Devil Design Sp. J.
Zwirki i Wigury 65
43-190 Mikolow
Poland

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, 1.36 kg gross
Spool - material	Transparent policarbonate
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	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.

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Physical properties of the material:

Density	1.23 g/cm3	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 mm3	ISO 4649

Availability of colors and diameters:

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