

PPSU-FDM

Product Description

INTAMSYS® PPSU is an amorphous high performance thermoplastic, PolyPhenylSulfone, which offers good impact resistance and chemical resistance. PPSU can operate in temperatures up to 180°C. PPSU has superior hydrolysis resistance when compared to other amorphous thermoplastics as measured by steam autoclaving cycles, it has virtually unlimited steam sterilizability. It also resists common acids and bases over a broad temperature range. It's noted that PPSU can be used in repeated food contact under the review of U.S. FDA food contact regulation.

PHYSICAL PROPERTIES	TEST METHOD	UNITS	TYPICAL VALUE
Density	ISO 1183	g/cm ³	1.29
Glass transition temperature	DSC, 10°C /min	°C	220
Heat Deflection Temperature	ISO 75	°C	198

MECHANICAL PROPERTIES ¹	TEST METHOD	UNITS	TYPICAL VALUE
Tensile strength	ISO 527	MPa	68.4
Flexural strength	ISO 178	MPa	124.5
Flexural modulus	ISO 178	MPa	3114
Impact strength	ISO 179, Notched	kJ/m ²	21.8

Note:

- All testing specimens were printed using a FUNMAT HT 3D PRINTER under the following conditions: Printing temperature = 390 °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.