Industriegebiet Brohltal Ost · Im Stiefelfeld 1 · D-56651 Niederzissen · www.akro-plastic.com

PEEK – Polyetheretherketone PEEK GF50

AKROTEK® PEEK GF 50 9 black (5183)

Tensile modulus	Stress at break	Charpy impact strength
19000 MPa	**210 MPa**	**60 kJ/m²**
1 mm/min	**5 mm/min**	**23°C**
ISO 527-2	ISO 527-2	ISO 179-1/1eU

AKROTEK® PEEK GF 50 9 black (5183) is a 50% glass fibre reinforced process improved polyetheretherketone with very high stiffness and strength

Typical applications

Elements in the automotive-, aeronautical-, industrial- and medical engineering that require high strength in a temperature environment above 150°C

Mechanical Properties

Tensile modulus (1 mm/min | ISO 527-2) d.a.m.	19000 MPa
Stress at break (5 mm/min | ISO 527-2) d.a.m.	210 MPa
Strain at break (5 mm/min | ISO 527-2) d.a.m.	1,8 %
Flexural modulus (2 mm/min | ISO 178) d.a.m.	19000 MPa
Flexural strength (2 mm/min | ISO 178) d.a.m.	320 MPa
Flexural strain at break (2 mm/min | ISO 178) d.a.m.	2 %
Charpy impact strength (23°C | ISO 179-1/1eU) d.a.m.	60 kJ/m²
Charpy notched impact strength (23°C | ISO 179-1/1eA) d.a.m.	10 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A (1,8 MPa | ISO 75)	> 280 °C
Temperature of deflection under load HDT/C (8 MPa | ISO 75)	260 °C
Melt temperature (DSC, 10K/min | DIN EN 11357-1)	342 °C

Flammability

Burning rate (UL 94) 1,6mm Wall thickness	V-0 Class

General properties

Density (23°C | ISO 1183)	1,73 g/cm³

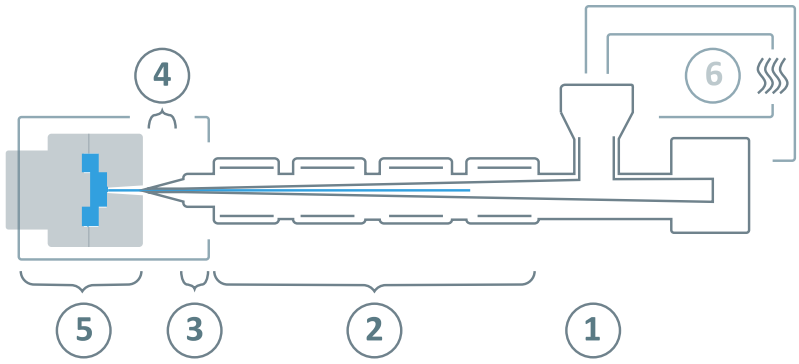
Industriegebiet Brohltal Ost · Im Stiefelfeld 1 · D-56651 Niederzissen · www.akro-plastic.com

PEEK – Polyetheretherketone PEEK GF50

AKROTEK® PEEK GF 50 9 black (5183)

Processing information

The listed values are recommendations. Higher values should be used for higher glass loadings. We recommend only de-humidifying or vacuum dryers. Extensive drying can cause filling problems and surface defects.



6	Drying time	2 - 3 h
	Drying temperature (τ ≤ -30°C)	150 - 160°C
	Processing moisture	< 0,02%
1	Feed section	60 - 80°C
2	Temperature zone 1 - Zone 4	365 - 390°C
3	Nozzle temperature	400°C
4	Melt temperature	370 - 400°C
5	Mold temperature	160 - 200°C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 bar
	Injection speed	medium to high
	Screw speed	5 - 10 m/min