# THE FILAMENT HT-PLA

## **MATERIAL PROPERTIES**

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|---|----|--|--|
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|   |    |  |  |

| Specific Gravity                     | 1.2 g/cm3 | ISO 1183 |
|--------------------------------------|-----------|----------|
| Mechanical Properties                |           |          |
| Tensile Strength                     | 44 MPa    | ISO 527  |
| Tensile strength at break            | 27,5 MPa  | ISO 527  |
| Elongation at break                  | 12 %      | ISO 527  |
| Tensile modulus                      | 2620 MPa  | ISO 527  |
| Flexural Modulus                     | 3350 MPa  | ISO 178  |
| Charpy impact strength notched, 23°C | 2,1 kJ/m2 | ISO 179  |
| Thermal Properties                   |           |          |
| Heat Deflection Temperature          | 108°C     | DSC      |
| VICAT                                | 140°C     | DSC      |
|                                      |           |          |

## **GUIDELINE FOR PRINT SETTINGS\***

| Nozzle temperature                  | 195-220°C  |
|-------------------------------------|--|
| Nozzle temperature (High Speed)     |  |
| Bed temperature                     | 40-50°C  |
| Closed chamber for printing         | not necessary  |
| Dry box recommended                 | No   |
| Ruby or hardened nozzle recommended | No   |
| Adhesive                            | not necessary (if you need increased adhesion or prevent warping: glue stick, Dimafix, 3DLac, Magigoo) |
| Cooling                             | 40-80%   |
| Surface finish                      | shiny  |
|                                     |  |

<sup>\*</sup> settings are based on a 0,4 mm nozzle.

Features

## 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**

VICAT - 140°, biodegradable, odour-free printing

If you have any questions or experience any issues, please do not hesitate to contact us at support@spectrumfilaments.com

#### Disclaime

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.

The Filament www.spectrumfilaments.com Preparation date: 23-07-2025

<sup>\*\*</sup> depending on the geometrical complexity