Spectrum FILAMENTS

TECHNICAL DATA SHEET

S-Flex 98A

MATERIAL PROPERTIES

Density	1,09 g/cm³	ISO 1183-1
Shrinkage	0,80%	D 955
Shore hardness A	98	ISO 7619
Mechanical Properties		
Tensile strength	55 MPa	DIN 53504
Ultimate elongation	510,00%	DIN 53504
100% Tensile Modulus	15,4 MPa	DIN 53504
300% Tensile Modulus	25 MPa	DIN 53504
Tear strength	120 N/mm	ISO 34-1
Abrasion Resistance	30 mm³	ISO 4649
Compression set / 70 h @ 23°C	32,00%	ISO 815
Compression set / 24 h @ 70°C	50,00%	ISO 815
Bayshore Rebound Resilience	30,00%	D 2632

GUIDELINE FOR PRINT SETTINGS*

Nozzle temperature	200-230°C
Bed temperature	50-70°C
Active cooling fan	YES (up to 100%)
Layer height**	0.05 - 0.30 mm
Shell thickness**	0.40 - 2.70 mm
Print speed**	20-70 mm/s
Closed chamber	not necessary
Dry box	recommended
Ruby or hardened nozzle	not necessary

* 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

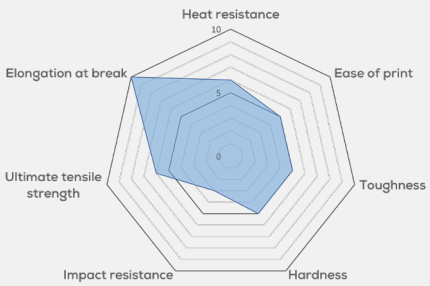
Spectrum S-Flex 98A is a filament based on a thermoplastic polyether polyurethane. The distinguishing feature in the filament name 98A – relates to the hardness of the material on the Shore scale and classifies Spectrum S-Flex 98A in the category of hard elastomers. An additional advantage that allows obtaining a perfect printout is very good adhesion of the first layer of the printed part to the working space, regardless of whether it is made of glass, steel, plastic or other material.

FEAUTURES

- high resistance to hydrolysis
- up to 510% elongation at break
- high tensile and tear resistance
- low shrinkage
- resistance to many common industrial oils and chemicals
- reduced stringing while the printer is running idle

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**