

# PET-G FR V0

## MATERIAL PROPERTIES

Density	1.26 g/cm <sup>3</sup>	ISO 1183
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### Mechanical Properties

Charpy impact strength, notched*	3 kJ/m <sup>2</sup>	ISO 179-1eA
Tensile Elongation at Yield**	3,30%	ISO 527 (1)
Tensile Elongation at Break**	40,00%	ISO 527 (1)
Tensile Strength at Yield**	40 MPa	ISO 527 (1)
Tensile Strength at Break**	25 MPa	ISO 527 (1)
Elastic modulus***	2350 MPa	ISO 527 (1)

### Thermal Properties

VICAT Softening point****	70°C	ISO 306
HDT 0.45 MN/m <sup>2</sup> , annealed	63°C	ISO 75
HDT 1.81 MN/m <sup>2</sup> , annealed	58°C	ISO 75

### Flammability

Oxygen index*	35%	D 2863
Glow Wire Flammability Index*	960°C @ 1mm	IEC 60695-2-12
Glow Wire Flammability Index*	960°C @ 2mm	IEC 60695-2-12
Glow Wire Ignition Test*	775°C @ 1mm	IEC 60695-2-13
Glow Wire Ignition Test*	775°C @ 2mm	IEC 60695-2-13

### Electrical Properties

Comparative Tracking Index - solution A	600 V	IEC 60114
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(without surfactant)

\*injection moulding

\*\* (speed 5mm/min), injection moulding

\*\*\* (speed 1 mm/min), injection moulding

\*\*\*\*50 N (heating rate 50°C/h), injection moulding

## 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	not necessary

\* settings are based on a 0.4 mm nozzle.

\*\* depending on the geometrical complexity

## DESCRIPTION

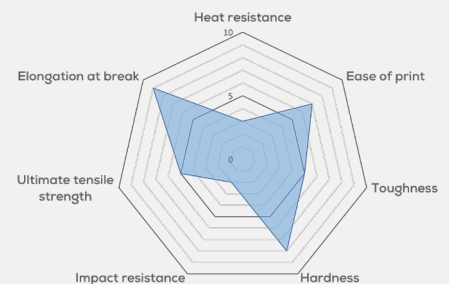
Spectrum PET-G FR V0 is a new halogen-free, flame-resistant 3D printing material based on the ever-popular PET-G. The filament is designed according to UL 94 V0\* flammability rating requirements, meaning that the vertical burning of the filament or printed part does not exceed 10 seconds. \*The filament is not certified by Underwriters Laboratories and does not have a UL number.

## FEAURES

- designed to meet UL 94 V0\* standards
- flame-resistant, self-extinguishing
- halogen-free
- excellent dimensional stability

## 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)

# PET-G FR V0

**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.