

# Nylon PA12 Carbon Fiber

Nylon 12 CF, PA12CF, Nylon 12 Carbon Fiber

Nylon PA12 CF (carbon fiber) is a high-performance material used industrially for metal replacement practices. Among its excellent mechanical properties, it is characterized by a high lightness and rigidity. Processed with FDM 3D Printing, it allows remarkable design freedom.



## Material properties

Density	ISO 1183	1,06	g/cm <sup>3</sup>
Tensile strength	ISO 527	69,3	MPa
Elongation at break	ISO 527	2,9	%
Elastic modulus	ISO 527	3750	MPa
Flexural strength	ISO 178	114,1	MPa
Resilience	ISO 179	9,2	kJ/m <sup>2</sup>
HDT 0.45 MPa	ISO 75	131	°C
HDT 1.8 MPa	ISO 75	105	°C
Melting temperature	ISO 11357	165	°C

### 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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