



MINGOA

Technical Data Sheet

WELCOME

Company Introduction

About us

Shenzhen MINGDA Technology Co., Ltd. was founded in 2012, which is a professional 3D printer research and development manufacturer in China and a national high-tech enterprise.

The Company's business focuses on the development, production and sales of high performance extruded 3D printing materials. With formulation development as its core competence, the Company is committed to solving the Fused Deposition Modeling process from the material side, reducing the hardware requirements of materials for printing equipment, and achieving the goal of printing high-performance composite materials with low-cost printers.

The Company is committed to providing customers with industry-leading 3D printing materials and total solutions from printing process to printing equipment, and has the ability to quickly customize materials to meet customer application requirements.

Superiority

- With a deep understanding of the FDM process, all product lines and materials are optimized for the FDM process.
- Relying on the strong strength in material modification development, we can provide customized material development services according to customer application requirements.
- The unique product line of support materials fits perfectly with high-performance printing materials to form a complete industrial-grade printing solution, thus closing the loop of the printing process.
- High-performance online production monitoring equipment and mature production processes can ensure the stable quality of FDM materials.

Contact us

For any inquiries or technical support, please contact:support@3dmingda.com

Product Advantages

- **Low Odor**

MINGDA ASA gives out minimal odor compared with other traditional ABS filaments during printing . It is more suitable for 3D printing hobbyists

- **UV Resistance**

MINGDA ASA can resist material degradation , aging and color fading which are caused by good choice for outdoor application with its excellent aging resistance and weather resistance. Its aging resistance can be 10 times higher than that of traditional ABS filaments

Available

Colors	Natural/Black/Red
Diameter	1.75mm/2.85mm
Net weight	1kg

Material Properties

Property	Testing method	Typical value
Density	ISO 1183	1.1 g/cm ³
Glass transition temperature	ISO 11357	98°C
Melt index	220°C, 2.16kg	5.6 g/10min
Vicat softening temperature	ISO 306	105°C
Determination of temperature	ISO 75: Method B	90°C(18MPa) 96°C (0.45MPa)
Tensile yield strength (X-Y)		38.5±1.6MPa
Yield elongation (X-Y)		2.38±0.23%
Young's modulus (X-Y)	ISO 527	2317±246MPa
Tensile breaking strength (X-Y)		32.23±1.13MPa
Elongation at break (X-Y)		5.2±1.4%
Tensile yield strength (Z)		27.87±0.4MPa
Young's modulus (Z)	ISO 527	2037±64MPa
Elongation at break (Z)		2.43±0.27%
Bending strength (X-Y)		64.49±1.3MPa
Bending modulus (X-Y)	ISO 178	2399±147MPa
Charpy impact strength (X-Y)	ISO 179	12.9±0.9KJ/m ²

Specimens printed under the following conditions : Nozzle size 0.4mm , Nozzle temp 250°C, Bed temp 105°C. Print speed 50mm/s Infill 100%, Infill angle±45°

Recommended printing conditions

Nozzle temperature	240-270°C
Recommended nozzle diameter	≥0.2mm
Recommended build plate material	Class, PEI Film or PC Film
Build plate temperature	90-110°C
Raft separation distance	0.18-0.2mm
Cooling fan speed	Off
Print speed	20-90 mm/s
Retraction distance	2-5 mm
Retraction speed	1800-3600 mm/min
Recommended support material	Support F-Green Quick-Remove Support Material

Additional Suggestions:

1. Compared with PLA and PETG filaments, ASA / ABS needs a higher environment temperature to release the residual stress during printing. Please keep the chamber closed to avoid warping and layer separation issues during the process. If your printer has a heated enclosure already, please keep the chamber temperature between 60-80°C.

2. If you find the printing quality decreases after ASA has been exposed in the air for a long time, please dry the filament at 70-80 °C for 4-6h.



MINGDA