

## Nanovia PETG :

### Functional prototypes

PETG is a filament resistant up to 80°C. It is 50% stronger than ABS, and twice as flexible as PLA. Suitable for parts subjected to shocks, it fails progressively and can be used for functional prototypes. Glycolated PET is better adapted for 3D printing thanks to improved inter-layer adhesion, and can be used on all 3D printers.

### Avantages

- Easy to print
- Temperature resistant up to 80°C
- Functional prototypes
- Native material for food EU 10/2011

### Application recommendations

#### Storage

- Store in airtight container with desiccant, out of direct sunlight.
- Dehydrate for 4h at 60°C prior to printing after prolonged exposure to humidity.

#### Post treatment

- For useage in direct sunlight it's recommended either paint or apply a protective UV coating to a PETG 3D printed part.

### Properties

#### 3D Printing

Extrusion temperature	220 – 240 °C	
Plate temperature	80 – 90 °C	
Enclosure temperature	20 °C	
Nozzle (minimal)	tous	
Diameter	1.75 & 2.85 mm	+/- 50µm
Colours	black, white, transparent (native) yellow, red, blue, green, orange, gray	

#### Mechanical properties

##### Physical

Density	1.27 g/cm <sup>3</sup>	ISO 1183
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##### Tensile

Test performed at 1mm/min on 3D printed test specimins at 0°, along with the tension stress.

Young's modulus	2260 MPa	ISO 527-2/1A
Ultimate strength	44 MPa	ISO 527-2/1A
Ultimate strength elongation	3.2 %	ISO 527-2/1A



## Health and safety


### Printing

- Print in a ventilated room

### Post treatment

- Standard PPE recommended (dust mask, gloves)

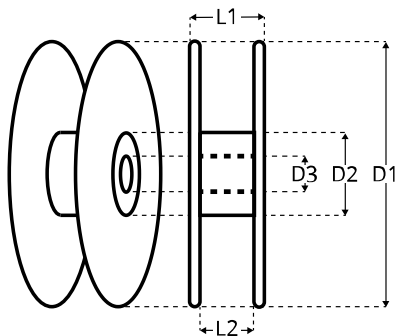
### Certifications

- Nanovia PETG ROHS Certified : 
- Food contact certified granules : EU Plastics Regulation 10/2011

### Packaging

Vacuum packed spools, with desiccant, packed in individual boxes and engraved serial number.

Other formats available on demand.



Spool	L1 (mm)	L2 (mm)	D1 (mm)	D2 (mm)	D3 (mm)	Tare (g)
750 g	55	49	200	115	57	194
2 kg	95	87	300	195	57	502
4.5 kg	100	92	300	110	57	430

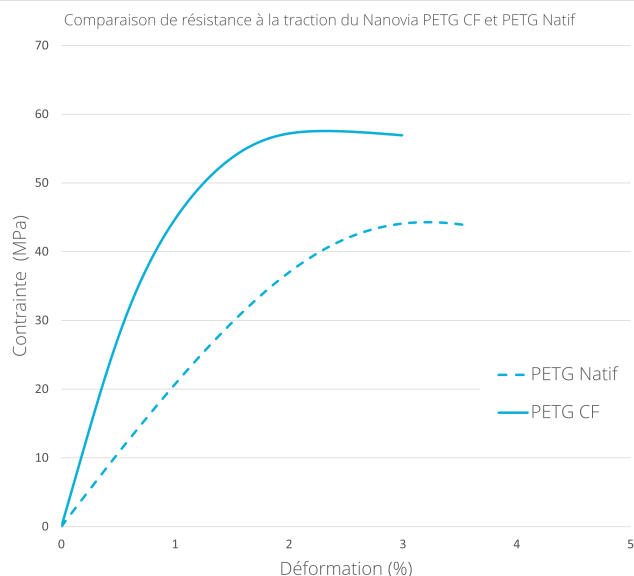
[www.nanovia.tech/ref/petg](http://www.nanovia.tech/ref/petg)

Test performed at 1mm/min on 3D printed test specimens at 0°, along with the tension stress.

Young's modulus	2130 MPa	ISO 527-2/1A
Ultimate strength	43 MPa	ISO 527-2/1A
Ultimate strength elongation	3.4 %	ISO 527-2/1A

Test performed at 1mm/min on 3D printed test specimens at 0°, along with the tension stress.

Young's modulus	1835 MPa	ISO 527-2/1A
Ultimate strength	23 MPa	ISO 527-2/1A
Ultimate strength elongation	1.5 %	ISO 527-2/1A



### Impact

Charpy (notched)	20 kJ/m <sup>2</sup>
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### Thermal properties

Tg	80 °C
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last updated : 21/02/2024