

Material Data Sheet

PET



General Information

Extruded amorphous Polyethylene Terephthalate (PET) for 3D printing with a wide operating window for easy use. The lower printing temperatures provide for less energy consumption and a smaller environmental impact and carbon footprint. This high definition odourless filament conforms to tight diameter and ovality tolerances and enables print details with precision, very good surface and high resolution. It exhibits excellent colour coverage and batch-to-batch colour consistency. It is more resistant to heat than PLA.

3D processing method: FFF (Fused Filament Fabrication)

Form: wound on a spool

Packaging: packed in a hermetically sealed plastic bag with silica gel

Physical Properties	Conditions	Value	Unit	Standard
Density	23°C	1,33	g/cm ³	ISO 1183/A
Melt Flow Rate	285°C / 2,16 kg	47 ± 8	g/10 min.	ISO 1133

Thermal Properties	Conditions	Value	Unit	Standard
Glass Transition Temperature	n/a	70	°C	DSC

Mechanical Properties (Injection Moulded)	Conditions	Value	Unit	Standard
Tensile Modulus	23°C	2 500	MPa	ISO 527
Tensile Yield Strength	23°C	74	MPa	ISO 527
Elongation at Tensile Yield	23°C	4	%	ISO 527
Tensile Strength at Break	23°C	74	MPa	ISO 527
Elongation at Tensile Break	23°C	4	%	ISO 527
Charpy Impact Strength Unnotched	23°C	22,4	kJ/m ²	ISO 179/1eU

Printing Conditions

Processing Method: FFF (Fused Filament Fabrication)

Drying: Dry at 60°C for 6-12 hours before printing. Always keep filament dry (in a dry box or sealed bag).

Nozzle Temperature (°C): 210 ± 20

Speed (mm/s): 60 ± 20

Bed temperature (°C): 70 ± 10 (depending on the conditions and complexity of the print, bed heating can be turned off).

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Compliance

This material is compliant with:

- **REACH:** Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the *Registration, Evaluation, Authorisation and Restriction of Chemicals* (REACH)
- **RoHS 2:** Directive 2011/65/EU

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