tionse[®] 3D FILAMENT

2019 Catalogue



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tionse[®] Color Up Your Office Life

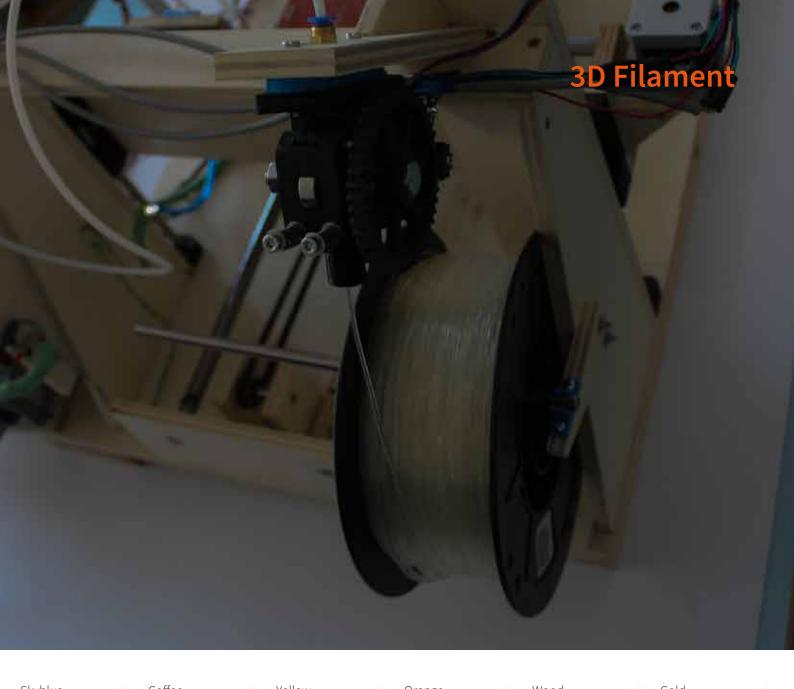
Company Profile

Guangzhou Sanheng Information Technology Co., Ltd. (Abbreviation Sanheng Technology) was established in 2007, headquarter in Guangzhou, is a professional R&D, production, sales, service oriented manufacture enterprises. It serves more than one million enterprise users.

Sanheng technology is positioning at enterprise office consumption areas, in recent years, the company has developed different series of office supplies, such as: office printing consumables, office stationery, office equipment, cultural and creative products etc.











3D Filaments and Services

At Tianse, we have delivered a wide range of premium quality 3D printing filaments which is nothing short of perfection.

Utilizing the most advanced filament manufacturing technology out of prime high-quality virgin raw material, our engineers have developed a full range of regular and specialty filaments to cover all your requirements whether you are a hobbyist, a modeler, a prototype creator or a manufacturer.

We know that "the filament is the key element to precision output". Using high quality, consistent diameter tolerance and consistent color filament help enhancing the printing resolution and quality and reduce most of the issues with printing process such as nozzle clogging or running material etc.

Complying with international standards, our filaments are free from harmful or hazardous materials.

PLA - POLYLACTIC ACID

PLA (Polylactic Acid) is one of the two most commonly used desktop 3D printing filaments (with the other being ABS filament). It is the "default" recommended material for many desktop 3D printers, and with good reason - PLA is useful in a broad range of printing applications, has the virtue of being both odorless and low-warp, and does not require a heated bed.

PLA filament is also one of the eco-friendliest 3D printer materials available; it is made from annually renewable resources (corn-starch) and requires less energy to process compared to traditional (petroleum-based) plastics. Outside of 3D printing, PLA plastic is often used in food containers, such as candy wrappers, and biodegradable medical implants, such as sutures. Our PLA filaments for 3D Printing are available in a wide range of colors in both 1.75mm and 3mm.

The latest range of PLA filaments have been developed by our expert engineers utilizing the latest technology and high quality prime virgin raw material.



OPTIONS

Size

1.75 mm -/+ 0.05 mm 2.85 mm -/+ 0.05 mm

Color

Full Color Range (Special Colors By Order)

Packaging

300 g (Samples) 1 Kg Spools 5 Kg Spools

(Customized packaging provided)

SPECIFICATIONS

Filament Material Specific Gravity Size

Printing Information

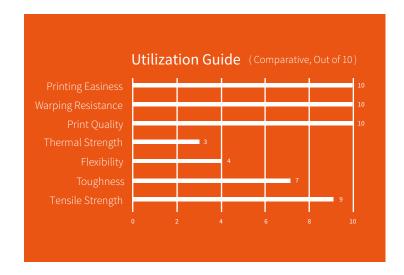
Working Temperature

PLA
1.25 gr/cm³
1.75 mm -/+ 0.05 mm
2.85 mm -/+ 0.05 mm
Extruder: 190 – 220°C
Bed: 40 – 60°C
(Only for big parts)
Starts losing mechanical
strength at 60°C



FEATURES

- Lower melting point for easier printing.
- Free from harmful or hazardous materials.
- Lower shrinkage rate.
- High rigidity with minimal flex.
- Produces higher quality prints.
- Proper for printing large parts with almost no warping Can be printed without a heated bed.
- No chemical odors produced during printing.





PETG - POLYETHYLENE TEREPHTALATE

PETG (Polyethylene Terephthalate Glycol-Modified) is a very strong and versatile material with great thermal resistance. It is the great material for printing mechanical parts. PETG is great for printing large object, because it has almost no warping. PETG filament is an industrial strength filament with several great features.

Figuratively speaking, it combines the ease of use of PLA filament with the strength and durability of ABS filament. First, its strength is much higher than PLA and it is FDA approved for food containers and tools used for food consumption.

Unlike ABS filament, it barely warps, and produces no odors or fumes when printed. PETG filament is not biodegradable, but it is 100% reclaimable. It's known for its clarity and is also very good at bridging. Our PETG filaments are available in a wide range of color options and they come in 1.75mm and 3mm diameter.

FEATURES

- Higher melting temperature for better mechanical strength at higher temperature.
- Free from harmful or hazardous materials.
- Lower shrinkage rate.
- High rigidity combined with good flex.
- Produces objects with higher toughness.
- Proper for objects with good toughness, higher working and with minimum warping during printing.
- Shall be printed on heat bed.
- Parts can withstand temperatures of up to 80 °C without losing strength.
- Parts can be vapor smoothed for greater strength and better surface finish.
- Easy to glue with acetone.

SPECIFICATIONS

Filament Material Specific Gravity Size

Printing Information

Working Temperature

PETG

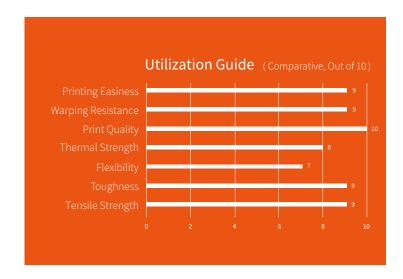
1.2 gr/cm³

1.75 mm -/+0.05 mm 2.85 mm -/+ 0.05 mm

Extruder: 220 – 240 °C

Bed: 50 - 90 °C

Withstands up to 80 °C





OPTIONS

Size

Color

Packaging

1.75 mm -/+ 0.05 mm 2.85 mm -/+ 0.05 mm

Full Color Range (Special Colors By Order)

300 g (Samples) 1 Kg Spools 5 Kg Spools

(Customized packaging provided)







TPU - THERMOPLASTIC POLYURETHANE

TPU (Thermoplastic Polyurethane) is an elastic, oil/grease resistant, and abrasion-resistant material with a shore hardness of 95A

TPU Plastic has several applicable uses including automotive instrument panels, caster wheels, power tools, sporting goods, medical devices, drive belts, footwear, inflatable rafts, and a variety of extruded film, sheet and profile applications. It is also commonly used in mobile phone cases.

Our TPU flament is available in different colors and 1.75mm and 3mm diameter.

SPECIFICATIONS

Filament Material Specific Gravity Size

Printing Information

Working Temperature

TPU 1.2 gr/cm³

1.75 mm -/+ 0.05 mm 2.85 mm -/+ 0.05 mm Extruder: 240 – 260 °C Bed: 40 – 60 °C

Withstands up to 80 °C



FEATURES

- Flexible elastic material.
- Free from harmful or hazardous materials.
- Excellent flexural fatigue resistance.
- Produces objects with very good layer adhesion.
- Extremely flexible.
- Good tear & abrasion resistance.
- Resistance to low & high temperatures from -30 °C to +140 °C
- Good colourability.
- Recyclable.
- Shall be printed on heat bed.
- Bed adhesion is usually very good but in case, Blue Painter's Tape can be a choice.



OPTIONS

Size 1.75 mm -/+0.05 mm 2.85 mm -/+ 0.05 mm

Color Full Color Range (Special Colors By Order)

Packaging 300 g (Samples) 1 Kg Spools

5 Kg Spools

(Customized packaging provided)





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