

# FlameGuard PLA

## MATERIAL PROPERTIES

Specific Gravity	1.26 g/cm <sup>3</sup>	D 792
MFR (210°C, 2.16kg)	10 g/10min	-
Mechanical Properties		
Tensile Strain at Break	10%	
Tensile Strength at Yield	36.8 MPa	ISO 527
Young's Modulus	2.6 GPa	
Notched Izod Impact Strength	8.3 J/m	ISO 180
Thermal Properties		
HDT (amorphous)	55°C	DSC
HDT (crystalline)	90°C	DSC
Fire Resistance (0.8mm)	V0	UL94
Fire Resistance (3.2mm)	V0	UL94

## GUIDELINE FOR PRINT SETTINGS\*

Nozzle temperature - standard speed	210-240°C
Bed temperature	40-60°C
Active cooling fan	YES (up to 100%)
Layer height**	0.05 - 0.30 mm
Shell thickness**	0.40 - 2.70 mm
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

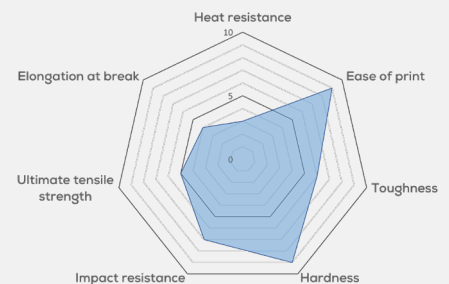
Spectrum FlameGuard PLA is a halogen-free, flame-retardant filament designed for applications requiring both durability and fire safety, meeting V0 UL94 standards. It is an eco-friendly alternative to FR ABS, offering recyclability and a significantly lower carbon footprint.

## FEAUTURES

- flame retardancy V0 (UL94)
- Halogen-free, environmentally friendly
- Eco-friendly alternative to ABS FR
- 7 times lower carbon footprint than ABS FR
- Similar mechanical properties to ABS FR

## 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)