Spectrum FILAMENTS

TECHNICAL DATA SHEET

PLA Premium

MATERIAL PROPERTIES

Specific Gravity	1.24 g/cm³	D 792
MFR (210°C, 2.16kg)	6 g/10min	D 1238
Mechanical Properties		
Tensile Strength at Break	53 MPa	D 882
Tensile Yield Strength	60 MPa	D 882
Tensile Modulus	3.5 Gpa	D 882
Tensile Elongation	6,00%	D 882
Notched Izod Impact	16 J/m	D 256
Flexural Strength	83 MPa	D790
Flexural Modulus	3.8 MPa	D790
Thermal Properties		
Heat Distortion Temperature	55°C	E 2092
Glass Transition Temperature	55-60°C	D3418

GUIDELINE FOR PRINT SETTINGS*

Nozzle temperature	185-215°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**	40-150 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

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.

DESCRIPTION

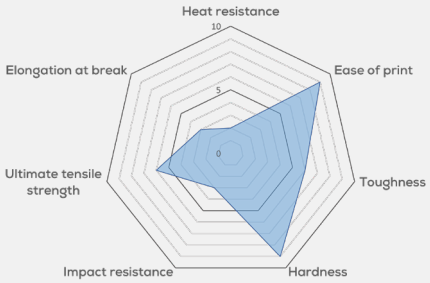
Spectrum PLA Premium is a most popular filament based on polylactide which belongs to aliphatic polymers. It shows full biodegradability. The choice of an appropriate dye base for the pellets for filament extrusion ensures a highly efficient printing with an extremely good adhesion of printed items to the build beds of FDM/FFF 3D printers. Spectrum PLA Premium yields excellent surface quality and detail, producing reliable results.

FEAUTURES

- made of biodegradable raw materials
- good mechanical properties (high hardness and tensile resistance)
- user friendly
- high aesthetic surface quality
- good for creating high-resolution parts
- high rigidity of printed items

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**