

Technical Data Sheet

Onyx

Micro carbon fibre filled nylon, 3D printing (FDM)

Typical Properties

- High stiffness and strength for a 3D printing material
- Very good surface finish
- Chemically resistant
- Can be combined with continuous fibre reinforcement (carbon, Kevlar, fibreglass)

Typical Industries

- Prototyping
- Jigs, fixtures and tooling
- Mechanical engineering
- Product development

	Test Method	Unit	Value
General Properties			
Density		g / cm ³	1.2
Mechanical Properties			
Tensile modulus	ASTM D638	MPa	2400
Tensile stress at yield	ASTM D638	MPa	40
Tensile stress at break	ASTM D638	MPa	37
Tensile strain at break	ASTM D638	%	25
Flexural strength	ASTM D7901	MPa	71
Flexural modulus	ASTM D7901	MPa	3000
Izod impact strength (notched)	ASTM D256-10, Method A	J / m	330
Thermal Properties			
Heat deflection temperature (0.45 MPa)	ASTM D648, Method B	°C	145

The stated values are average values based on test specimens produced by the additive manufacturing process (FDM). They serve only as information about our product range and as an aid to material selection. The actual properties of manufactured parts additionally depend on print parameters, layer build-up and part geometry; we do not thereby provide any legally binding assurance of specific properties or of suitability for a particular purpose.