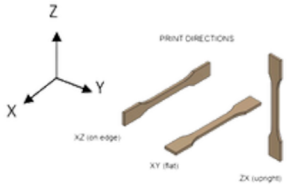
Technical data sheet

KRATIR PETG CF

Material class: Polyethylene Terephthalate Glycol / Carbon Fiber

High Stiffness - Strength & Easy Printing

- Dimension stable
- Low moisture uptake



Property	Method	Units	Value XZ** (on edge)	Value ZX** (upright)
Mechanical properties				
Tensile Modulus	ISO 527 Type 1BA	MPa	8800	2200
Tensile Strength at yield	ISO 527 Type 1BA	MPa	no yield	no yield
Tensile Strength at break	ISO 527 Type 1BA	MPa	108	27
Elongation at yield	ISO 527 Type 1BA	%	no yield	no yield
Elongation at break	ISO 527 Type 1BA	%	2.4	1.6
Flexural Modulus	ISO 178	Mpa	4200	2900
Flexural Stress at break	ISO 178	Mpa	56	26
Flexural Strain at break	ISO 178	%	4.4	1.6
Impact Strength	ISO 180	J/m		
Impact Strength	ISO 180	kJ/m2		

** XZ/ZX Bars cut out of 3D printed plates on edge and in Z direction printed according to guidelines

Property	Method	Units	Value
Thermal properties			
Glass transition temperature (Tg)	ISO 11357-1	°C	
Melting temperature	ISO 11357-3	°C	
Vicat softening temperature	ISO 306/B50	°C	
Temp. of deflection under load (1.80 Mpa)*	ISO 75-1/-2	°C	73.4
Temp of deflection under load (0.45 Mpa)*	ISO 75-1/-2	°C	74.1
Physical properties			
Filament diameter (+/- 0.05 mm)		mm	1.75/2.85
Density	ISO 1183-1	g/cm3	1.31
Humidity absorption (70 °C, 62% r.H.)*	ISO1110	%	
Water absorption (23 °C saturated)*	ISO 62	%	

* Injection moulding data

Recommended processing conditions	
Nozzle temperature	Recommended 265 °C (260 °C - 280 °C)
Bed temperature	Recommended 70 °C (60 °C - 80 °C)
Chamber temperature	Recommended 50 °C (23 °C - 90 °C) ambient temperature possible
Bed material	(Textured) PEI Sheet, Glass, Carbon Fiber Plate
Adhesion promoter	Magigoo Original
Nozzle diameter	≥ 0.6mm, hardened steel nozzle
Drying instructions filament	60 °C for 6-8 hours