

PA6 Neat BK

MATERIAL PROPERTIES

Specific gravity	1.25 g/cm ³	ISO 1183
Water absorption, 23°C/24h	<0.3%	ISO 62
Melt flow rate (MFR), 250°C / 2,16kg	5,5 g/10 min	ISO 1133
Linear mould shrinkage	0.3-0.5 %	DIN 16742

Mechanical Properties at 23°C / 50% rh

Tensile strength (dry, at 50 mm/min)	78 MPa	ISO 527
Elongation at max. force (dry, at 50 mm/min)	4,40%	ISO 527
Modulus of elasticity (dry, at 1 mm/min)	3.4 GPa	ISO 527
Impact strength (dry, 80x10x4mm)	90 kJ/m ²	ISO 179 1eU

Thermal Properties

Heat distortion temperature (HDT A)	90°C	ISO 75
Continous service temperature (20.000h)	120°C	IEC 60216
Service temperature (max. 200h)	160°C	

Electrical Properties

Insulation resistance (strip electrode R25)	>10 ¹² Ω	DIN IEC 60167
Surface resistance (ROB)	>10 ¹² Ω	DIN IEC 60093

GUIDELINE FOR PRINT SETTINGS*

Nozzle temperature	250-280°C
Bed temperature	60-80°C
Active cooling fan	0 - 10%
Layer height**	≥ 0.15mm
Shell thickness**	0.40 - 2.70 mm
Print speed**	30-70 mm/s
Closed chamber	recommended
Dry box	recommended
Ruby or hardened nozzle	not necessary
Drying (if wet)	necessary***

* settings are based on a 0,4 mm nozzle.

*** at least 12h at 80 using a hot dry air oven

** 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 Spectrum Group Sp. z o.o. materials in any particular application.

DESCRIPTION

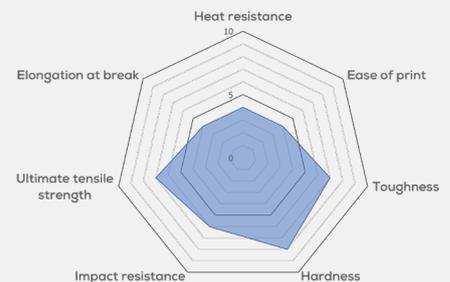
Filament Spectrum PA6 Neat BK is a new, high-temperature PA6-based construction material in black colour. A major feature of the PA6 Neat is its increased mechanical strength as compared to other plastics. The material also features exceptional thermal properties, chemical resistance to oils and lubricants, relatively high resistance to corrosion stimulators and good electrical insulation properties as compared to unmodified PA6 or PA66.

FEAUTURES

- low linear processing shrinkage (0.3%)
- high creep resistance
- good tribological properties, including dry friction conditions such as in slide bearing
- chemical resistance to lubricants and oils

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