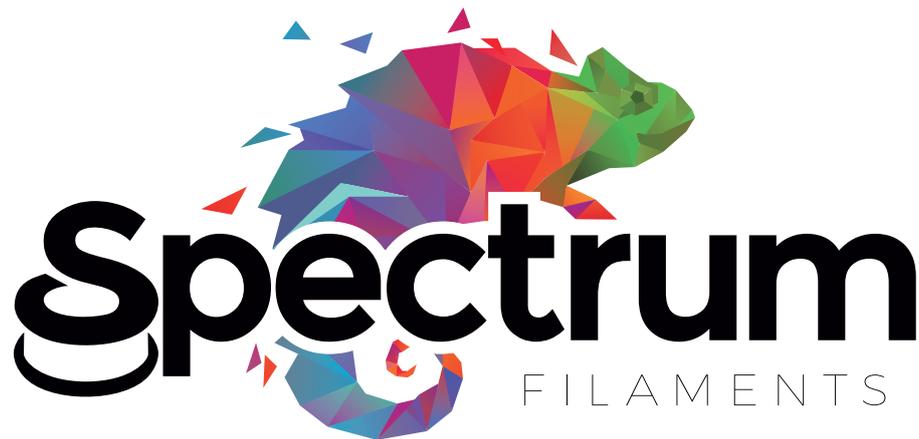




DATA / SHEET

Premium filament for 3D printing



BASIC PET-G FILAMENTS

The filament Spectrum PETG is a material based on glycol-modified polyethylene terephthalate. Items printed using this material have a high content of the crystalline phase, which allows for the near transparency effect at a small number of outer perimeters of additive manufactured items. A major advantage provided by PETG are the virtually zero shrinkage rate and low absorption of moisture as compared to other thermoplastics used for FDM/FFF 3D printing. However, its moisture resistance is restricted to temperatures below 70°C, as above the temperature the material undergoes hydrolysis. As regards other properties of Spectrum PETG, note the good creep resistance under constant load conditions. It results from the very good cohesion between the layers of the material applied. This leads to a much lower mechanical anisotropy in the printed items, which means that for each manufacturing direction the mechanical properties differ less than in other thermoplastics designed for 3D printing. Items manufactured with PETG maintain stable properties over a long life.

■ Additive manufacturing using Spectrum PETG gives prints which demonstrate:

- A high transparency as compared to other materials for additive manufacturing,
- Very good mechanical properties as regards rigidity, hardness and impact resistance,
- Good resistance to cyclic impacts,
- Stable dimensions and shapes as compared to other materials for additive manufacturing,
- Very low absorption of ambient moisture.

Combined with chemical resistance, the very good mechanical properties of PETG determine the application of this material for the manufacturing of items with a relatively high dimensional accuracy and stability of both shapes and mechanical properties. Accordingly, these are mainly gear wheels and slide bearings subject to relatively high static loads in an aqueous environment. PETG is also used to manufacture semi-transparent enclosures and backlit sections of various boards and signs. Thus the filament PET-G combines the advantages of PLA and ABS. It also provides for nearly trouble-free printing and exceptional adhesion between layers.



■ Material advantages

- water-repellent
- odour-free
- highly durable and resilient
- a food-grade base material
- virtually shrinkage-free
- chemically resistant

■ Available in

- 1.75 mm
- 2.85 mm



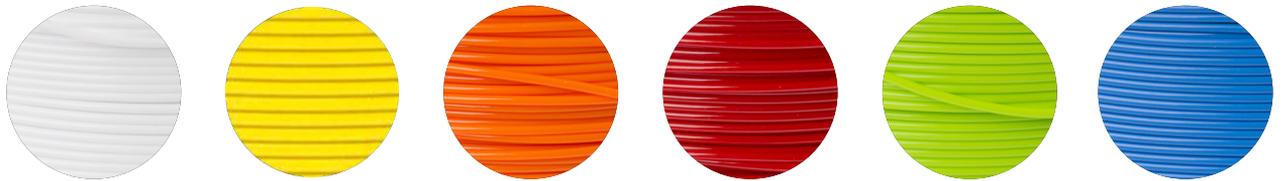
■ Specification

| | | |
|---|-----------------------|-----------------|
|  | Tolerance: | ±0.05 mm |
|  | Roundness: | 95% |
|  | Printing temperature: | 230-255°C |
|  | Heated bed: | 60-80°C |
|  | Weight: | 1000 g / 2000 g |

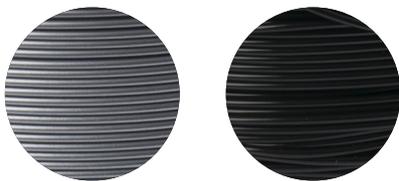
COLOR VARIATIONS

current range of colors,
always available on our website:
www.spectrumfilaments.com

SOLID COLORS



| | | | | | | |
|-------|--------------|---------------|-------------|------------|------------|--------------|
| Color | Arctic White | Bahama Yellow | Lion Orange | Bloody Red | Lime Green | Pacific Blue |
| RAL | N/A | 1018 | 2004 | 3020 | 6018 | 5015 |



| | | |
|-------|-------------|------------|
| Color | Silver Star | Deep Black |
| RAL | 9007 | 9017 |

TRANSPARENT COLORS



| | | | | | | |
|-------|------------------|--------------------|-----------------|--------------------|--------------|--------|
| Color | Transparent Blue | Transparent Orange | Transparent Red | Transparent Yellow | Bottle Green | Glassy |
| RAL | N/A | N/A | N/A | N/A | N/A | N/A |

COULD NOT FIND THE COLOR YOU NEED?

We are able to produce for you any color from the RAL palette or according to the given color sample.

Just write us!

office@spectrumfilaments.com





Spectrum Group Sp. z o.o.

Parkowa 85
05-806 Pecice
Poland

Contact us:

office@spectrumfilaments.com
+48 608 109 008

Visit us at:

www.spectrumfilaments.com

[f](https://www.facebook.com/spectrumfilaments) [i](https://www.instagram.com/spectrumfilaments) /spectrumfilaments