Tectonic 3D

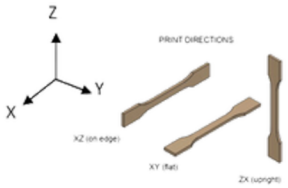
Technical data sheet

AURA ABS EC

Material class: Acrylonitrile Butadiene Styrene

Easy Printing & Color Consistent

- Made from high purity ABS
- Used in automotive interior applications
- **Also available in a 90% bio-mass balanced version**



Property	Method	Units	Value XZ** (on edge)	Value ZX** (upright)
Mechanical properties				
Tensile Modulus	ISO 527 Type 1BA	MPa	2600	2478
Tensile Strength at yield	ISO 527 Type 1BA	MPa	41	no yield
Tensile Strength at break	ISO 527 Type 1BA	MPa	32	22.3
Elongation at yield	ISO 527 Type 1BA	%	2.6	no yield
Elongation at break	ISO 527 Type 1BA	%	9.5	1.4
Flexural Modulus	ISO 178	Mpa	1923	1564
Flexural Stress at break	ISO 178	Mpa	65.3	25.5
Flexural Strain at break	ISO 178	%	4.85	1.5
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	108
Temp. of deflection under load (1.80 Mpa)*	ISO 75-1/-2	°C	83
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	1.05
Humidity absorption (70 °C, 62% r.H.)*	ISO1110	%	
Water absorption (23 °C saturated)*	ISO 62	%	

* Injection moulding data

Recommended processing conditions

Nozzle temperature	Recommended 270 °C (260 °C - 280 °C)
Bed temperature	Recommended 100 °C (80 °C - 110 °C)
Chamber temperature	Recommended 23 °C (23 °C - 90 °C)
Bed material	(Textured) PEI Sheet, Glass, Carbon Fiber Plate
Adhesion promoter	Magigoo Original
Nozzle diameter	≥ 0.4mm
Print speed	Recommended: >80 mm/s (20-210 mm/s)
Drying instructions filament	60 °C for 2-3 hours