

## 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 kg (net), 1,4 (including packaging)

Weight of the empty spool 257 g

The diameter of the spool 200 mm

Width of spool 70 mm

Diameter of the mounting hole 52 mm

Packaging printed no box

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:

1,75 mm . BLACK