

## TECHNICAL DATA SHEET

### Spectrum Filaments PET-G FX120

The material offered by Spectrum Group Sp. z o.o. has been developed and adapted to general modeling. Tests performed by Spectrum Group Sp. z o.o. have showed that it is feasible to use the offered product in most 3D printers operating in FDM/FFF technology. Before the first use, it is advisable to print out a hard proof to check if the filament is compatible with user's printer. All shown data are typical properties. The information were processed with the best knowledge of the manufacturer and it is for information only. Users should confirm results by their own tests.

Identification	
Trade name	Spectrum Filaments PET-G FX120
Chemical name	Copolyester
Use	Additive Manufacturing
Origin	Spectrum Group Sp. z o.o.

Filament specification	
Diameter	1.75mm $\pm$ 0.05mm
Verify your spool	Yes

Material properties		
Properties	Typical value	Test method
Density	1.13 g/cm <sup>3</sup>	D792
Tensile Stress at Yield	14 MPa	D638
Tensile Stress at Break	22 MPa	D638
Elongation at Yield	38%	D638
Elongation at Break	400%	D638
Flexural Modulus	150 MPa	D790
Tear Strength	350 N	D1004
Brittleness temperature	<70°C	D746
Izod Impact Strength, notched	40 J/m (@-40°C)	D256
Vicat Softening Temperature	170°C	D1525
Heat Deflection Temperature	120°C	N/A
Hardness (Shore A)	95A	D2240
Hardness (Shore D)	55D	D2240

#### Guidline for print settings\*

Nozzle temperature	240 - 260°C
Bed temperature	80°C
Active cooling fan	Yes (up to 100%)
Layer height**	0.10 - 0.25mm
Shell thickness**	0.40-1.60mm
Print speed**	30-70mm/s
Bed adhesive	3DLac, Dimafix, buildTak
Heated chamber	recommended

\* settings are based on a 0.4mm nozzle

\*\* the range depends on the geometrical complexity

#### Key features:

- Dimensional stability
- Chemical resistance to lubricants and oils
- Excellent temperature resistance
- Excellent durability
- Low odour
- Steam sterilizable
- Styrene-free
- 95A Shore hardness