

# PET-G Premium

## MATERIAL PROPERTIES

|                                       |                        |       |
|---------------------------------------|------------------------|-------|
| Specific Gravity                      | 1.27 g/cm <sup>3</sup> | D 792 |
| <b>Mechanical Properties</b>          |                        |       |
| Tensile Stress at Yield               | 26 MPa                 | D 638 |
| Tensile Stress at Break               | 48 MPa                 | D 638 |
| Elongation at Break                   | 58,00%                 | D 638 |
| Elongation at Yield                   | 4,30%                  | D 638 |
| Tensile Modulus                       | 1950 MPa               | D 638 |
| Flexural Strength                     | 64 MPa                 | D 790 |
| Flexural Modulus                      | 1880 MPa               | D 790 |
| Rockwell Hardness, R Scale            | 108                    | D 785 |
| Izod Impact Strength, Notched @ 23°C  | 126 J/m                | D 256 |
| Izod Impact Strength, Notched @ -40°C | 57 J/m                 | D 256 |
| <b>Thermal Properties</b>             |                        |       |
| Heat Deflection Temperature           | 70°C                   | D 648 |

## 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**           | 40-120 mm/s      |
| Closed chamber          | not necessary    |
| Dry box                 | not necessary    |
| Ruby or hardened nozzle | not necessary    |

\* settings are based on a 0.4 mm nozzle.

\*\* depending on the geometrical complexity

## Disclaimer

The product- and technical data provided in this datasheet is correct to the best of Spectrum Group Sp. z o.o. knowledge and are intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. Actual values may vary according to printing conditions, model complexity, environmental conditions, etc. The user assumes all responsibility for the use of all information provided and shall verify quality and other properties or any consequence from the use of all such information. Typical values are indicative only and are not to be construed as being binding specifications. Spectrum Group Sp. z o.o. shall not be made liable for any damage, injury or loss induced from the use of Spectrum Group Sp. z o.o. materials in any particular application.

## DESCRIPTION

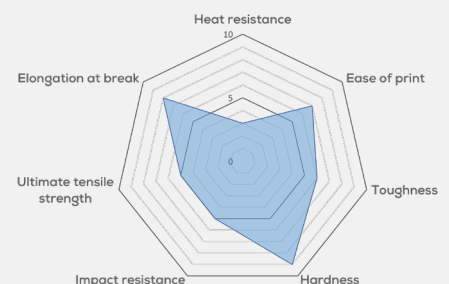
Spectrum PET-G Premium is the second most popular material for desktop 3D printing. Major advantage provided by Spectrum PET-G Premium are the virtually zero shrinkage rate and low absorption of moisture as compared to other thermoplastics used for FDM/FFF 3D printing. Items manufactured with PET-G maintain stable properties over a long life. Spectrum PET-G Premium combines advantages of PLA and ABS.

## FEAUTURES

- high transparency as compared to other materials for additive manufacturing
- very good mechanical properties as regards rigidity, hardness and impact resistance
- chemical resistance
- high dimensional accuracy
- combines the advantages of PLA and ABS
- exceptional adhesion between layers
- odour-free printing

## 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](mailto:support@spectrumfilaments.com)