

Technical Data Sheet

PPS GF40 black

PPS, glass-fibre reinforced 40 % (black)

Typical Properties

- Very high rigidity through glass-fibre reinforcement
- Very high continuous service temperature
- Inherently flame-retardant

Typical Industries

- Oil and Gas Industry
- Electrical Industry

	Test Method	Unit	Value
General Properties			
Density	DIN EN ISO 1183-1	g / cm ³	1.65
Water absorption	DIN EN ISO 62	%	0.015
Flammability (Thickness 3 mm / 6 mm)	UL 94		V0 / V0
Mechanical Properties			
Yield stress	DIN EN ISO 527	MPa	90
Elongation at break	DIN EN ISO 527	%	2
Tensile modulus of elasticity	DIN EN ISO 527	MPa	6.500
Ball indentation hardness	DIN EN ISO 2039-1	MPa	250
Shore hardness	DIN EN ISO 868	scale D	92
Thermal Properties			
Melting temperature	ISO 11357-3	°C	285
Coefficient of linear thermal expansion	DIN 53752	10 ⁻⁶ / K	30
Service temperature, long term	Average	°C	0 ... 220
Service temperature, short term (max.)	Average	°C	250
Heat deflection temperature	DIN EN ISO 75, Verf. A, HDT	°C	260

The specified values are average values obtained from individual measurements and are up to the latest standards. They are intended merely as information about our products and as an aid to the selection of material. We therefore cannot legally bindingly vouch for specific properties or suitability for specific purposes, as properties may also depend, for example, on the dimensions of the semi-finished products. The short-time maximum operating temperature applies only to applications that involve a low mechanical load during a few hours only. The long-term maximum operating temperature is based on the heat-ageing of the plastics through oxidation, which results in a reduction of the mechanical properties. On thick-walled parts only the surface layer - which can be better protected by the addition of antioxidants - is affected by oxidation at high temperatures. The core normally remains unimpaired. The short-term and long-term maximum operating temperatures depend on pressure and media. The minimum operating temperature is mainly determined by possible impact and shock stresses during operation. The specified values apply to low stresses.