

PLA Matt

MATERIAL PROPERTIES

Density	1.24 g/cm ³	ISO 1183
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Mechanical Properties

Charpy impact strength (sample 80x10x4 mm)		
Unnotched, 3D printing	14 kJ/m ²	ISO 179-1eU
Notched, 3D printing	3.5 kJ/m ²	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)

Thermal Properties

VICAT softening point **	85°C	ISO 306
Heat Deflection Temperature		
0.45 MN/m ² , annealed (4h @ 90°C)	116°C	ISO 75
1.81 MN/m ² , 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

DESCRIPTION

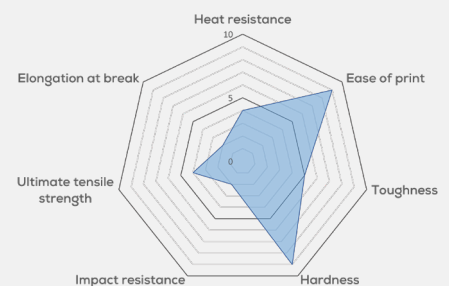
Spectrum PLA MATT is a PLA-based material with a chemical composition modified so that it is possible to obtain matte surfaces of printed object. The matte finish of printed items considerably improves their aesthetic properties and also minimises the visibility of layers on the side surfaces of printed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