Tectonic 3D

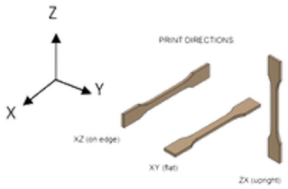
Technical data sheet

KRATIR PA6/66 CF

Material class: Polyamide 6/66 / Carbon Fiber

High Speed Printing & High Z-Strength

- High speed: 16 mm³/s (150mm/s)
- Easy printing
- Excellent surface finish



Property	Method	Units	Value XZ** (on edge)	Value ZX** (upright)
Mechanical properties				
Tensile Modulus	ISO 527 Type 1BA	MPa	8500	3900
Tensile Strength at yield	ISO 527 Type 1BA	MPa	no yield	no yield
Tensile Strength at break	ISO 527 Type 1BA	MPa	123	47
Elongation at yield	ISO 527 Type 1BA	%	no yield	no yield
Elongation at break	ISO 527 Type 1BA	%	2.5	3.7
Flexural Modulus	ISO 178	Mpa	7690	2165
Flexural Stress at break	ISO 178	Mpa	159	52
Flexural Strain at break	ISO 178	%	3	2.9
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	58
Melting temperature	ISO 11357-3	°C	197
Vicat softening temperature	ISO 306/B50	°C	
Temp. of deflection under load (1.80 Mpa)*	ISO 75-1/-2	°C	153
Temp of deflection under load (0.45 Mpa)*	ISO 75-1/-2	°C	184
Physical properties			
Filament diameter (+/- 0.05 mm)		mm	1.75/2.85
Density	ISO 1183-1	g/cm3	1.17
Humidity absorption (70 °C, 62% r.H.)*	ISO1110	%	2.8
Water absorption (23 °C saturated)*	ISO 62	%	9.8

* Injection moulding data

Recommended processing conditions

Nozzle temperature	Recommended 265 °C (250 °C - 270 °C)
Bed temperature	Recommended 100 °C (60 °C - 100 °C)
Chamber temperature	Recommended 90 °C (23 °C - 90 °C) ambient temperature possible
Bed material	(Textured) PEI Sheet, Glass, Carbon Fiber Plate
Adhesion promoter	Magigoo PA
Nozzle diameter	≥ 0.6mm, hardened steel nozzle
Print speed	Recommended: 80 mm/s (50-150 mm/s)
Max. volumetric speed (high speed)	16 mm^3/s (150mm/s)
Drying instructions filament	80 °C for 6-8 hours