

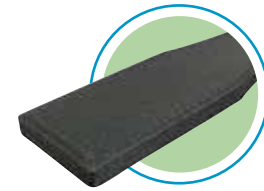
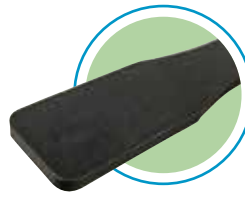
Technical Data Sheet



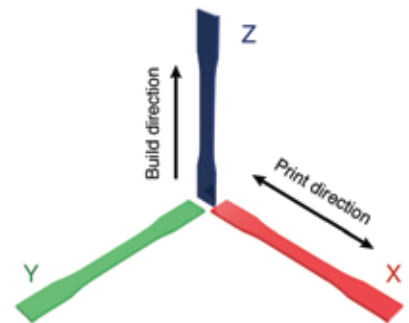
Essentium PC/CF

Description

Our polycarbonate composites are the engineer's dream. This material exhibits excellent mechanical properties, including high impact strength and heat resistance. Reinforced with carbon fiber, this filament has an excellent strength-to-weight ratio, meaning you get more for less. From quadcopters and biomedical devices to tooling and fixturing, our PC/CF will help you create parts that are limited only by your imagination.



Metric	Method	Molded Properties	3D Printed Properties		
			XY	YX	ZX
Tensile Strength, MPa	ASTM D638	106	70	34	21
Tensile Modulus, MPa	ASTM D638	7269	4930	1768	1483
Flexural Strength, MPa	ASTM D790	171	108	55	32
Flexural Modulus, MPa	ASTM D790	6041	4223	1530	1144
Notched Izod Impact, J/m	ASTM D256	66	78	38	16
Specific Gravity ¹	ASTM D792	1.24			
Melting Point ¹ , °C	–	Not Applicable			
Glass Transition Temperature, °C	ASTM D3418	138			
Heat Deflection Temperature ¹ , °C					
0.45 MPa (66 psi)	ASTM D648	146			
1.8 MPa (264 psi)	ASTM D648	142			



Recommended Print Settings:	
Extrusion Temperature, °C	280-310
Bed Temperature, °C	150-200
Enclosure Temperature, °C	70-100
Print Speed, mm/s	30-60

Notes:

(1) Values from raw material TDS

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