



Bilby 3D

MATERIAL DATA SAFETY SHEET

Issued in Australia by Bilby 3D Pty Ltd.

The attached Material Data Safety Sheet has been prepared by the manufacturer outside Australia.

In accordance with Australia WHS regulations the following Australian contact details apply

Section 1: AUSTRALIAN COMPANY DETAILS

In Australia the product is imported and distributed by:
Bilby 3D Pty Ltd

Mailing Address :

Kingsgrove Business Centre, 7/192 Kingsgrove Rd, Kingsgrove NSW 2208

Head Office Address :

Kingsgrove Business Centre, 7/192 Kingsgrove Rd, Kingsgrove NSW 2208

Contact Phone: 1800 847 333

Section 2: AUSTRALIAN EMERGENCY CONTACT

Emergency Contact

In the event of an emergency please contact:

Poisons Information Centre 24 hour Telephone Advice Line on 13 11 26

Section 3: AUSTRALIAN ISSUE DATA

Date of Issue : 1 March 2020

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/m ²	ISO 179-1eU
Notched, at +23°C	8 kJ/m ²	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*

Nozzle temperature	190-220°C
Bed temperature	0-45°C
Active cooling fan	YES (up to 100%)
Layer height**	0.05 - 0.30 mm
Shell thickness**	0.40 - 2.70 mm
Print speed**	40-70 mm/s
Closed chamber	not necessary
Dry box	not necessary
Ruby or hardened nozzle	recommended

* 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

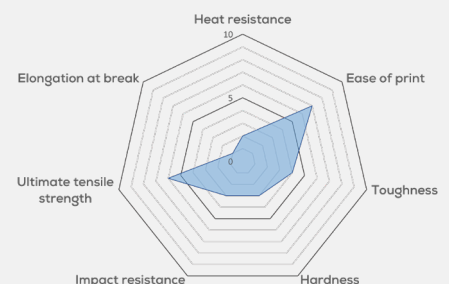
Spectrum Carbon PLA is a modified, PLA-based filament blended with carbon fibers which contributes to a considerably higher rigidity, hardness and tensile resistance, while retaining low shrinkage and very good adhesion to build platforms typical for the pure PLA. The 10% addition of carbon fibre enables to obtain matte surfaces of printed items, which greatly improves the aesthetic properties of printed items.

FEAURES

- 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