

LUVOCOM 3F PEKK 50082 Filament

Polyether Ketone Ketone (PEKK) is a semi-crystalline thermoplastic in the Polyaryletherketone family. With high heat resistance, chemical resistance, has the ability to withstand high mechanical loads, is inherent flame retardant and has unique tribological properties.

PEKK Filament has a tuneable crystallization rate which allows FFF or FDM users to take advantage of both the extreme performance of PAEKs and easier processing of amorphous materials; PEKK Filament is easier to print than regular PEEK filament with a better layer adhesion, while offering similar strength and resistance properties; better dimensional stability. PEKK has a higher Tg than PEEK of 15°C.

LUVOCOM® 3F PEKK 50082 is engineered to outperform the standard PEKK materials available in the market. It comes with enhanced flow behaviour which improves the printability and layer adhesion. This unique modified neat PEKK provides dimensional stability and is printable in non-heated chambers, delivering semi-crystalline parts with no warp.

MECHANICAL DATA	CONDITIONS	TEST METHOD	TYPICAL VALUE
Tensile Strength	23 °C/50% rh	ISO 527	90 MPa
Elongation at maximum force	23 °C/50% rh	ISO 527	5%
Modulus of elasticity	23 °C/50% rh	ISO 527	3 GPa
Flexural Strength	23 °C/50% rh	ISO 178	150 MPa
Flexural Modulus	23 °C/50% rh	ISO 178	2.5 GPa
Flexural elongation at max. force	23 °C/50% rh	ISO 178	6%
Charpy impact strength	23 °C/50% rh	ISO 179 1eU	NB
THERMAL DATA			
Heat Distortion Temp.			
Continuous Service Temp.	23 °C/50% rh	IEC 60216	255 °C
Service temperature	During lifetime max. 200h		300 °C
PHYSICAL DATA			
Specific Gravity		ISO 1183-3	1,27 g cm ⁻³
Water Absorption	23 °C/24h	ISO 62	<0.1%
Melt Volume Rate	MVR 380 °C/2,16 kg	ISO1133	20 cm ³ /10 min
Linear Mould Shrinkage		DIN 16742	1,0-1.6%
Flammability Behaviour		UL 94	(V-0)

PRINT RECOMMENDATIONS	
Nozzle temperature	360°C (340-380°C)
Bed Temperature	110-140°C
Print Speed	20-50 mm/s
Drying Instruction	4 hours, 110°C
Bed Adhesion	PEI Sheet

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