

## PRODUCT DESCRIPTION

YOUSU 3D FILAMENT, a thermoplastic derived from reproducible resources, which is specially designed by Yousu 3D Technology Co., Ltd, limited for 3D FDM printer. As a popular product used in 3D printing, our product shows excellent mechanical and physical properties

Properties	Test Method	Unites	Test Condition	Typical Value
<b>Physical Properties</b>				
Density	ASTM D792	g/cm <sup>3</sup>	23 °C	1.20
Melt Flow Rate	ASTM D1238	g/10min	300 °C, 1.2Kg	10
Water Absorption	ASTM D570	%	23 °C,24hr	0.15
Linear Expansion Coefficient	ASTM D696	(cm/cm/°C)		6.8×10 <sup>-5</sup>
<b>Mechanical Properties</b>				
Tensile Strength		MPa	23 °C, yield	60
			23 °C,break	71
Tensile Modulus	ASTM D638	MPa		2410
Tensile Elongation		%	yield	6.0
			break	150
Flexural Strength	ASTM D790	MPa	23 °C	96
Flexural Modulus		GPa		2.4
Impact Strength, IZOD notched	ASTM D256	J/m	23°C 3.20mm	19
				900
Rockwell Hardness	ASTM D785		R scale	73
			M scale	118
<b>Thermal Properties</b>				
Vicat Softening Temperature	ASTM D1525 <sup>6</sup>	°C		104
Heat Deflection Temperature	ASTM D648	°C	1.8 MPa Unannealed	121
			1.8 MPa Annealed	141
			0.45 MPa Unannealed	144
<b>Flammability</b>				
Flammability	UL-94		3.0 mm	HB
			0.50 mm	V-2
			1.6 mm	V-2
			2.5 mm	V-2
			2.7 mm	V-2

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.

Electrical Properties				
Dielectric Constant	ASTM D150		60 HZ	3.00
Volume Resistivity	ASTM D257			2.0E+17 ohms.cm
Dielectric Strength	ASTM D149	KV/mm		17

after printed as a part.

### Applications

YOUSU PC 3D FILAMENT is specially designed for 3D printing.

### Processing Information

Yousu PC 3D filament is applied to most of the FDM 3D printer on the market. Our product has two kinds of diameters: 1.75mm and 3.0mm and show excellent stability and mobility in the molten state. Parts printed with our products have well thermal and mechanical properties. Before printing some parameters should be noticed.

Basic Parameters	
Product Code	YS-PC <sup>141</sup>
Material	PC
Diameter	1.75/3.0 mm
Printing Temp	220-270°C
Print Bed Temp	100-110°C

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