APSOplast® PPS GF SL

Angst+Pfister

Engineering plastics technology
Technical Data Sheet

Material name, short description	PPS
Material name, based on technical standards	Polyphenylene sulfide
Density	1.42 g/cm³
Color	dark blue
Compound code	PPS GF SL.004-00

Mechanical properties

Modulus of elasticity & tension 1	4000 N/mm² ISO 527-1,-2
Tensile strength	78 N/mm² ISO 527-1,-2
Yield stress	78 N/mm² ISO 527-1,-2
Elongation at break	3.5 % ISO 527-1,-2
Ball indentation hardness	160 N/mm² ISO 2039-1
Impact strength	#ErrorkJ/m² ISO 179-1/1eU Charpy
Notch impact strength	4.00 kJ/m² ISO 179-1/1eA Charpy

Electrical attributes

Comparative tracking index	100 CTI IEC 60112
Dielectric dissipation factor 1	0.003 DIN IEC 60250 100 Hz
Dielectric constant 1	3.3 IEC 60250 100 Hz / 1 MHz
Dielectric strength 1	24 kV/mm IEC 60243-1
Surface resistivity	≥10^{13} Ω
Volume resistivity	≥10^{14} Ω*cm IEC 60093

Thermal attributes

Min. operating temperature	-20 °C
Max. operating temperature long term	220 °C min. 20000 h
Max. operating temperature short term	260 °C
Coefficient of linear thermal expansion 1	50 * 10^{-6} K^{-1} middle value between 23 and 100 °C
Coefficient of linear thermal expansion 2	60 10-6K-1 middle value between 23 and 150 °C
Coefficient of linear thermal expansion 3	100 10-6K-1 middle value higher then 150 °C
Crystalline melting point	280 °C ISO 11357-1,-3 DSC, 10 °C/min
Heat deflection temperature 1	115 °C ISO 75-1,-2 Methode A: 1.8 N/mm²
Thermal conductivity	0.3 W/(m·K) 23 °C

Other attributes

Moisture absorption	0.05 % at saturation in norm climate 23 °C / 50 % RF
Water absorption	0.2 % Saturation in water 23 °C

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.