

# INTAMSYS® PC-PBT

## Product Description

**INTAMSYS® PC-PBT** (polycarbonate/polybutylene terephthalate terpolymer blend) is a thermoplastic alloy, which is designed specifically for FDM/FFF 3D printing. It offers good heat resistance and toughness at low temperature (-20°C/-30°C), and also features good chemical resistance.

| PHYSICAL PROPERTIES          | TEST METHOD    | UNITS             | TYPICAL VALUE |
|------------------------------|----------------|-------------------|---------------|
| Density                      | ISO 1183       | g/cm <sup>3</sup> | 1.2           |
| Glass transition temperature | DSC, 10°C /min | °C                | 140           |
| Melting temperature          | DSC, 10°C /min | °C                | 223           |
| Heat deflection temperature  | ISO 75 1.8MPa  | °C                | 91            |
| Melt index                   | 260°C, 5 kg    | g/10min           | 16-22         |

| MECHANICAL PROPERTIES <sup>1</sup> | TEST METHOD      | UNITS             | TYPICAL VALUE |
|------------------------------------|------------------|-------------------|---------------|
| Tensile strength                   | ISO 527          | MPa               | 43.2          |
| Young's modulus                    | ISO 527          | MPa               | 2100          |
| Elongation at break                | ISO 527          | %                 | 6.9           |
| Flexural strength                  | ISO 178          | MPa               | 56.7          |
| Flexural modulus                   | ISO 178          | MPa               | 1938          |
| Impact strength                    | ISO 179, Notched | kJ/m <sup>2</sup> | 26.9          |

Note:

- All testing specimens were printed using a FUNMAT HT 3D PRINTER under the following conditions:  
Printing temperature = 270 °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 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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