



## PRODUCT DESCRIPTION

YOUSU PETG CF is a material that made of PETG filament infused with Carbon Fibre. It is characterized by higher strength and rigidity than conventional PETG. It is ideal for mechanical components and has a beautiful matte surface. The printed parts has the advantage of toughness as PETG and also can be damp proof after printing, can be used as water tubes for machines with good resistance of impactness.

Properties	ASTM	Unites	Test Condition	Typical Value
<b>Physical Properties</b>				
Density	D792	g/cm <sup>3</sup>	25°C	1.25
Melt Flow Rate	D1238	g/10min	210°C, 2.16Kg	16.4~17.8
<b>Mechanical Properties</b>				
Tensile Strength (X-Y)	D638	MPa	5mm/min	42.2~43.8
Tensile Strength (Z)	D638	MPa	5mm/min	21.6~37.4
Tensile Modulus (X-Y)	D638	MPa	5mm/min	540~570
Elongation (X-Y)	D638	%	5mm/min	14.3~21.6
Flexural Strength (X-Y)	D790	MPa	2mm/min	65.6~68.1
Flexural Modulus (X-Y)	D790	MPa	2mm/min	2751~2836
Impact Strength, IZOD notched (X-Y)	D256	KJ/m <sup>2</sup>	4mm,23°C	2.4~2.7
<b>Thermal Properties</b>				
Heat Distortion Temp.	D648	°C	0.45MPa	70~75

## Applications

Functional prototyping: Grips/Guides/Hinges/Sleeves/Snap-fit parts/Protectivecases/Water tube for machines

## Processing Information

YOUSU PETG-CF 3D FILAMENT, as a composite and abrasive filament, carbon fiber filaments will destroy your standard brass nozzles. The carbon fibers are tougher than the brass, and will decimate it in no time at all. Therefore, for carbon fiber 3D printing, you'll need either a hardened steel nozzle, or even a ruby-tipped nozzle. We advice use 0.6mm or bigger nozzle.

Before printing, no matter it is new opened or not, we advice to dry it at the temperture of 60-80°C about 6-8 hours to avoid moisture. Also, we advice use closed box printer which can have constant temperature control system is better.

## Basic Parameters

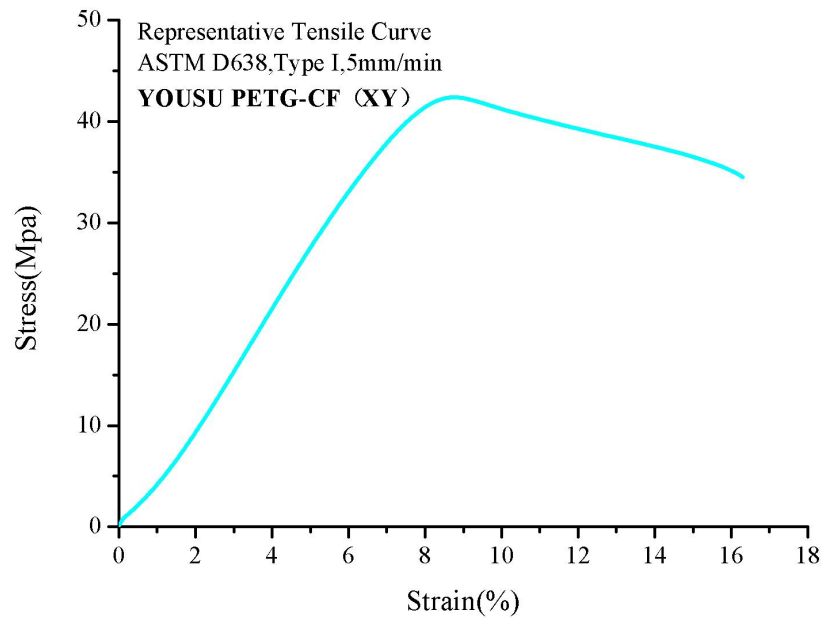
Product Code	YS-PETG-CF
Material	PETG-CF
Diameter	1.75 mm
Printing Temp	230°C-240°C
Print Bed Temp	60°C~70°C
Cooling fan	100%
Printing speed	<200mm/s

All information provided and recommendations made herein are intended to assist customers in determining whether our products are suitable for their applications. We request that customers inspect and test our products before use in order to make their own final decision regarding suitability. We do not guarantee results, freedom from patent infringement, or suitability of resultant products for any suggested application with respect to the use of any formula or material described herein.

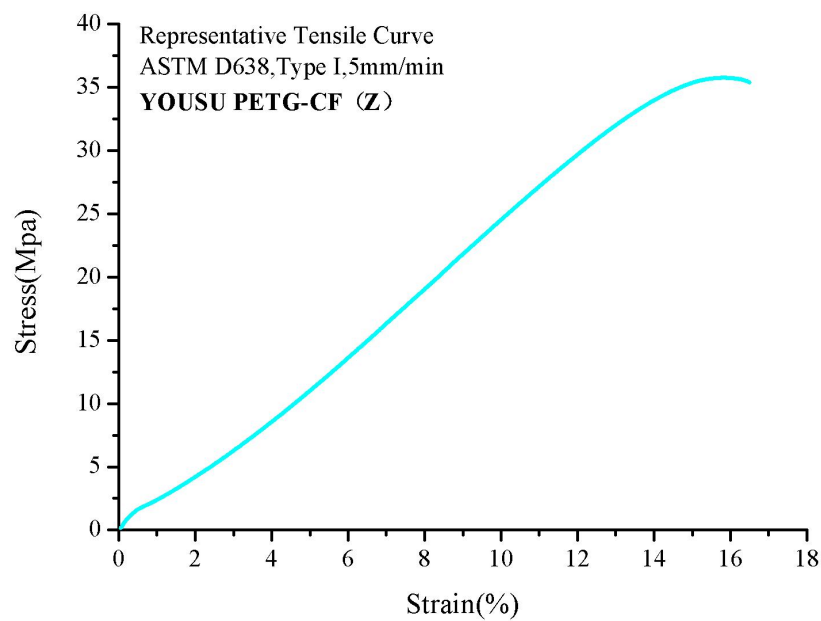
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## MECHANICAL PROPERTIES

### Representative Tensile(X-Y) Curve

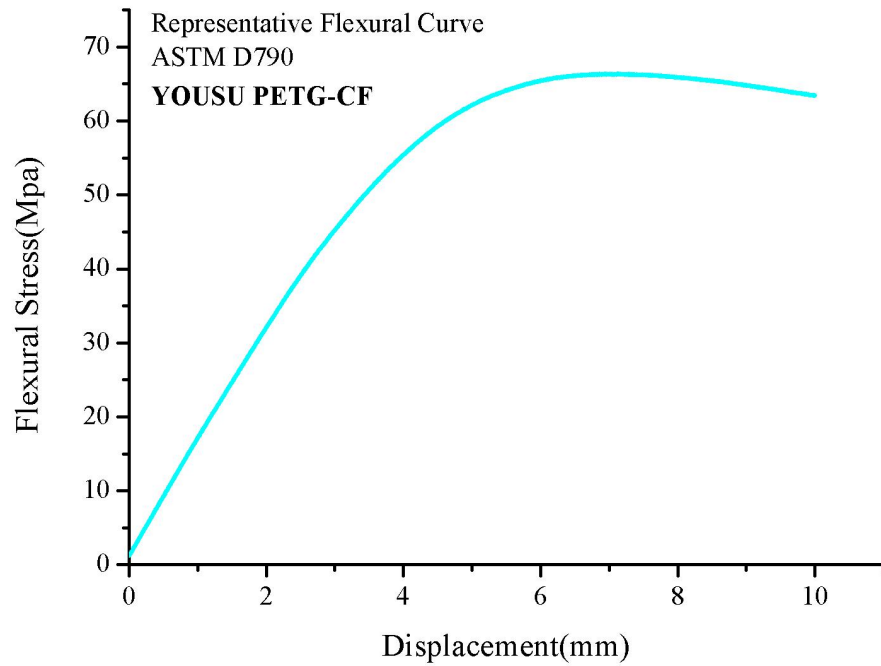


### Representative Tensile(Z) Curve



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Representative Flexural Curve

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