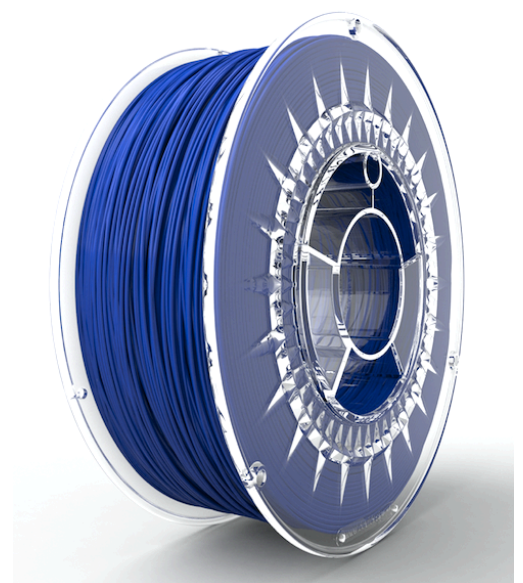


Product card: TPU flexible filament for 3D printing.

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 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 | 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 ³ | 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 ³ | ISO 4649 |

Availability of colors and diameters:

| Color | Kolor | 1.75 - 1kg | 1.75 - 0,33kg |
|---------------|--------------|------------|---------------|
| Natural | Naturalny | ✓ | |
| White | Biały | ✓ | |
| Bright Yellow | Jasnożółty | ✓ | ✓ |
| Red | Czerwony | ✓ | |
| Super Blue | Niebieski | ✓ | |
| Bright Green | Jasnozielony | ✓ | ✓ |
| Aluminum | Aluminiowy | ✓ | |
| Black | Czarny | ✓ | |