

INTAMSYS[®] PPS

Product Description

INTAMSYS[®] PPS is an advanced PolyPhenylene Sulfide based filament designed specifically for FDM/FFF 3D printing. It is a semi crystalline, high temperature engineering thermoplastic. Due to its structure, PPS is a very chemically resistant polymer with very good mechanical strength, even at high temperatures. In addition to its low water absorption, it also has good dimensional stability and excellent electrical properties.

PHYSICAL PROPERTIES	TEST METHOD	UNITS	TYPICAL VALUE
Density	ISO 1183	g/cm ³	1.38
Glass transition temperature	DSC, 10°C /min	°C	86
Melting Temperature	DSC, 10°C /min	°C	300
Heat Deflection Temperature	ASTM D648, 0.45MPa	°C	180
Melt index	300°C, 2.16 kg	g/10min	38

MECHANICAL PROPERTIES ¹	TEST METHOD	UNITS	TYPICAL VALUE
Tensile strength	ISO 527	MPa	64.8
Young's modulus	ISO 527	MPa	2680
Elongation at break	ISO 527	%	5.6
Flexural strength	ISO 178	MPa	116.3
Flexural modulus	ISO 178	MPa	2700
Impact strength	ISO 179, Notched	kJ/m ²	5.2

Note:

- All testing specimens were printed using a FUNMAT HT 3D PRINTER under the following conditions:
Printing temperature = 330 °C, printing speed = 45 mm/s, number of shells = 2, and 100% infill.

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.

Each user is responsible for determining the safety, lawfulness, technical suitability, and disposal/recycling practices of INTAMSYS materials for the intended application. INTAMSYS makes no warranty of any kind, unless announced separately, to the fitness for any particular use or application. INTAMSYS shall not be made liable for any damage, injury or loss induced from the use of INTAMSYS materials in any particular application.