

## PA FC

Innovatefil PA FC is a filament with great mechanical resistance and excellent performance at high temperatures. The mixture of polyamides and carbon fiber allows large objects to be printed without deformations and extremely strong, and make the filament increase its strength and rigidity.

This filament is especially suitable for a professional user who requires a plus of quality in their prints and is mainly intended for pieces that will have an end or direct use.



Thermal resistance



Impact resistance



High industrial capacity

	VALUES	UNIT OF MEASUREMENT	STANDARD
<b>PHYSICAL PROPERTIES</b>			
Chemical name	Polyamide with carbon fiber		
Density	1,25	g/cm <sup>3</sup>	ISO 1183
<b>MECHANICAL PROPERTIES<sup>1</sup></b>			
	XY PLANE	XZ PLANE	
Tensile strength	78,3	23,7	MPa
Traction module	-	-	MPa
Flexion strength	133,2	-	MPa
Flexion module	4863,8	-	MPa
Elongation at maximum effort	1,5	1,2	%
Stretch traction at break	1,7	1,4	%
Elongation of flexion at break	5,2	-	%
Charpy Impact Force (non-notched)	-	-	kJ/m <sup>2</sup>
Hardness	-	-	Shore D
<b>THERMAL PROPERTIES</b>			
Glass transition temperature (Tg)	65	°C	ISO 11357
VICAT B (50 N 50°C/h)	65	°C	ISO 306
HDT B (0,45 MPa)	-	°C	ISO 75
<b>PRINTING PROPERTIES</b>			
Printing temperature	250 – 270	°C	
Bed temperature	60 – 90	°C	
Print speed	30 – 50	mm/s	
Layer fan	40 – 60	%	
Material flow	90 – 95	%	
Layer height	≥ 0,2	mm	
Nozzle recommendations	≥ 0,6 (Steel)	mm	

SIZE	NET WEIGHT	GROSS WEIGHT	DIAMETER	COLOR	PACKAGING
M	500 g	725 g	1,75 mm	Natural (black)	INNOVATEFIL Box
L	2000 g	2300 g	2,85 mm	Natural (black)	Cardboard Box

NOTICE: The information provided in the data sheets is intended for reference only. It should not be used as design or quality control values. Actual values may differ significantly depending on printing conditions. The final performance of printed components not only depends on materials, design and printing conditions are also important.