

PRODUCT DESCRIPTION

YOUSU Conductive PLA FILAMENT, a modified PLA with special additives, which is specially designed by Yousu 3D Technology Co., Ltd, limited for conductive application like touch sensor prints like lift buttons, Pad pen or some anti-static application scenarios. It's easy to print as normal pla.

Properties	Test Method	Unites	Test Condition	Typical Value
Physical Properties				
Density	ASTM D792	g/cm ³	23°C	1.24
Melt Flow Rate	ASTM D1238	g/10min	190°C, 2.16Kg	6.5~8.5
Mechanical Properties				
Tensile Strength	ASTM D638	MPa	10mm/min	(X-Y) 38.6~43.9 (Z) 26.5~35.9
Tensile Modulus		GPa	10mm/min	1389~1552
Tensile Elongation		%	10mm/min	7.4~12.5
Notched IZOD Impact	ASTM D256	KJ/m ²	4mm, 23°C	7.7~8.6
Electric Resistance	-	KOM/100mm	1.75mm diameter	150-300

Applications

YOUSU Conductive PLA 3D FILAMENT is specially designed for conductive application like touch sensor prints like lift buttons, Pad pen or some anti-static application scenarios.

Processing Information

Due to the function of the conductive PLA in the filament, YOUSU Conductive PLA 3D FILAMENT can have conductive effects. The conductive powder rate will not be more than 25% because it will reduce the physical properties of the filament. If the powder rate get higher, what's more the filament will become brittle which is not fit for printing and may have crack issue during shipment. And the filament electric resistance is not the electric resistance of the printed models.

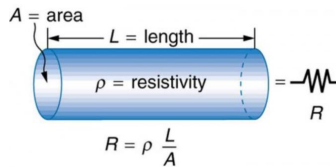
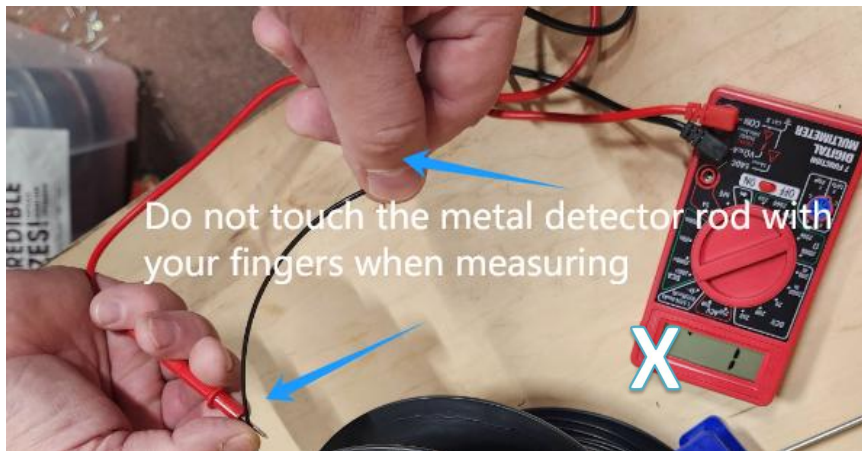


Figure 1. A uniform cylinder of length L and cross-sectional area A. Its resistance to the flow of current is similar to the resistance posed by a pipe to fluid flow. The longer the cylinder, the greater its resistance. The larger its cross-sectional area A, the smaller its resistance.

Basic Parameters	
Product Code	YS-Conductive PLA
Material	PLA
Diameter	1.75 ± 0.03 (2.85 ± 0.05) mm
Printing Temp	180-220°C
Print Bed Temp	None needed (or 30-60°C)

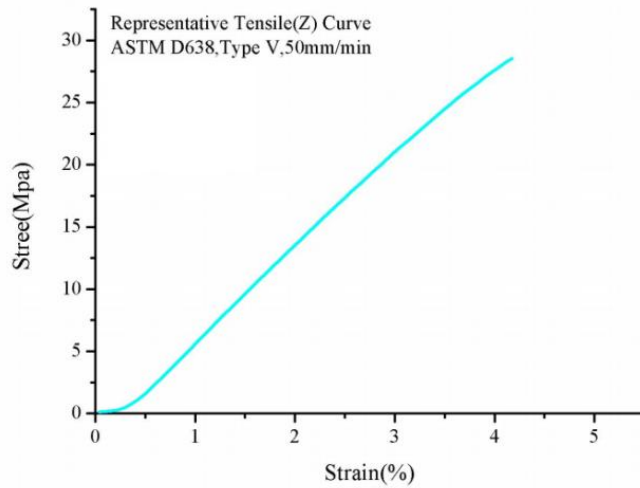


The human body itself also has resistance. Contact with fingers will cause inaccurate readings.



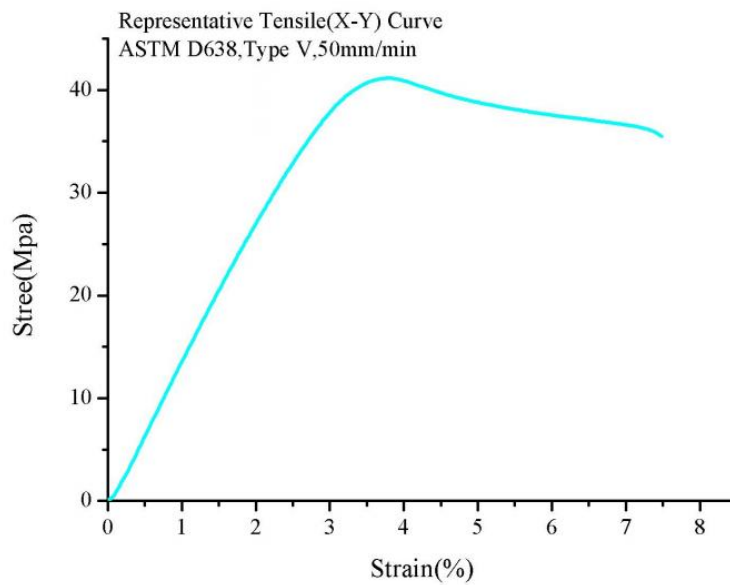
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Representative Tensile(Z) Curve



MECHANICAL PROPERTIES

Representative Tensile(X-Y) Curve



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