

ABS GP450

MATERIAL PROPERTIES

Specific Gravity	1.04 g/cm ³	ISO 1183-1
Melt Flow Rate (220°C, 10kg)	18 cm ³ /10'	ISO 1133

Mechanical Properties

Yield Stress (50mm/min)	39 MPa	ISO 527-1,2
Elongation at Break (1mm/min)	13,00%	ISO 527-1,2
Tensile Modulus (1mm/min)	2100 MPa	ISO 527-1,2
Flexural Modulus (2mm/min)	2000 MPa	ISO 178
Izod Impact Strength, Notched @ 23°C	19 KJ/m ²	ISO 180-1A
Izod Impact Strength, Notched @ -30°C	10 KJ/m ²	ISO 180-1A
Ball Indentation Hardness	95 N/mm ²	ISO 2039-1

Thermal Properties

Vicat Softening Temperature	95°C	ISO 306
Burning behavior (1,6mm)	HB	UL94

GUIDELINE FOR PRINT SETTINGS*

Nozzle temperature	235-255°C
Bed temperature	100°C
Active cooling fan	0 - 25%
Layer height**	0.05 - 0.30 mm
Shell thickness**	0.40 - 2.70 mm
Print speed**	30-200 mm/s
Closed chamber	recommended for larger prints
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

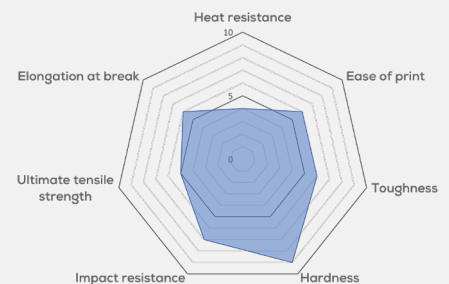
Spectrum ABS GP450 is an industrial grade, construction filament for 3D printing. It is a material with an amorphous structure, its popularity is due to high impact strength, hardness, and relatively high scratch resistance. The composition of the material – compared to classic ABS – has been optimized for additive manufacturing, which allows printing at a very high speed (up to 200mm/s) without any mechanical properties losses ABS GP450 exhibits much higher mechanical strength than other similar materials available on the market.

FEAUTURES

- industrial grade material
- high impact resistance
- scratch resistance
- high mechanical strength
- high speed printing (200mm/s) without quality losses
- very robust lamination of 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