

## PEKK-A Filament

PEKK-A Filament (PolyEtherKetoneKetone) is high performance 3D printing optimised material with great processability. This material is a member of the high-performance Poly Aryl Ether Ketone (PAEK) family like PEEK. We used the PEKK 6000 series to produce the filament which is an amorphous grade with a slow crystallization rate and a high flow. This results in enhanced Z layer strength and provides ease during the FFF / FDM printing process. Typically the PEKK is being used by demanding industries like the aerospace, energy and transportation sector.

Why you should choose this filament:

- Better printability compared to PEEK
- High temperature resistance
- High chemical resistance
- Light weight & High tensile strength
- Inherently flame resistant (UL94 V-0)

MATERIAL PROPERTIES	TYPICAL VALUE	TEST METHOD
Density	1.27 g/cm <sup>3</sup>	ISO 1183
Compression Strength	108 MPa	ISO 604
Charpy notched impact strenght	5.5 kJ/m <sup>2</sup> (+24°C)	ISO 179/1eA
Charpy notched impact strenght	5.5 kJ/m <sup>2</sup> (-30°C)	ISO 179/1eA
Glass Transition, 20°C/min	158 °C	-
Temp. of deflection under load	139 °C (1.80 MPa)	ISO 75-1/-2
Flammability Rating	V-0 @ 0.8 mm	UL 94
Specific Heat Capacity	1 J/(g K), 23°C	-
Surface Resistivity	1E16 Ohm, 23°C	ASTM D257

\* Data based on injection molded samples

PRINT RECOMMENDATIONS	
Nozzle Temperature	350-400°C
Bed Temperature	120-160°C
Chamber Temperature	70-150°C
Drying recommendations	6-8 hours, 120°C

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**Additional info:** To get the best results while printing we advise you to keep the 3D printer in a room where there is hardly any draft and/or temperature fluctuations. Keep the 3D printer out of direct sunlight. When the 3D printer is not being used it is important to keep the 3D4Makers filament in a bag and stored in a cool, dry and dark place until it is used again.

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