

# Nylon PA6 Carbon Fiber

Nylon 6 CF, PA6CF, Nylon 6 Carbon Fiber

A strong, stiff and heat-resistant composite combining the properties of carbon fiber and nylon. It has excellent chemical resistance, low friction, and high impact strength. It is lightweight, making it attractive for aerospace and automotive applications.



## Material properties

Density	ISO 1183	1,20	g/cm <sup>3</sup>
Water absorption at saturation	ISO 62	0,85	%
Tensile strength	ISO 527	74,8	MPa
Elongation at break	ISO 527	2,5	%
Elastic modulus	ISO 527	4500	MPa
Flexural strength	ISO 178	130,5	MPa
Resilience	ISO 179	13,34	kJ/m <sup>2</sup>
HDT 0.45 MPa	ISO 75	155	°C
Melting temperature	ISO 11357	218,15	°C
Thermal conductivity (20°C)	ISO 22007	215	W/mK

### Printing layer height

0,15 mm (0,006 in)

### Maximum dimensions

250x250x250 mm (9.8x9.8x9.8 in)

### Infill

30%

### Shell thickness

1,8 mm (0,07 in)

### Tolerances

± 0,60mm < 100mm / ± 0,75% > 100mm

### Applications

Excellent for conceptual and functional prototypes. Good chemical resistance and excellent flexural rigidity due to the addition of short carbon fibres. Suitable for mechanical components, tooling and brackets.

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