

TECHNICAL DATA SHEET

PET-G

Description

Recreus PET-G is a highly modified PET copolymer amorphous, which belongs to the family of PET products commonly known as "PETG" (PET Glycol modified). Has been specially designed for 3D printing extrusions. With the excellent melt strength, makes ideally suitable for extrusion in FDM 3D printers.

Physical Property	Value	Unit	Test method according to
Material density	1,290	g/cm3	ISO 1183
	1290,000	kg/m3	ISO 1183
Melt flow rate (230°C/2,16kg)	0,000	g/10min	ISO 1133

Mechanical Property	Value	Unit	Test method according to
MEF Flexural Modulus Elasticity	2040,00	MPa	DIN ISO 7619-1 (3s)
Tensile modulus (Young)	3020	MPa	ISO 527
Tensile strength	50,00	MPa	DIN 53504-S2
Yield strength	50,00	MPa	DIN 53504-S2
Elongation at break	31	%	DIN 53504-S2
Izod impact strength (23°C notched)	4,4	kJ/m2	ISO 34-1
Izod impact resistant (23°C unnotched)	NB	kJ/m2	ISO 4649
Notched impact strength (Charpy)n at +23°C	58,00	kJ/m2	ISO 179

Thermal Property	Value	Unit	Test method according to
Glass Transition Temperature 10°C/min	80,0	°C	ISO 11357-1/-2
HDT (0,45MPa)	68,0	°C	ISO 75-2
HDT (01,82MPa)	62,0	°C	ISO 75-2
VST Vicat Softening Temperature	78,0	°C	Vicat A Method: 50 Nw, 50°C/h

Printing properties	Recommended
Printing temperatures	230 - 260°C
Printing speed	20 - 100 mm/s
Hot-bed temperature	40-70°C
Optimal layer height	0.2 mm
Minimal nozzle diameter	0.1-0.4 mm or higher
Retraction parameters	3.5 - 6.5 mm (speed 20 - 160 mm/s)