

TECHNICAL DATA SHEET

Pellet PLA Carbon

MATERIAL PROPERTIES

Density	1.30 g/cm ³	ISO 1183
Mechanical Properties		
Charpy impact strength (sample 80x10x4 mm)		
Unnotched, at +23°C	55 kJ/m²	ISO 179-1eU
Notched, at $+23^{\circ}$ C	8 kJ/m²	ISO 179-1eA
Tensile elongation at break (3D printing)*	0.5%	ISO 527(1)
Tensile strength at break (3D printing)*	65 MPa	ISO 527(1)
Elastic modulus	12500 MPa	ISO 527(1)
Electrical properties		
Electrical resistivity	6E1 ohm	D 257
Thermal properties		
VICAT softening point	60°C	N/A

^{*}speed 5mm/min

GUIDELINE FOR PRINT SETTINGS*

Bed temperature 0-45°C Active cooling fan YES (up to 100%) Closed chamber not necessary Dry box not necessary Ruby or hardened nozzle recommended	Nozzle temperature	190-220°C	
Closed chamber not necessary Dry box not necessary	Bed temperature	0-45°C	
Dry box not necessary	Active cooling fan	YES (up to 100%)	
	Closed chamber	not necessary	
Ruby or hardened nozzle recommended	Dry box	not necessary	
	Ruby or hardened nozzle	recommended	

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

DESCRIPTION

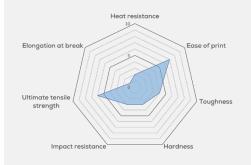
Spectrum Pellet PLA Carbon is a product enriched with 10% carbon fiber, ensuring an increase in stiffness, hardness and tensile strength while maintaining low shrinkage and very good adhesion to working platforms typical of PLA. The addition of carbon fiber allows the user to obtain matte surfaces of the printed elements, which increases the aesthetic value of the finished models.

FEAUTURES

- improved hardness and rigidity as compared to the pure PLA
- improved abrasion resistance
- · much higher compression resistance
- · good mechanical properties
- · high aesthetic, matte surface quality

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

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 Spectum Group Sp. z o.o. materials in any particular application.

