

PET-G Carbon

MATERIAL PROPERTIES

| | | |
|--|------------------------|-------------|
| Specific Gravity | 1.32 g/cm ³ | ISO 1183 |
| Mechanical Properties | | |
| Charpy impact strength (sample 80x10x4 mm) | | |
| Unnotched, 3D printing | 17 kJ/m ² | ISO 179-1eU |
| Notched, 3D printing | 5.4 kJ/m ² | ISO 179-1eU |
| Tensile elongation at break (3D printing)* | 4,90% | ISO 527-1 |
| Tensile strength at break (3D printing)* | 45 MPa | ISO 527-1 |
| Elastic modulus 3D printing | 4250 MPa | ISO 527-1 |
| Thermal Properties | | |
| VICAT, 50 N (heating rate 50°C/h) | 80°C | ISO 306 |

*speed 5mm/min

GUIDELINE FOR PRINT SETTINGS*

| | |
|-------------------------|------------------|
| Nozzle temperature | 230-255°C |
| Bed temperature | 60-80°C |
| Active cooling fan | YES (up to 100%) |
| Layer height** | 0.05 - 0.30 mm |
| Shell thickness** | 0.40 - 2.70 mm |
| Print speed** | 30-70 mm/s |
| Closed chamber | not necessary |
| Dry box | not necessary |
| Ruby or hardened nozzle | recommended |

* settings are based on a 0,4 mm nozzle.

** depending on the geometrical complexity

DESCRIPTION

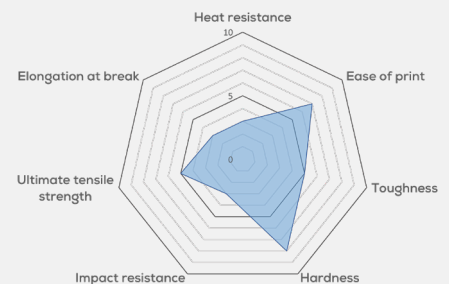
Spectrum PET-G Carbon is a modified, PET-G-based filament blended with carbon fibres which contributes to a considerably higher rigidity, hardness and tensile resistance, while retaining low shrinkage and very good adhesion to build platforms typical for the pure PET-G. The 10% addition of carbon fibres enables to obtain matte surfaces of printed items, which greatly improves the aesthetic properties of printed items.

FEAURES

- improved hardness and rigidity as compared to the pure PET-G
- higher plasticisation temperature as compared to the pure PET-G
- improved abrasion resistance
- much higher compression resistance as compared to the pure PET-G
- good mechanical properties
- high aesthetic, matte surface quality
- no shrinkage after cooling

STORAGE AND SHELF LIFE

Filament should be stored in a dry room at room temperature. Recommended storage temperature is ca. 18-25°C (64.4 -77.0°F). Keep out of moisture, sunlight and direct heat. When stored properly, product has a shelf life of 24 months.



SUPPORT

If you have any questions or experience any issues, please do not hesitate to contact us at support@spectrumfilaments.com