

# Pellet PLA Carbon

## MATERIAL PROPERTIES

|                                             |                        |             |
|---------------------------------------------|------------------------|-------------|
| Density                                     | 1.30 g/cm <sup>3</sup> | ISO 1183    |
| <b>Mechanical Properties</b>                |                        |             |
| Charpy impact strength (sample 80x10x4 mm)  |                        |             |
| Unnotched, at +23°C                         | 55 kJ/m <sup>2</sup>   | ISO 179-1eU |
| Notched, at +23°C                           | 8 kJ/m <sup>2</sup>    | 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) |
| <b>Electrical properties</b>                |                        |             |
| Electrical resistivity                      | 6E1 ohm                | D 257       |
| <b>Thermal properties</b>                   |                        |             |
| VICAT softening point                       | 60°C                   | N/A         |

\*speed 5mm/min

## GUIDELINE FOR PRINT SETTINGS\*

|                         |                  |
|-------------------------|------------------|
| Nozzle temperature      | 190-220°C        |
| 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      |

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

## DESCRIPTION

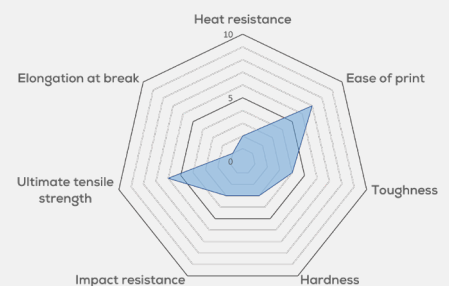
Spectrum Pellet PLA Carbon is a product enriched with 10% carbon fiber, ensuring an increase in stiffness, hardness and tensile strength while maintaining low shrinkage and very good adhesion to working platforms typical of PLA. The addition of carbon fiber allows the user to obtain matte surfaces of 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](mailto:support@spectrumfilaments.com)