

## Hyper-Light Carbon

SLS MATERIAL

### GENERALITIES

Hyper-light Carbon is an innovative additive manufacturing material that combines lightness, strength, and versatility. It is a carbon fiber-filled material that is ideally suited for a wide range of applications, including aerospace, sports, and motorsport.

High-Detail Dark Grey Surface Finish

Good Strength-to-Weight Ratio Properties

Reduced weight

Typical Physical Properties			
Property	Test Method	Imperial	Metric
Color/Appearance	Visual	Dark Gray	Dark Gray
Bulk Density	ASTM D1895	0.214 oz/in <sup>3</sup>	0.37 g/cm <sup>3</sup>
Average Particle Size (D50)	Laser Diffraction	0.002 inches	55 microns
Particle Size Range (D10-D90)	Laser Diffraction	0.001 - 0.004 inches	35 - 100 microns
Sintered Part Density	ASTM D792	0.474 oz/in <sup>3</sup>	0.82 g/cm <sup>3</sup>
Heat Deflection Temperature	ASTM D648	338°F at 264 ps	170°C at 1.82 MPa
Heat Deflection Temperature	ASTM D638	356°F at 66 psi	180°C at 0.45 MPa
Ultimate Tensile Strength (XY)	ASTM D638	7,170 psi	49 MPa
Ultimate Tensile Strength (Z)	ASTM D638	4,835 psi	33 MPa
Tensile Modulus (XY)	ASTM D638	554,000 psi	3,816 MPa
Tensile Modulus (Z)	ASTM D638	282,000 psi	1,945 MPa
Elongation at Break (XY)	ASTM D638	3%	3%
Elongation at Break (Z)	ASTM D638	3%	3%
Flexural Modulus (XY)	ASTM D790	731,000 psi	5,040 MPa
Flexural Modulus (Z)	ASTM D790	626,000 psi	4,313 MPa

**Prosilas**

Additive Manufacturing Service & Consulting

+39 0733 892665

[info@prosilas.com](mailto:info@prosilas.com)

[www.prosilas.com](http://www.prosilas.com)