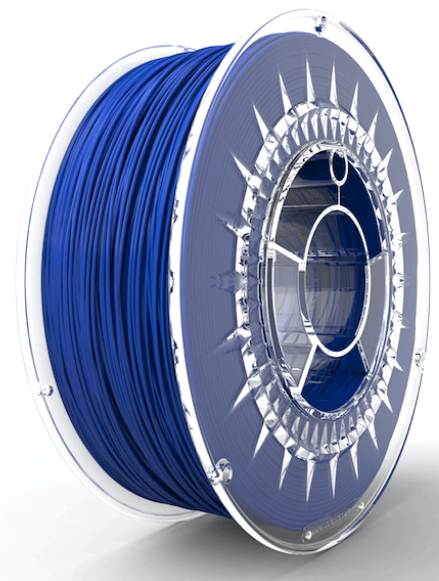


Product card: ABS+ filament for 3D printing.

**Product description:** Filament ABS+ - thermoplastic product in the form of fiber, used for 3D printing using the FFF method. Filament wound on a spool, vacuum packed with a moisture absorber. The spool contains 1 kg of net material. It can be used in all FFF printers that are not protected from external suppliers and open source structures before using. ABS+ is easily machined such as grinding, drilling or smoothing, the material is soluble in acetone.

Physical properties of the product:

Diameter of filament	1.75 mm / 2.85 mm
Dimensional tolerance of filament	+/- 0.05 mm
Roundness of filament	+/- 0.02 mm
Surface of the material	Gloss
Shrinkage of the material	Large
Product weight	1.0 kg net, 1.36 kg gross
Spool - material	Transparent polycarbonate
Weight of the empty spool	~250 g
The diameter of the spool	200 mm
Width of spool	~70 mm
Diameter of mounting hole	52 mm
Packaging	Printed cardboard
Package size	~205x205x80 mm
Vacuum packing	Yes
Moisture absorber	Yes



Suggested printing parameters:

Hotend	230-240°C
Heated bed	90-100°C
Cooling the printout	Not recommended

*Due to the structural differences of printers, the above figures should be considered as guidelines and the corresponding values must be determined experimentally.*

## Physical properties of the material:

Specific Gravity	1.04 g/cm <sup>3</sup>	ASTM D792
Vicat Softening Temperature	94°C	ASTM D1525
Flammability	HB	UL 94
Rockwell Hardness (R-Scale)	105	ASTM D785
Tensile Strength - Yield	430 kg/cm <sup>2</sup>	ASTM D638
Tensile Elongation - Break	30%	ASTM D638

## Availability of colors and diameters:

Color	Kolor	1.75	2.85
Natural	Naturalny	✓	
White	Biały	✓	✓
Bright Yellow	Jasnożółty	✓	✓
Bright Orange	Jasnopomarańczowy	✓	
Orange	Pomarańczowy	✓	
Red	Czerwony	✓	✓
Gray	Szary	✓	
Blue	Błękitny	✓	
Super Blue	Niebieski	✓	✓
Navy Blue	Granatowy	✓	
Bright Green	Jasnozielony	✓	✓
Green	Zielony	✓	
Gold	Złoty	✓	
Aluminum	Aluminiowy	✓	
Black	Czarny	✓	✓