

PLA Thermoactive

MATERIAL PROPERTIES

Specific Gravity	1.24 g/cm ³	D 792
MFR (210°C, 2.16kg)	6 g/10min	D 1238

Mechanical Properties

Tensile Strength at Break	53 MPa	D 882
Tensile Strength at Yield	60 MPa	D 882
Tensile Modulus	3.5 Gpa	D 882
Elongation at Break	6,00%	D 882
Elongation at Yield	16 J/m	D 256
Notched Izod Impact Strength	83 MPa	D790
Flexural Strength	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	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**	40-110 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

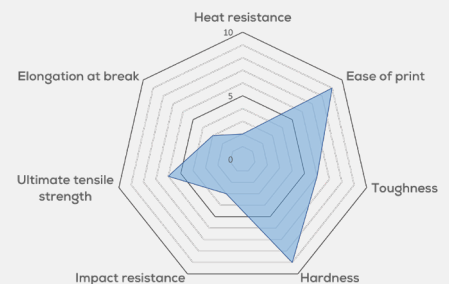
Spectrum PLA Thermoactive is a filament based on pure PLA blended with a thermochromic pigment. Due to this extremely original addition, additive manufactured items change their colour according to the temperature. The colour changes from red to cream once the surface temperature of the item exceeds 30°C. The previous colour is restored gradually once the item reaches its initial temperature.

FEAUTURES

- colour changing ability at ca. 30°C
- warp-free printing
- excellent layer lamination
- high aesthetic surface quality
- no shrinkage after cooling

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