

AKROTEK® PEEK CF 40 9 black (5182)

Polyetheretherketone

AKRO-PLASTIC GmbH

Message:

AKROTEK® PEEK CF 40 9 black (5182) is a 40% carbon fibre reinforced process improved polyetheretherketone with high flexural strength and good sliding properties
Applications are mainly elements in the automotive-, aeronautical-, industrial- and medical engineering that require high strength and high stiffness in a temperature environment above 150°C

General Information			
Filler / Reinforcement	Carbon Fiber,40% Filler by Weight		
Features	High Stiffness		
	High Strength		
Uses	Aerospace Applications		
	Automotive Applications		
	Industrial Applications		
	Medical/Healthcare Applications		
Appearance	Black		
Resin ID (ISO 1043)	PEEK CF40		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.44	g/cm³	ISO 1183
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	31500	MPa	ISO 527-2/1
Tensile Stress (Break)	235	MPa	ISO 527-2/5
Tensile Strain (Break)	1.1	%	ISO 527-2/5
Flexural Modulus ¹	30000	MPa	ISO 178
Flexural Stress ²	345	MPa	ISO 178
Flexural Strain at Break ³	1.4	%	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	5.0	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	36	kJ/m²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
1.8 MPa, Unannealed	> 280	°C	ISO 75-2/A
8.0 MPa, Unannealed	260	°C	ISO 75-2/C
Melting Temperature ⁴	342	°C	DIN EN 11357-1
Flammability	Nominal Value	Test Method	
Flame Rating (1.60 mm)	V-0	UL 94	
NOTE			

1.	2.0 mm/min
2.	2.0 mm/min
3.	2 mm/min
4.	10 K/min, DSC

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