

INTAMSYS® PEEK

INTAMSYS® PEEK is a high performance thermoplastic, PolyEtherEtherKetone (PEEK). It is semi crystalline, FDA food contact compliant. It offers high strength and stiffness as well as high heat resistance. Also, chemically resistant to aggressive environments, suitable for sterilisation for medical and food contact applications.

PHYSICAL PROPERTIES	TEST METHOD	UNITS	TYPICAL VALUE
Density	ISO 1183, Crystalline	g/cm ³	1.30
Glass transition temperature	ISO 11357	°C	143
Melting Point	ISO 11357	°C	343
Heat Deflection Temperature	ISO 75-f, 1.8 MPa	°C	152
Thermal Conductivity	ISO 22007-4, 23°C	W m ⁻¹ K ⁻¹	0.29
Melt index	ISO 1133, 380°C, 5 kg	g/10min	14
Shore D Hardness	ISO 868, 23°C	-	85
Water Absorption by immersion (3.2mm thick Tensile Bar)	ISO 62-1, 24h, 23°C	%	0.07
	Equilibrium, 23°C	%	0.4

MECHANICAL PROPERTIES ¹	TEST METHOD	UNITS	TYPICAL VALUE
Tensile strength	ISO 527	MPa	99.9
Young's modulus	ISO 527	MPa	3738
Elongation at break	ISO 527	%	9.1
Flexural strength	ISO 178	MPa	147.0
Flexural modulus	ISO 178	MPa	3612
Impact strength	ISO 179, Notched	kJ/m ²	7.1

Note:

- All testing specimens were printed using a FUNMAT HT 3D PRINTER under the following conditions:
 Printing temperature = 400 °C, printing speed = 45 mm/s, number of shells = 2, and 100% infill.
 All specimens were annealed at 200 °C for 2h prior to testing.

Disclaimer

The typical values presented in this document are intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. Actual values may vary significantly with printing conditions. End-use performance of printed parts properties can be impacted by, but not limited to, part design, environmental conditions, printing conditions, etc. Product specifications are subject to change without notice.

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