

# INTAMSYS® NYLON

INTAMSYS® NYLON is a nanoclay reinforced Nylon 6/6,6 copolymer based 3D printing filament with improved dimensional stability and mechanical properties.

PHYSICAL PROPERTIES	TEST METHOD	UNITS	TYPICAL VALUE
Density	ISO 1183	g/cm <sup>3</sup>	1.24
Glass transition temperature	DSC, 10 °C /min	°C	67
Melting temperature	DSC, 10 °C/min	°C	190
Crystallization temperature	DSC, 10 °C/min	°C	128
Vicat Softening temperature	ISO 306	°C	181
Melt index	260°C, 2.16 kg	g/10min	6.2
Decomposition temperature	TGA, 20 °C/min	°C	370

MECHANICAL PROPERTIES <sup>1</sup>	TEST METHOD	UNITS	TYPICAL VALUE
Tensile strength	ISO 527	MPa	72.7
Young's modulus	ISO 527	MPa	2595
Elongation at break	ISO 527	%	4.6
Flexural strength	ISO 178	MPa	123.1
Flexural modulus	ISO 178	MPa	1681
Impact strength	ISO 179, Notched	kJ/m <sup>2</sup>	8.1

Note:

- All testing specimens were printed using a FUNMAT HT 3D PRINTER under the following conditions:  
 Printing temperature = 265 °C, printing speed = 45 mm/s, number of shells = 2, and 100% infill.  
 All specimens were annealed at 80 °C for 30 min and dried for 48h 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 impact by, but not limited to, part design, environmental conditions, printing conditions, etc. Product specifications are subject to change without notice.

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