

PA12 CF15

MATERIAL PROPERTIES

Specific Gravity	1.07 g/cm ³	ISO 1183
MFR (210°C, 2.16kg)	3 g/10min	ISO 1183
Mechanical Properties*		
Tensile Stress at Break	125 MPa	ISO 527-1/2
Tensile Strain at Break	5%	ISO 527-1/2
Tensile Modulus	8000 MPa	ISO 527-1/2
Charpy Impact Strength	75 kJ/m ²	ISO 179/1eU
Charpy Notched Impact Strength	15 kJ/m ²	ISO 179/1eU
Thermal Properties		
Temperature of deflection under load		
0.45 MPa	170°C	ISO 75-1/2
1.8 MPa	150°C	ISO 75-1/2
Flammability (1.6mm)	HB	UL94

GUIDELINE FOR PRINT SETTINGS*

Nozzle temperature - standard speed	255-290°C
Bed temperature	>80°C
Active cooling fan	0-10%
Layer height**	0.5 - 3.0 mm
Shell thickness**	≥ 0.2 mm
Closed chamber	recommended for larger prints
Dry box	Yes
Ruby or hardened nozzle	Yes
Drying (if wet)	recommended***
Adhesive	not necessary (if increased adhesion needed or to prevent warping: Magigoo PA)

* settings are based on a 0.4mm nozzle

** depending on the geometrical complexity

*** at least 6h at 80°C using a hot dry air oven

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

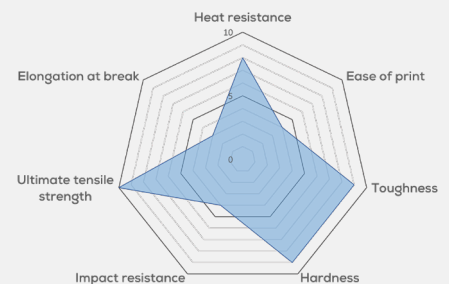
PA12 CF15 is an advanced technical filament reinforced with 15% carbon fibers, offering exceptional strength, rigidity and dimensional stability. It provides outstanding thermal resistance making it an excellent choice for applications requiring durability in extreme conditions. It is also resistant to chemicals and moisture, making it suitable for demanding industrial environments.

FEAUTURES

- 15% carbon fiber reinforcement
- 10% lighter than PA6 CF15
- high thermal resistance up to 170°C
- reduced moisture absorption compared to standard PA12 nylon
- dimensional stability and low shrinkage

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