



PRODUCT DESCRIPTION

YOUSU PLA-CF PLA contains 15-20% carbon fiber, which features high rigidity and strength than standard PLA. Excellent printability: no odor, no warp, clog-free, and bubble-free. Allowing 3d printing enthusiasts to create stunning works with fewer issues. PLA carbon fiber 3D printer filament also features an incredible satin and matte finish which makes the print looking very smooth.It's the most easiest to print CF filament than other CF filament types.

Properties	ASTM	Unites	Test Condition	Typical Value
Physical Properties				
Density	D792	g/cm³	25℃	1.22
Melt Flow Rate	D1238	g/10min	210℃, 2.16Kg	3.1~4.3
Mechanical Properties				
Tensile Strength (X-Y)	D638	MPa	5mm/min	43.9~45.3
Tensile Strength (Z)	D638	MPa	5mm/min	27.6~31.3
Tensile Modulus (X-Y)	D638	MPa	5mm/min	616~671
Elongation (X-Y)	D638	%	5mm/min	11.1~13.3
Flexural Strength (X-Y)	D790	MPa	2mm/min	61.3~63.1
Flexural Modulus (X-Y)	D790	MPa	2mm/min	3195~3226
Impact Strength, IZOD notched (X-Y)	D256	KJ/m²	4mm,23℃	4.9~5.8
Thermal Properties				
Heat Distortion Temp.	D648	℃	0.45MPa	50~53

Applications

Functional prototyping: Grips/Guides/Hinges/Sleeves/Snap-fit parts/Protectivecases

Processing Information

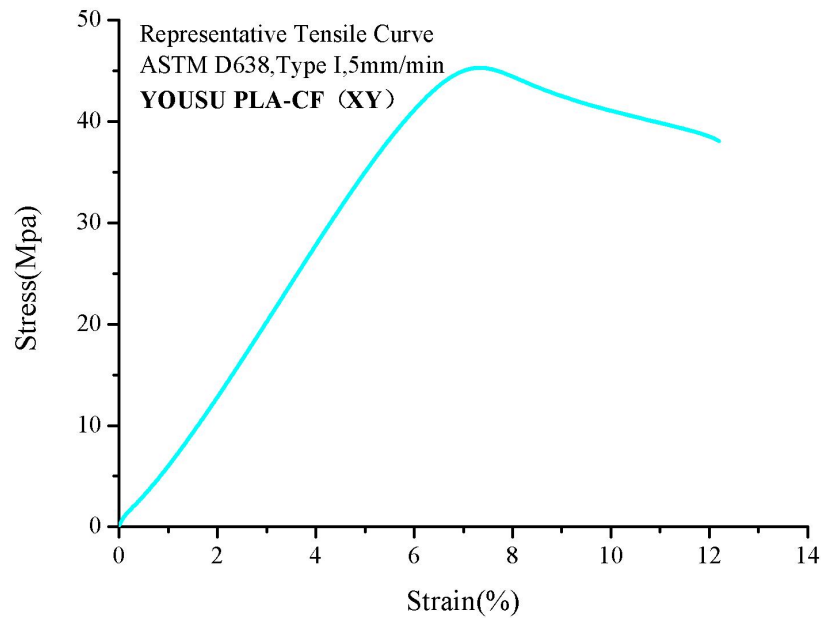
YOUSU PLA-CF 3D FILAMENT, as a composite and abrasive filament, carbon fiber filaments will destroy your standard brass nozzles. The carbon fibers are tougher than the brass, and will decimate it in no time at all. Therefore, for carbon fiber 3D printing, you' ll need either a hardened steel nozzle, 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℃ 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-PLA-CF
Material	PLA-CF
Diameter	1.75 mm
Printing Temp	200℃-240℃
Print Bed Temp	40℃~60℃
Cooling fan	100%
Printing speed	<200mm/s

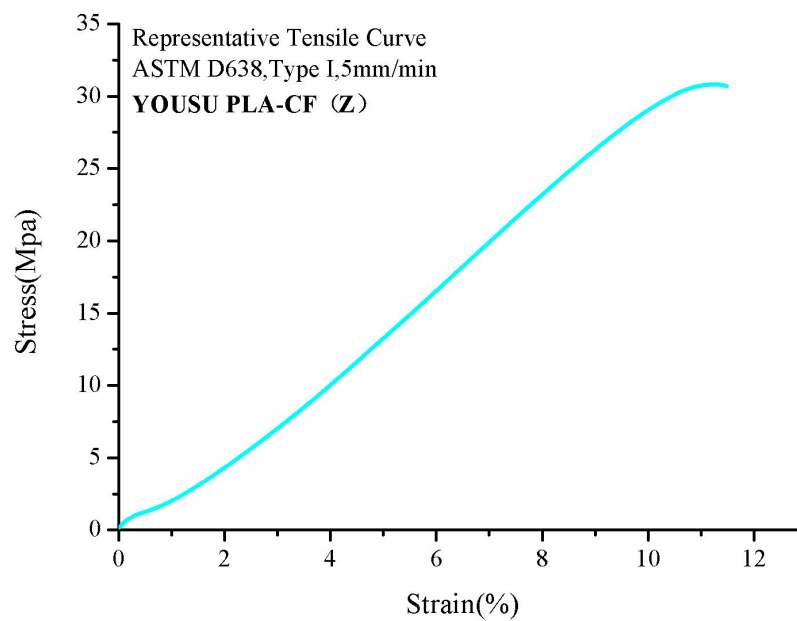
All information provided and recommendations made herein are intended to assist customers in determining whether our products are suitable for their applications. We request that customers inspect and test our products before use in order to make their own final decision regarding suitability. We do 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.

MECHANICAL PROPERTIES

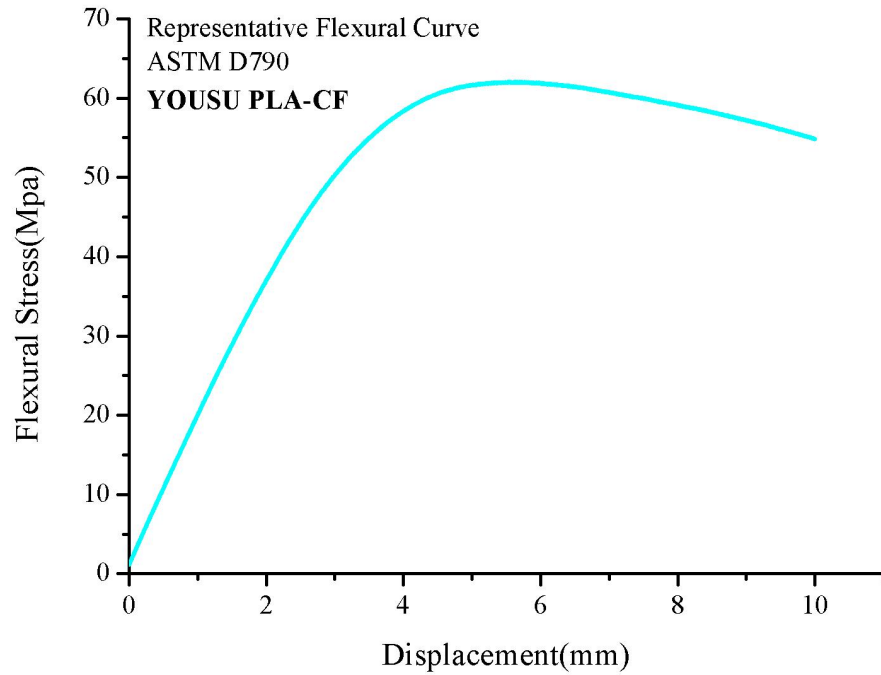
Representative Tensile(X-Y) Curve



Representative Tensile(Z) Curve



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.

Representative Flexural Curve

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.