

PEBA

MATERIAL PROPERTIES

Physical

Density	1.02 g/cm ³	ISO 1183
Shore D Hardness	43	ISO 868
Shore A Hardness	92	ISO 868

Mechanical

Tensile modulus, 23°C, injection moulding	100 Mpa	ISO 527-1/-2
Tensile strength, 23°C, injection moulding	25 MPa	ISO 527-1/-2
Elongation at break, 23°C, injection moulding	>500 %	ISO 527-1/-2
Flexural modulus, 23°C, injection moulding	90 Mpa	ISO 178
Flexural strength, 23°C, injection moulding	5 Mpa	ISO 178

GUIDELINE FOR PRINT SETTINGS*

Nozzle temperature	200-240°C
Bed temperature	0-50°C
Recommended printing speed	15-70 mm/s
Cooling	up to 100%
Density	1.02 g/cm ³
Closed chamber for printing	not necessary
Dry box recommended	Yes
Ruby or hardened nozzle recommended	No
Surface finish	shiny
Adhesive	not necessary*

* 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

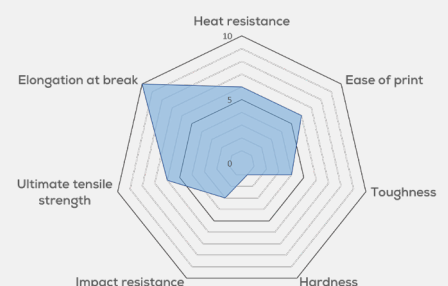
Spectrum PEBA is a premium-class flexible filament that combines the elasticity of rubber with the durability of an engineering polymer. Based on Polyether Block Amide (PEBA) copolymer, it represents a new generation of flexible 3D printing materials – lighter, more dynamic, and more durable than TPU. Thanks to its unique molecular structure, Spectrum PEBA doesn't absorb and dampen energy like typical TPU but stores and releases it instead. This ensures an exceptionally fast return to the original shape and outstanding material responsiveness.

FEATUERS

- Shore hardness 92A
- Elongation at break >500%
- Rapid recovery – “high rebound” effect
- Retains flexibility at low temperatures
- Lightweight structure – density 1.02 g/cm³
- High chemical resistance
- Excellent interlayer adhesion

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