Technical Datasheet

INTAMSYS

INTAMSYS® PPS

Product Description

INTAMSYS® PPS is an advanced **P**oly**P**henylene **S**ulfide 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	120

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

OTHER PROPERTIES	TEST METHOD	UNITS	TYPICAL VALUE
Flammability (raw material)	UL94, 0.8mm	—	V0

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

For further details, please contact info@intamsys.com