

3D Printing Filament ABS Basic 1.75mm



DESCRIPTION

ABS Basic Filament is a cost-effective engineering-grade filament with excellent mechanical properties, including high toughness, high impact resistance, good heat resistance, and wear resistance.

It offers superior moulding and machining performance and is suitable for printing models that require high strength and subsequent post-processing in functional prototypes and end-use parts. ABS filament is designed to produce a smooth more delicate appearance in the printed model.

DISTINCTIVE FEATURES

- Smooth Finish
- Engineering-grade durable material
- High tenacity
- High tensile strength
- High impact strength
- Good heat resistance
- Wear resistant
- Chemical resistant
- Superior moulding performance
- Superior machining performance
- Heated bed required

APPLICATIONS

Ideal to use for complex models, functional prototypes and parts that require mechanical strength and post print machining. This filament supports a wide range of uses across areas including education, design and development, engineering and various other industries.

ABS

1.75mm

1kg



GENERAL SPECIFICATION

Series	3D Printing Filament
Type	ABS Basic
Spool Size	1kg
RoHS	
Reach	
FDA Approved	



MATERIALS

Material	ABS
Finish	Smooth
Colour	See Part Number Table

Main Filament Property Parameters	
Filament Type	ABS Basic
Water Absorbion (%) Equalibrium in water, 23°C)	1
Tensile Strength (MPa)	35-40
Flexural Strength (MPa)	65-70
Modulus of Elasticity (MPa)	1500-1650
Izod Notched Impact ((kg/m ²) Strength (IZOD, 23°C)	7-10.5
Elongation at Break (%)	12-17
Heat Deflection Temperature (°C) (HDT@0.455MPa (66psi))	88
Melt Flow Rate	2-4g/10min
Density	1.04-1.06g/cm ²



ENVIRONMENTAL/OPERATING SPECIFICATION

Printing Parameters	
Printing with enclosure recommended	Yes
Nozzle Operating Temperature °C	230-250
Bed Operating Temperature °C	100-110
Nozzle Diameter	Ø0.4/0.6mm (Ø0.4mm recommended)
Cooling Fan	0-50%
Retraction Speed	30-50mm/s
Retraction Length	1-3mm
Printing Speed	40-250mm/s
Support Materials	Self supporting, HIPS
Printing & Storage Environment, Humidity	Room temperature up to 40°C, ≤ 20% RH (sealed with desiccant)
Printable on build plate sticker	Yes
Printable on glass plate	Yes (with glue stick)
Printable on PEI sheet	Yes
Soluble with common solvents	Soluble in acetone
Dry Box Recommended	No
Hardened Nozzle Required	No
Pre-print processing (Drying conditions before printing)	Drying 80°C, 5 hours (using convection oven)
Post-print processing	-



PART NUMBER TABLE

Part Number	Colour	Filament Diameter (mm ²)	EAN	UNSPSC	Country of Origin
25-0341	Black	1.75	5053556032334	23261601	China
25-0342	White	1.75	5053556032341	23261601	China
25-0343	Natural	1.75	5053556032358	23261601	China
25-0344	Grey	1.75	5053556032365	23261601	China
25-0345	Red	1.75	5053556032372	23261601	China
25-0346	Green	1.75	5053556032389	23261601	China

For further information on pricing, delivery, and long-term stock agreements please get in touch with your local business development contact, telephone our main office on **01206 838000** or email **Sales@Rapidonline.com**.

