

# 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 restistant
- Chemical restistant
- 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.











### **GENERAL SPECIFICATION**

Series	3D Printing Filament
Туре	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 Absorbtion (%) 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/m²) 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 <sup>2</sup>			





## **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	Colour	Filament Diameter (mm²)	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**.



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