

## Fishy Filaments' OrCA<sup>®</sup> by Fillamentum

Mechanical properties	Typical Value	Test Method	Test Condition
Tensile strength at yield	-	ISO 527-2	10 mm/min, 23 °C
Tensile strength at break	72 MPa	ISO 527-2	10 mm/min, 23 °C
Elongation at break	16 %	ISO 527-2	10 mm/min, 23 °C
Tensile modulus	3600 MPa	ISO 527-2	10 mm/min, 23 °C
Flexural strength	-	ISO 178	
Flexural modulus	2500 MPa	ISO 178	
Hardness	77 Shore D	ISO 7619	
Charpy impact strength	160 kJ/m <sup>2</sup>	ISO 179	unnotched, 23 °C
Abrasion resistance	0.04 %	Taber Abrasion H22 / 3000 cycles	
Thermal properties	Typical Value	Test Method	Test Condition
Melting temperature	218 °C	ISO 11357-3	
Glass transition temperature	52 °C	ISO 11357	
Melt flow index	7 g / 10 min	ISO 1133	220 °C, 10 kg
Vicat softening temperature	196 °C	ISO 306	
Flame classification	-	UL 94	
Temperature resistance	180 °C		
Chemical properties	Typical Value		
Polymer base	Polyamide 6 + carbon fibres		
Good chemical resistance	Water, car fluids, oils, grasses, acetone		
Low chemical resistance	Bases, acids, alcohol, ozone		
Other properties	Typical Value	Test Method	Test Condition
Material density	1.18 g/cm <sup>3</sup>	ISO 1183	
UV stability	Yes		
Electrical volume resistivity	10 <sup>12</sup> Ω·cm		
Food contact	No		
Biodegradability	No		
Transmittance	No		



Diameter tolerance: ± 0.1 mm  
Weight: 600 g of filament + 230 g spool

- Recycled material from fishing nets
- High strength and stiffness
- Low thermal expansion
- Temperature resistance up to 180 °C

Workability of 3D printing filament is at least 12 months from delivery.

This material can be used to produce electrical and electronic equipment. It doesn't contain restricted substances. The information was processed with the best knowledge of the manufacturer, and it is for information only.