



Amourphous PEKK

Part of the polyaryletherketone family, Amorphous PEKK is a high-performance material with exceptional strength, durability, heat resistance, and hydrocarbon resistance. Designed specifically for additive manufacturing, Amorphous PEKK is one of the easiest-to-print high-performance polymers while still being suitable for demanding applications in aerospace, automotive, railways, and more.

- Up to 150°C continuous use temperature
- Flame retardant – eligible to UL94-V0
- Complies with the RoHS and REACH standards

2-year AON3D warranty.

Get Process Parameters at [DOCS.AON3D.COM](https://docs.aon3d.com)

Filament Properties

Properties	Test Methods	Values
Diameter	INS-6712	1.75 ± 0.1 mm
Density	ISO 1183-1	1.261 g/cm ³
Melt Flow Index (MFI)	ISO 1133-1 (@380°C – 5 kg)	37 – 47 g/10 min
Glass Transition Temperature (T _g)	ISO 11357-1	159 °C
Melting Temperature (T _m)	ISO 11357-1	308 °C

Printed Specimens Properties

Properties	Test Methods	XY	ZX
Maximum Use T°	-	150 °C	150 °C
Thermal Conductivity	ASTM E1530-11	0.21 W/mK	-
Heat Distortion Temperature (HDT) (0,45Mpa)	ISO 75	154 °C	-
Heat Distortion Temperature (HDT) (1,8Mpa)	ISO 75	150 °C	-
Coefficient of Thermal Expansion	SO 11359-2/ASTM E228 (-30°C to 100°C)	53 um/m/K	50 um/m/K
Dielectric Strength	IEC 60243-1 (100um)	84 KV/mm	-
Relative Permittivity	IEC 60250 (1 MHz)	2.5	-
Loss Tangent	IEC 60250 (1 kHz)	0.007	-
Surface Resistivity	ASTM D257	10 ¹⁶ Ohms/m ²	-
Volume Resistivity	ASTM D257	10 ¹⁶ Ohms/m ²	-

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Printed Specimens Properties

Properties	Test Methods	XY	ZX
CTI (Comparative Tracking Index)	IEC 60112:2009	150 V	200 V
Total Mass Loss (TML)	ASTM E595	0.27 %	0.27 %
Collected Volatile Condensable Material (CVCM)	ASTM E595	< 0.01 %	< 0.01 %
Water Vapor Recovered (WVR)	ASTM E595	0.29 %	0.29 %
Tensile Modulus	ISO 527-2/5A/50	2.972 MPa	2.700 MPa
Tensile Strength	ISO 527-2/5A/50	92.1 MPa	76.9 MPa
Tensile Strain at Strength	ISO 527-2/5A/50	5.8 %	4 %
Tensile Stress at Break	ISO 527-2/5A/50	70.7 MPa	76.9 MPa
Tensile Strain at Break (type A)	ISO 527-2/5A/50	5.6 %	4 %
Tensile Strain at Break (type B et C)	ISO 527-2/5A/50	6.6 %	-
Flexural Modulus	SO 11359-2/ASTM E228	2.638 MPa	2.228 MPa
Flexural Stress at Conventional Deflection (3,5% strain)*	IEC 60243-1 (100um)	88.2 MPa	79.5 MPa
Compressive Modulus	IEC 60250 (1 MHz)	3,000 MPa	
Compressive Yield Strength	IEC 60250 (1 kHz)	150 MPa	
Strain at Yield	ASTM D257	7 %	
Charpy Impact Resistance	ASTM D257	15.529 kJ/m2	3.972 kJ/m2
Shore Hardness	ASTM D257	79.9D	-

*According to ISO 178, end of the test at 5% deformation even if there is no specimen break.

*The data should be considered as indicative values - Properties can be influenced by production conditions.