

## **TECHNICAL DATA SHEET**

# WOOD

## MATERIAL PROPERTIES

Density	1.15 gcm <sup>3</sup>	ISO 1183
Melt flow rate (190°C/2.16kg)	2.5-5.0 g/10 min	ISO 1133
Melting temperature	> 155°C	ISO 3146-C
Mechanical Properties		
Modulus of elasticity	2900 MPa	ISO 527
Tensile strength	47 MPa	ISO 527
Tensile strain at tensile strength	5,00%	ISO 527
Tensile stress at break	38MPa	ISO 527
Tensile strain at break	6,50%	ISO 527
Notched impact strength (Charpy), RT	4.4 kJ/m2	ISO 179-1/1 eA
Impact Strength (Charpy), RT	21 kJ/m2	ISO 179-1/1 eU

## **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**	20-50 mm/s	
Closed chamber	not necessary	
Dry box	not necessary	
Ruby or hardened nozzle	not necessary	
Recommended nozzle	≥ 0.4 mm	

\* 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 WOOD is a material designed for 3D printing based on pure PLA blended with natural wood particles. Spectrum WOOD filament is a 100% organic and biodegradable product. Besides the visual aspects which imitate the appearance of wood, items manufactured of this material have a structure resembling the one of chipboards. The material has a unique quality: not only does it looks like wood, but it also feels like genuine wood, because of natural wood content in the composition.

### FEAUTURES

- made of biodegradable raw materials
- natural wood content
- perfect side surface of prints
- very good thermal insulation properties
- allows for grinding and varnishing
- typical smell and appearance of wooden chipboards

## 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

