

## **TECHNICAL DATA SHEET**

# **PPS AM230**

#### **MATERIAL PROPERTIES**

Density	1.33 g/cm <sup>3</sup>	ISO 1183
Mechanical properties		
Charpy impact strength, unnotched* (23°C)	18 kJ/m²	ISO 179-1eU
Charpy impact strength, notched* (23°C)	1,3 kJ/m²	ISO 179-1eA
Tensile Elongation at Break*	2,00%	ISO 527(1)
Tensile Strength at Break*	65 MPa	ISO 527(1)
Elastic modulus tensile* (speed 1mm/min)	3650 MPa	ISO 527(1)
Thermal properties		
VICAT Softening point* 50N	236°C	ISO 306
Heat Deflection Temperature		
0.45mn/m <sup>2*</sup>	129°C	ISO 75
1.81mn/m <sup>2*</sup>	107°C	ISO 75

<sup>\*</sup>injection moulding

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

Nozzle temperature	300-330°C	
Bed temperature	100-120°C	
Active cooling fan	0 - 10%	
Layer height**	0.05 - 0.30 mm	
Shell thickness**	0.40 - 2.70 mm	
Print speed**	30-70 mm/s	
Closed chamber	active heated (60-80°C)	
Dry box	not necessary	
Ruby or hardened nozzle	not necessary	
Adhesive required	YES (Magigoo Pro HT)	
Drying (if wet)	recommended***	

 $<sup>^{</sup>st}$  settings are based on a 0,4 mm nozzle.

#### Dicelaimer

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

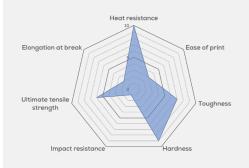
Spectrum PPS AM230 is a high-temperature filament based on an engineering polymer PPS offering exceptionally high mechanical properties. Even under continuous loading at high temperatures rigidity, strength and creep resistance remain unchanged. The filament also has remarkable chemical resistance – it is virtually insoluble in any known solvent, including concentrated acids and bases. A distinctive feature of Spectrum PPS AM230 is its inherent non-flammability, even without using flame-retardant additives.

#### **FEAUTURES**

- · excellent chemical resistance
- · very high dimensional stability
- solvent resistance
- · high dielectric strength
- perfect bonding of the layers

#### 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



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

<sup>\*\*\*</sup> at least 3h at  $90^{\circ}\mathrm{C}$  using hot dry air owen