

ASA Kevlar

MATERIAL PROPERTIES

Density	1.07 g/cm ³	ISO 1183
Mechanical properties		
Charpy impact strength, unnotched*	25 kJ/m ²	ISO 179-1eU
Charpy impact strength, notched*	7,5 kJ/m ²	ISO 179-1eA
Tensile Elongation at Yield*	2,80%	ISO 527 (1)
Tensile Elongation at Break*	6,00%	ISO 527 (1)
Tensile Strength at Yield*	40 MPa	ISO 527 (1)
Tensile Strength at Break*	35 MPa	ISO 527 (1)
Elastic modulus tensile* (speed 1mm/min)	2200 Mpa	ISO 527 (1)
Thermal properties		
VICAT Softening point* 50N	94°C	ISO 306
Heat Deflection Temperature		
0.45mn/m ² *	89°C	ISO 75
1.81mn/m ² *	79°C	ISO 75

*Injection moulding

GUIDELINE FOR PRINT SETTINGS*

Nozzle temperature	240-270°C
Bed temperature	80-100°C
Active cooling fan	0 - 25%
Layer height**	≥ 0.15 mm
Shell thickness**	0.40 - 2.70 mm
Print speed**	30-70 mm/s
Closed chamber	not necessary
Dry box	not necessary
Ruby or hardened nozzle	not necessary

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

** depending on the geometrical complexity

DESCRIPTION

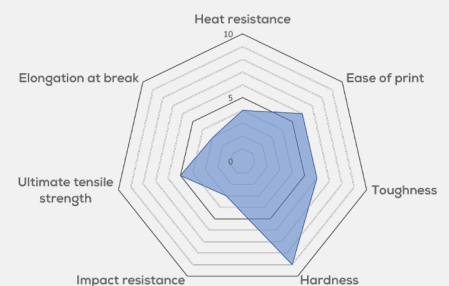
Spectrum ASA Kevlar filament is a technical composite material based on a combination of ASA copolymer and aramid fibres. The aim of producing composite materials by combining different types materials is to impart new properties, previously unattainable for separate components. As a base for the composite, we used the ASA copolymer, well known for its high resistance to weather conditions, combining it with aramid, which is used to make some of the strongest synthetic fibres.

FEAUTURES

- Aramid fibers reinforced (10%)
- good aging resistance
- very strong impact resistance
- relatively high chemical resistance
- UV resistance
- printable on desktop devices without a heated chamber
- matt print surface
- 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