Technical Datasheet

INTAMSYS

INTAMSYS® PPA-CF

Product Description

INTAMSYS® PPA-CF is specially developed for FDM 3D printing process, and its substrate material is high temperature nylon, which has low density, low moisture absorption, high strength, high abrasion resistance, excellent chemical resistance and high heat resistance. It also has good dimensional stability, no warpage and no shrinkage during the printing process, and can be used with INTAMSYS® SP5010 Quick-Remove Support material to solve the problem of poor molding effect on the support surface of complex models.

PHYSICAL PROPERTIES	TEST METHOD	UNITS	TYPICAL VALUE
Density	ISO 1183	g/cm^3	1.20
Melting Point	ISO 11357	°C	237
Melt index	300°C, 2.16kg	g/10min	3.4
Heat Deflection Temperature (unannealed)	ISO 75: Method A, 0.45 MPa	°C	84
Heat Deflection Temperature (annealed)	ISO 75: Method A, 0.45 MPa	°C	191
Water Absorption	ISO 62: Method 1	%	1.37

MECHANICAL PROPERTIES[1]	ORIENTATION	TEST METHOD	UNITS	TYPICAL VALUE（Before Annealing）
Tensile strength	XY	ISO 527	MPa	81.7
Young's modulus	XY	ISO 527	MPa	6945
Elongation at break	XY	ISO 527	%	2.0
Flexural strength	XY	ISO 178	MPa	167.5
Flexural modulus	XY	ISO 178	MPa	6261
Impact strength	XY	ISO 179, Notched	kJ/m^2	20.1
Tensile strength	Z	ISO 527	MPa	30.2
Young's modulus	Z	ISO 527	MPa	2977
Elongation at break	Z	ISO 527	%	1.3

Notes:
1. All testing specimens were printed using a FUNMAT 3D PRINTER under the following conditions: Printing temperature = 300°C, Flow=96%, and infill=100%.
2. Annealing condition: 100℃ for 8h in an oven.

For further details, please contact info@intamsys.com

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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 impact 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.

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