

Product card: TPU flexible filament for 3D printing.

**Product description:** TPU filament - thermoplastic polyurethane 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. The use of filament in printers with a bowden type extruder (with a filament guide tube) may be impossible or very difficult. TPU is a material with high chemical resistance, including oils and greases. Printouts from TPU are characterized by high flexibility and very good bonding of layers.

Physical properties of the product:

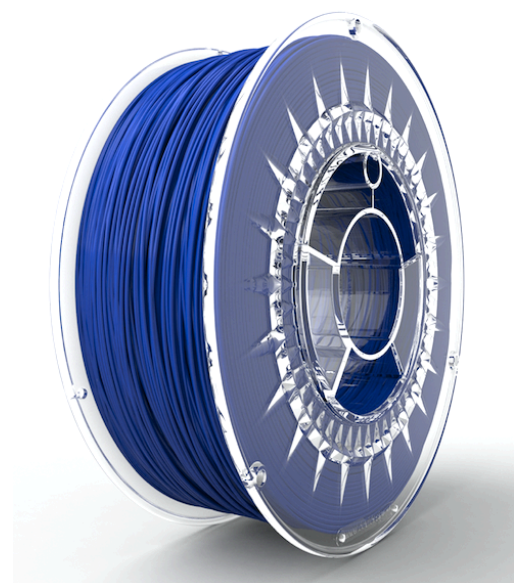
Diameter of filament	1.75 mm
Dimensional tolerance of filament	+/- 0.05 mm
Roundness of filament	+/- 0.03 mm
Surface of the material	Light Gloss
Shrinkage of the material	Low
Product weight	1.0 kg net, 1.4 kg gross
Spool - material	Transparent polycarbonate
Weight of the empty spool	~257 g
The diameter of the spool	200 mm
Width of spool	~70 mm
Diameter of mounting hole	52 mm
Packaging	Printed cardboard
Package size	~230x210x80 mm
Vacuum packing	Yes
Moisture absorber	Yes



Suggested printing parameters:

Hotend	210-230°C
Heated bed	20-80°C
Cooling the printout	Recommended
Comments	Low speed of printing 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:

Density	1.23 g/cm <sup>3</sup>	ISO 1183 - 1A
Hardness (Shore D)	55D	ISO 868
Tensile Strength	44 MPa	ISO 37
Elongation at break	400%	ISO 37
Tear strength	180 N/mm	ISO 34 - 1B/b
Abrasion Resistance	35 mm <sup>3</sup>	ISO 4649

## Availability of colors and diameters:

Color	Kolor	1.75
Natural	Naturalny	✓
White	Biały	✓
Bright Yellow	Jasnożółty	✓
Bright Green	Jasnozielony	✓
Red	Czerwony	✓
Super Blue	Niebieski	✓
Aluminum	Aluminiowy	✓
Black	Czarny	✓