvals / Compliance

Food & Beverage	EC No. 1935/2004 incl. last amendments ....

EC No.1935:2004

In compliance with **RoHS** and **REACH** directives.
This information is based on our available data. These values are measured on standard test specimens and are within the normal tolerance range of material properties and do not represent guaranteed property values. Therefore they shall not be used for specification purposes. The customer is solely responsible for quality and suitability of material for his application. He has to test usage and processing prior to use. Angst+Pfister makes no guarantees for the suitability of the material for any given application and assumes no obligation or liability in connection with the information provided above.