

# PLA Matt

## MATERIAL PROPERTIES

Density	1.24 g/cm <sup>3</sup>	ISO 1183
<b>Mechanical Properties</b>		
Charpy impact strength (sample 80x10x4 mm)		
Unnotched, 3D printing	14 kJ/m <sup>2</sup>	ISO 179-1eU
Notched, 3D printing	3.5 kJ/m <sup>2</sup>	ISO 179-1eA
Tensile elongation at break (3D printing)*	2.9%	ISO 527 (1)
Tensile strength at break (3D printing)*	30 MPa	ISO 527 (1)
Elastic modulus	2750 MPa	ISO 527 (1)
<b>Thermal Properties</b>		
VICAT softening point **	85°C	ISO 306
Heat Deflection Temperature		
0.45 MN/m <sup>2</sup> , annealed (4h @ 90°C)	116°C	ISO 75
1.81 MN/m <sup>2</sup> , annealed (4h @ 90°C)	66°C	ISO 75

\*speed 5mm/min

\*\* 50 N (heating rate 50°C/h), annealed

## GUIDELINE FOR PRINT SETTINGS\*

Nozzle temperature	190-230°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**	40-110 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 Spectrum Group Sp. z o.o. materials in any particular application.

## DESCRIPTION

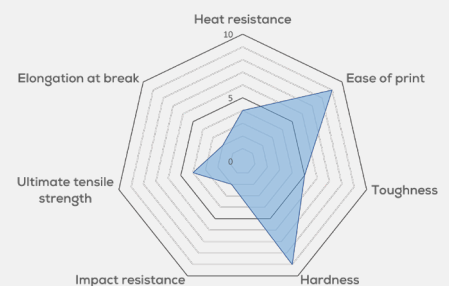
Spectrum PLA MATT is a PLA-based material with a chemical composition modified so that it is possible to obtain matte surfaces of printed object. The matte finish of printed items considerably improves their aesthetic properties and also minimises the visibility of layers on the side surfaces of printed items.

## FEAUTURES

- high quality matte side surface with hardly visible layers
- increased adhesion between the layers
- high durability
- high rigidity of items
- improved strength properties in terms of impact, elasticity and durability compared to elements made of classic PLA
- UV stabilization

## 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

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