fillamentum INDUSTRIAL

Technical Data Sheet

ASA CF10 Carbon

Version updated 1/2025

Mechanical properties	Typical Value	Test Method	Test Condition
Tensile strength at yield	45 MPa	ISO 527	50 mm/min
Tensile strength at break	38 MPa	ISO 527	50 mm/min
Elongation at break	10 %	ISO 527	50 mm/min
Tensile modulus	2800 MPa	ISO 527	50 mm/min
Flexural strength	-	ISO 178	
Flexural modulus	-	ISO 178	
Hardness	74 Shore D	ISO 7619	
Charpy impact strength	23 kJ/m^2	ISO 179	unnotched

Thermal properties	Typical Value	Test Method	Test Condition
Melting temperature	135 °C	ISO 11357	
Glass transition temperature	65 °C	ISO 11357	
Melt flow index	-	ISO 1133	220 °C, 10 kg
Vicat softening temperature	90 °C	ISO 306	
Flame classification	not specified	UL 94	
Temperature resistance	90 °C		

Chemical properties	Typical Value
Polymer base	Acrylic-styrene-acrylonitrile copolymer + carbon fibers
Good chemical resistance	Water, bases, alcohols, oils, greases, ozone
Low chemical resistance	Acetone, acids, car fluids

Other properties	Typical Value	Test Method	Test Condition
Material density	1.04 g/cm^3	ISO 1183	
UV stability	Yes		
Electrical volume resistivity	10^{12} Ω·cm		
Food contact	No		
Biodegradability	No		
Light transmittance	No		

- UV and weather resistance
- Creep resistance
- Matte finish
- Wear resistance
- Temperature resistance up to 90 °C

Hardness

Impact resistance

Flexibility

Ease of printing

Weather resistance

Wear and abrasion resistance

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.

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