

Technical Data Sheet

ABS Filament

ABS is a fused filament fabrication (FFF) 3D printing filament, using ABS 757 as the main raw material for production. Our high-quality ABS has high impact resistance, and a temperature resistance generally suitable for 3D printers.

Features

- Easy to print
- High toughness
- High impact resistance

Main Specifications

Physical Properties	Test Means		
Density	ISO 1183	g/cm³	1.04-1.06
MFR (250°C/2.16kg)	ISO 1133	g/10min	2-4
Moisture Absorption (23°C /24h)	ISO 62	%	1
Mechanical Properties			
Tensile strength	ISO 527	Мра	35-40
Elongation at break	ISO 527	%	12-17
Flexural Modulus	ISO 527	Мра	1500-1650
Flexural Strength	ISO 178	Мра	65-70
Impact Strength	ISO 180	KJ/m ²	7-10.5
Thermodynamic Properties			
HDT @ 0.455 MPa (66 psi)	ISO 75	°C	88

Note:

To prevent moisture absorption and contamination, the filament should be kept in airtight and undamaged packaging until opened for use. For the same reason, used filament should be resealed before storage. ABS is a polymer material. Moisture and oxygen in the air and ultraviolet rays will accelerate the aging of the material. In order not to affect the final printing quality, use the ABS filament as soon as possible after opening. ABS material absorbs moisture easily. Drying the filament in a hot air oven at 80°C for at least 5 hours is recommended to ensure the success rate and quality of the printed model.



Test Sample Printing Conditions

3D Printer	Guider IIS
Nozzle Diameter	0.4mm
Nozzle Temperature	230°C
Printing Speed	50mm/s
Layer	1.2mm
Infill	100%
Standard Printed Sample	See addendum

Recommended Printing Parameters

Parameters		
Nozzle Temperature	220-240°C	
Bed Temperature	80-100°C	
Bed Materials	Tempered glass, BuildTak, Carbon fiber	
	board	
Nozzle Diameter	0.4-0.6mm	
Model Cooling Fan	0-50%	
Layer	0.12-0.3mm	
Printing Speed	40-60mm/s	
Idle Speed	60-120mm/s	
Printing Environmental Temperature	Room temperature to 40°C	
Retraction Distance	1-3mm	
Retraction Speed	30-50mm/s	
Supporting Materials	Self-supporting, HIPS	

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Addendum: Test sample dimensions and printing direction

