Tectonic 3D

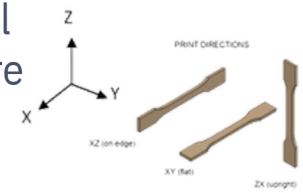
Technical data sheet

ANASA TPC L80A

Material class: Thermoplastic Copolyester

Flexibility & High Temperature Resistance

- Offers better resistance to warpage and fatigue, as well as better protection against UV, chemical & oil exposure compared to TPU
- **50% bio-based**



Property	Method	Units	Value XZ** (on edge)	Value ZX** (upright)
Mechanical properties				
Tensile Modulus	ISO 527 Type 1BA	MPa	25	22
Tensile Strength at yield	ISO 527 Type 1BA	MPa	10	6
Tensile Strength at break	ISO 527 Type 1BA	MPa	10	6
Elongation at yield	ISO 527 Type 1BA	%	590	110
Elongation at break	ISO 527 Type 1BA	%	600	150
Flexural Modulus	ISO 178	Mpa		
Flexural Stress at break	ISO 178	Mpa		
Flexural Strain at break	ISO 178	%		
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	-35
Melting temperature	ISO 11357-3	°C	158
Vicat softening temperature	ISO 306/B50	°C	
Temp. of deflection under load (1.80 Mpa)*	ISO 75-1/-2	°C	
Temp of deflection under load (0.45 Mpa)*	ISO 75-1/-2	°C	
Physical properties			
Filament diameter (+/- 0.05 mm)		mm	1.75/2.85
Density	ISO 1183-1	g/cm3	1.10
Humidity absorption (70 °C, 62% r.H.)*	ISO1110	%	0.04
Water absorption (23 °C saturated)*	ISO 62	%	0.15

* Injection moulding data

Recommended processing conditions	
Nozzle temperature	Recommended 245 °C (260 °C - 280 °C)
Bed temperature	Recommended 40 °C (40 °C - 60 °C)
Chamber temperature	Recommended 23 °C (23 °C - ambient temperatures)
Bed material	(Textured) PEI Sheet, Glass, Carbon Fiber Plate
Adhesion promoter	Magigoo Flex
Nozzle diameter	≥ 0.4mm
Print speed	Recommended: >20 mm/s (20-90mm/s)
Drying instructions filament	N/A